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Garland Ray Wells, Major Professor

We have read this thesis and recommend its acceptance:

John C. Rennie, Charles L. Cleland

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To the Graduate Council:

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OPINIONS AND ATTITUDES OF PRACTICING CONSULTING FORESTERS ABOUT THE TVA/ACF CONSULTING FORESTER ASSISTANCE PROGRAM

A Thesis
Presented for the
Master of Science
Degree

The University of Tennessee, Knoxville

Kevin P. Hoyt June 1988 U.T. Archives

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ABSTRACT

In 1970, The Tennessee Valley Authority (TVA) initiated the Consulting Forester Assistance (CFA) Program. The program was a cooperative among TVA, the Association of Consulting Foresters (ACF), various state forestry agencies, and the U.S. Forest Service, State and Private Forestry. The program's objective was to assist in the establishment of new private forest consultants in the Tennessee Valley, a seven state region. The goal was to have new consultants work primarily with non-industrial private forest landowners as clients in private forestry development.

A key to past success of the 18-year program has been the strong support of cooperators, and their ability to find new non-competitive geographic areas, not near established consulting forestry operations. The opinions and support of these public and private foresters will likely determine the future role of the program regardless of past success.

In 1987 an independent study was made by The University of Tennessee under contract with the ACF to evaluate the CFA program. Two mailed questionnaires were used to obtain opinions from both state "service" foresters and consulting foresters about the program. An attempt was made to obtain a balanced sample between ACF and non-ACF members for comparison purposes. The usable response rate of 72.4 percent was obtained from consulting foresters. All state foresters responded to a separate questionnaire.

Generally, state "service" foresters (appointed by each State Forester) were not in support of continuing the program, with the exceptions of the State of Tennessee and the State of Alabama. Minor differences were found between the opinions of ACF and non-ACF members, with over 48 percent of both groups not supporting continuation of the program. Most respondents offered their ideas for either changing the program or suggesting alternatives in lieu of continuing the program. The general level of program awareness was very low, including ACF members. Consultants with high levels of knowledge about the program were, in general, more supportive of the program. This finding suggests that there is a need for better public relations information about the program in order to obtain continued professional support by all cooperating agencies.

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CHAPTER I

INTRODUCTION

A. The Tennessee Valley Watershed Region

The Tennessee Valley watershed region encompasses 125 counties in seven states. These states are Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, and Virginia. These counties lie in the Blue Ridge, Valley and Ridge, Cumberland Plateau, Highland Rim, Nashville Basin, and the Mississippi Embayment, which make up the physiographic provinces of the Tennessee Valley. The Tennessee Valley Authority (TVA) also defines an area of 201 counties known as the "201 Power Supply Area" (see Figure 1).

B. The Association of Consulting Foresters (ACF)

The ACF was established in December of 1948 under the initiative of Alexander Setser (Stuart, 1979). The original purpose of the organization was to promote higher ethical and professional standards among the consulting forester profession (Ennis, 1984). Growth of the organization has been phenomenal over the past 39 years, from its small beginning of 5 charter members to its present membership of 381 members, in the United States and Canada (Walsh, 1986).

The organization maintains the following strict guidelines, which must be met before one can gain membership into the organization (Ennis, 1984). A prospective member must have at least a four-year

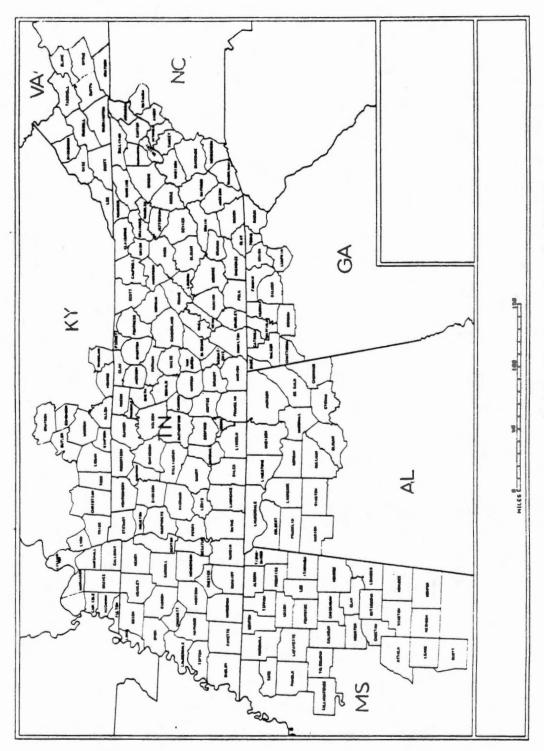


Figure 1. The Tennessee Valley Power Supply Region.

degree in forestry from a college or university approved by the executive board of ACF. The candidate must also have at least five years of "practical" forestry experience with one year in consulting forestry work. Additionally, at least 75 percent of the candidate's adjusted gross income must be derived from actual forestry consulting work. Also, after two years of membership they must attend special continuing education courses sponsored by ACF in two or three regional locations around the United States. Finally, no member may have an occupational conflict of interest such as the owning of an interest in a client's timberland.

Charles Tomlinson (1979), an ACF member, in an address to Alabama ACF members, summed up the definition of an ACF consulting forester as:

A consulting forester as defined by the Association of Consulting Foresters is a technically trained professional forester who devotes at least 75 percent of his working time to performing any and all types of technical forestry work including the protection, development, management, and utilization of land and forest resources. His work is done on a fee or contract basis and his services are available to the general public rather than a single full-time employer. In other words we are independent foresters for hire.

C. The Consulting Forester Assistance Program

The Consulting Forester Assistance (CFA) Program was established in December of 1970 to encourage further economic expansion in forestry in the TVA region. Two prior landowner surveys conducted by TVA showed the need for consulting services.

In 1962, the U.S.D.A. Forest Service (Forest Service) predicted an increase of 80 percent in demand for timber by the year 2000 if current trends in usage continued. Later, in 1965 in the report titled "Timber Trends in the United States" the Forest Service stated that the value of timber and related products accounted for 15 percent of the total value of all farm products produced in 1963 (U.S. Forest Service, 1965).

Additionally, the TVA "Forest Resource Report of 1966" indicated that this region relied heavily upon the forest as an economic base. The forest industry employed some 40,500 people and was ranked third among major industries in the region (TVA Division of Forestry Development, 1966). Annual wood use in the region had increased from 223 million cubic feet in 1937 to 352 million cubic feet by 1970. Product value also increased over the same period from 100 million dollars to one billion dollars (The TVA Handbook, 1984).

The purpose of the first study (completed in 1968) was to assess characteristics of the non-industrial private forest (NIPF) landowners as related to attitudes, interests and knowledge of forest management. The second survey focused on the level of forest management being practiced by NIPF owners in the Tennessee valley (Pitts, 1969).

The major finding of the first survey (as related to the CFAP program) revealed that the best level of forest management yielding the greatest amount of continuity was that of the NIPF lands being managed by consultants (Bradley, 1972).

The second landowner survey completed in 1969 revealed that of the 588 landowners in the sample only 10 percent were found to

be practicing forest management at an acceptable level (as defined by TVA). Moreover, the level of forest management decreased with land-owner age and increased with the level of education, level of income, size of tract, and the length of tenure. While 69 percent of those surveyed were aware of possible markets for their timber, less than half knew how to obtain forest management advice.

Another important survey finding was the fact that NIPF owners were not only interested in better management, but also were willing to pay for it on a business-like basis. Because of this and other survey results (Pitts, 1969), TVA believed that the establishment of consulting foresters would be an ideal way to provide this service in the Tennessee Valley Region (Bennett and Grieve, 1973).

At the time of the CFA's inception, TVA was concerned that the 18.3 million acres of private forest land were producing only half of their full potential. TVA hoped that the program would help alleviate this problem by providing a direct link between the consultants and the NIPF landowners, who owned 86 percent of the private timberland in the Tennessee Valley Watershed. TVA felt that by helping to locate consultants in this area, it would ultimately help to increase the level of forest production through better management and be an incentive for foresters to enter private consulting (Anonymous, 1970).

It was decided that the program would be funded by TVA and partially administered by ACF. Both entities would help provide guidance and technical assistance to program participants (Bennett and Grieve, 1973). In addition, respective states where participants

were located would help the fledgling program by providing referrals to program participants through their state "service" foresters.

Later, the Forest Service, State and Private, would become a cooperator in the program in order to supplement other federally funded projects, including the Forest Incentive Program (FIP).

Services of new consultants would help the vendor services which were deemed to be in short supply at this time.

D. Past Success of the Program

Eleven men have participated in the program (to date) with five of them becoming permanently established in or near their original locations. No ending date has been set for the program, but the past success rate of the program could by itself alleviate the need for expansion without an expanding forest economy. No in-depth evaluation of the program has ever been made. Information is needed for determining if the program is cost effective; should it be continued and if so, in what form; and what is the level of support from program cooperators.

Part of the past success of the program has been the strong support of state personnel for referrals and, also, help in locating new geographic areas where consulting services are generally lacking. The opinions of state "service" foresters and private consulting foresters (via questionnaire) seem therefore critical in determining the future of the program despite its past success.

E. Study Objectives

The following were objectives of the study:

- compile a case history of the 18-year program through historical data;
- determine the opinions and attitudes of cooperators and practicing consultants about the program;
- define the future direction of the program based on research findings from the study.

F. Research Hypothesis

Intuitively, ACF members should be more aware and ultimately more supportive of the continuation of the program than non-ACF members since the program bears the name and past support of the Association.

An alternative hypothesis would be that there are no significant differences in the program knowledge levels among consultants, including their opinions about the program, since consultants hold similar ideas and strong opinions about their profession or business livelihood.

CHAPTER II

LITERATURE REVIEW

Considerable emphasis has been placed on consulting foresters over the past 20 years, both in the form of studies and in programs to enhance services. Consultants are now becoming more active in the management of private forest land holdings in the United States, a land area which constitutes about 74 percent of the total (Field, 1986). Consultants are expected to increase both in numbers and in area under management as state and federal budgets are cut and as private landowners become more aware of the financial benefits of practicing sound forest management.

A. Definitions from Literature

The field of consulting forestry is as broad as the many definitions that are used to describe the profession. The professional consulting forester can offer a number of services ranging from general on-the-ground forestry, to an array of 128 specialties recognized by ACF. Many consultants rely on surveying and engineering, tax advising, appraising, and real estate sales in addition to strictly forestry services. Thus, no general definition can cover all who call themselves consulting foresters.

The general characteristics of consulting foresters are that they are self-employed in private practice or are employed by a

consulting firm. In addition, they offer their service on a fee basis to a wide range of clients. Finally, they all possess technical experience and education in their field of specialization.

Two concise definitions have been offered (Porter, 1961):

A consulting forester is a technically trained, experienced, private forester whose services are available to the public rather than a single full time employer. He is devoted to the management, development, protection and utilization of land and forest resources.

A professional man, trained and experienced in forestry, who offers services to the public on a fee, contract, or contingency basis.

In 1984 Steigewaldt defined a consultant as a full-time independent forester available on a fee basis whose livelihood depends on satisfied clients. He goes on to say that the consultant is not employed directly by timber companies or on a state or federal payroll. However, some publicly employed foresters do consult "on the side" but not on a full-time basis. Furthermore, Kronrad and Albers (1984) offered a different definition that:

Consulting foresters are technically trained professionals who perform forest management work, including the protection, development, marketing and utilization of land and forest resources.

Although the definitions vary somewhat, the main point is that consulting foresters are primarily privately employed foresters who work on a fee basis. Because of this, there can be no comparison to the state "service" forester or the industry forester who works with the private landowner. Larson (1986) writes that the state "service" forester's primary responsibility should be the education of landowners and if technical assistance is given, it should be limited by law or policy.

Industrial foresters have programs to aid the private landowner, but these are primarily for the procurement of wood for their
mills. These programs provide sound technical management advice,
but usually do not provide the full range of services (i.e., tax
advising, surveying, environmental planning, etc.) that the consultant does.

Industrial Foresters are also in an apparent conflict of interest by both representing the buyer and seller. However, some industrial foresters make referrals to consultants when their services are restrictive. For example, if the industrial firm does not have the markets for all their clients' timber, a consultant might be called in to do the job.

B. Clients of the Consulting Forester

Prior study findings have shown that most clients of consulting foresters are NIPF landowners, who control most of the private commercial timberland in the United States. However, Field (1986) reported that the forest industry, government agencies, and various non-profit organizations were also large employers of consulting forestry services.

Although NIPF landowners are the main target group, several factors have deferred the management of these lands to their fullest potential. First, considering most NIPF lands are relatively small holdings, a cash flow problem exists which often limits the use of consultants. Other factors were that NIPF owners are not well

educated about the benefits that can be derived from sound forest management. Also, "free" services are sometimes provided by state "service" foresters and industrial foresters which further erode the base of potential clients.

However, the need for consultants is expected to continue because of the budget cutbacks of state personnel and the increasing education efforts of NIPF owners by state and extension foresters.

The forest industry has also experienced budget and staff cutbacks through mergers; this may result in a temporary increase in consultant services to clients in areas of layoffs. Major forest industries have often encouraged the use of consultants to market high quality hardwood stands (Walsh, 1986) and many consulting foresters worked for forest industry before entering the consulting field. Larson (1986) suggested that consultants might act as agents to NIPF owners when dealing with the industry landowner assistance programs for fairness of price and volume determinations.

The state and federal governments also employ consulting foresters for a multitude of services. Walsh (1986) reported that the State of Virginia contracts services such as timber marking and prescribed burning on a regular basis to consultants. The Forest Service has also used consultants for stewardship contracts on National Forest lands; such use is expected to increase due to federal cutbacks in programs, services and staff. Other agencies have followed suit, most notably the USAID forestry projects, which solicit consulting foresters for overseas projects. The Army Corps

of Engineers and the Bureau of Land Management are other examples of tederal employers of consultants.

C. Services of the Consulting Forester

Consulting foresters traditionally have provided a wide array of services ranging from on-the-ground forestry services to many different specialty services requiring expertise in allied fields. Field (1986) reported that the top four categories of services rendered by consultants were "survey/planning" (provided by 51.4 percent of respondents), on-the-ground practices (48.6 percent), timber marking and sales (21.4 percent), and timber inventory and appraisals (16.0 percent). Although these services dominated the most recent national consultant survey, other services are also being provided due to changing trends in the economy and the emphasis being put on environmental awareness.

The following includes areas not already mentioned: cost and economic studies; entomology; fire protection; information and communication; international forestry; logging and road engineering; land use planning; natural history interpretation; naval stores operations; range management; real estate services: wood preservation, technology and seasoning (Walsh, 1986).

D. Other Consulting Forester Studies

Over the past 20 years a significant number of studies have been completed concerning consulting foresters, mostly on a state and regional basis.

Pleasonton (1968) attempted a 100 percent mail survey of consulting foresters from 12 southern states. Of the 300 questionnaires mailed, a random sample of 20 percent was set aside for further indepth personal interviews. The purpose of this study was to assess the personal qualifications of each consultant. Characteristics such as education obtained, experience, and the financial status of each firm were measured. Pleasonton found that 228 consultants were employed by 198 southern firms. In a later study (1969) Pleasonton reported consultants being concerned with an increase in the number of public and industrial foresters, intensified competition for the same clients and comparing with and combating "free" services provided by these two groups.

In 1976 ACF attempted a nation-wide study of forestry consultants to develop a profile of these professionals (Martin, 1977). Martin, with the help of John Bradley, then president of ACF, compiled a list of 1301 consultants in the United States. These listings came from information furnished by aCF, the Society of American Foresters (SAF), and the Forest Service. The ACF study yielded only a 10 percent response rate of which ACF members constituted 45 percent.

In 1977 the Forest Service and SAF attempted a nationwide survey of consulting foresters. Myers and Goforth (1980) reported findings of that study showing a 60 percent response rate from the 900 questionnaires sent. Like the ACF study, the purpose was to provide a statistical profile of the consulting field. It was also

noted that the state and federal foresters needed up-to-date directories of consultants for referral purposes. The data were used to compile a nationwide directory of 449 consultants.

Kronrad et al. (1980) conducted a study on consulting foresters in the State of Massachusetts to assess service costs rendered to NIPF owners. They reported that a known population of approximately 75 consultants existed in the State of Massachusetts. They attempted a 50 percent telephone survey in that state. They specifically inquired about average fees for the following services: management plans; timber marking; timber sale administration; cordwood sale; TSI work; boundary location and marking; planting costs; pruning costs; and the construction of fire roads. They concluded that through the use of FIP and the Massachusetts state yield tax, NIPF owners could afford and could use the consultants' services to increase the value of their tracts.

In 1982 Kronrad and Albers (1984) repeated a similar study of North Carolina consultants through the telephone survey method. The study population was 101 consultants who practiced mainly in North Carolina. Consultants were asked what fees were charged for specific services rendered in 1982. The services asked about in this survey were "almost identical" to the Massachusetts survey. The main findings focused on the variation in fee rates through different areas of the state. They explained this variability by differences in tract size, topography, local market constraints, and the condition and composition of the stands in question.

Straka (1985) used a mail survey of 800 foresters in Mississippi, including consultants, to assess their continuing education interests. A 15 percent response was obtained. Questions were asked about seven general areas in 62 specific subjects. He concluded that consulting foresters have a stronger interest in continuing education than do non-consultants. The major subject areas consultants specified as being important were: applied forest operations; public relations skills; and "management/economic skills."

In 1984, Fusco et al. (1985) surveyed all South Carolina resident consulting foresters plus all others who practiced at least 95 percent of their work in the state. The purpose of the study was to assess the consultants' activity and impact on the management of NIPF lands, which constituted 73 percent of the states' commercial forest acreage. This survey was a follow-up of two similar surveys in 1967 and 1977, which were the basis for updating data on consultants. The data from the 1984 survey were used to provide a profile of the South Carolina consulting forester. The overall response rate obtained by the survey was 53 percent. The survey also was used to assess the measure of the consulting forester in impacting the forest management levels in the state. It was felt that this information could be used by forest management groups for long-range planning of forest resources of the state.

Hodges and Cubbage (1986b) reported on the overall impact consultants play in managing private forests in the state of Georgia.

In their study a 100 percent assessment of Georgia's consultants

(and surrounding states, provided they lived 50 miles from the Georgia state line) was undertaken. From the obtained compiled lists 118 consultants met these criteria and were mailed the questionnaire. A portion of the 118 consultants were selected for personal interviews and overall they obtained a 57 percent response rate. Their major finding indicated that consultants significantly contribute to a large percentage of overall management of the NIPF lands. However, the results also indicated that NIPF owners probably were doing their own "poor" forest management.

In 1982 (Field, 1986) the Forest Service and The University of Maine attempted an updated 100 percent survey of consulting foresters in the United States. A mail questionnaire was sent to 1,905 potential respondents, of which 15 percent responded. The purpose of this study was to assess the personal and professional profile of consultants as well as their major clientele. The researchers also wanted to obtain data on consulting forestry as they related to NIPF owners. Findings of the study indicated that NIPF owners are expected to be the major client type of consulting foresters. This assumption was based on data from the survey and the fact that state reductions in personnel and programs along with the increased education level of NIPF owners. Because of these findings, consultants are expected to be the prime management force on NIPF lands provided the owners are informed about the benefits of sound forest management.

Hodges and Cubbage (1986a) reviewed all previously known consulting forester studies. The overall purpose of this deductive

study was to look at the information compiled from previous studies and note any apparent changes in the profession over time. They were particularly interested if there were specific state and regional differences to be found in the consulting field. Their major conclusions were that regional and state surveys had larger response rates than the national surveys. However, national surveys provided more information in comparing regional differences.

E. Participant Cases of the CFA

The following is a case summary of the CFA initiated in 1970 by the TVA and the ACF. Individual consultants are identified only by numbers, 1-11.

The two "charter" participants started their practices in December of 1970, one in Alabama (consultant-1) and one in North Carolina (consultant-2). Under the terms of their contracts, they were to be allotted a maximum \$10,000 subsidy over a two-year period. The purpose of this subsidy was to enable them to draw a salary while they solicited clients and built up their consulting businesses. The subsidy was to be dispersed in \$600 monthly maximum payments with a \$5,000 total for each year (Bennett and Grieve, 1973).

Both consultants had the advantage of having some forestry experience, but neither had the benefit of being from the area where they were to be located. Consultant-1 had some state "service"

¹Consultant-2 is now deceased.

forester experience, while consultant-2 had some industrial forestry experience. During the first year consultant-1 enjoyed a greater earned income than did consultant-2. However, the second year proved considerably more profitable than the first year for both, showing that a successful consulting business could be established if there was some financial help during the first few lean years (Bennett and Grieve, 1973). Consultant-1 became established through the program and is continuing to practice in Alabama.

Both TVA and ACF felt that the successes of the two "charter" consultants warranted expanding the program. They based this on the ability of the two consultants to become established in their respective locations and that neither used their entire subsidy allotments. They also felt that the program would ultimately cost the taxpayers considerably less in total dollars as compared to the cost of establishing and maintaining additional public service foresters (Bradley, 1976).

Because of the success of the program, new cooperators joined the program both as sponsors and advisors. State and Private Forestry, Forest Service, provided matching funds to help establish consultants working with the vendor service area of the Forest Incentive Program (FIP). The states where these new consultants were eventually located also helped in the final location selection and were to help provide referrals to them. The program took on a new direction by supplying the consultants with guaranteed work loads in the form of yearly allotments of service contracts with the sponsoring agencies. These

contracts were limited to \$18,000 over a three-year period and were to be paid equally by TVA and the Forest Service. The yearly allotments were not to exceed \$8,000 for the first year, \$6,000 for the second year and \$4,000 for the final year of the program (Bollin and Page, 1978).

Consultant-3 was the first participant to begin practice under the modified program. He was located in central Kentucky in February 1975. He had the advantage of being located in an area in which he had established contacts. His work area consisted of a 60 to 70 county area where FIP occupied about 80 percent of his work load. Later, he became a local distributor of TURDON to supplement his income. He stayed in the program for just over two years but was terminated from the program for non-submission of his monthly activity logs. He is not known to be a practicing consultant in his original location (Bradley, 1976).

Three additional participants started their contract agreements in May 1975. The first of these (consultant-4) was located in middle Tennessee where he enjoyed a highly successful business. Consultant-4 had six years of formal forestry education and an extensive background in timber management and procurement. Like the other three consultants, he was to provide vendor services and work with the FIP program. He also worked in forest management providing timber inventory services and writing forest management plans for his clients. A large part of his early business consisted of appraisals for the Army Corps of Engineers on the Tennessee-Tom Bigbee Waterway project.

Ultimately, he was terminated from his contract because his earned income exceeded the limit set forth in his contract, which was a good reflection on the success of his business (Bollin and Page, 1978). He is now known to be practicing in his original location.

Consultant-5 was also located in Tennessee but did not enjoy the success of consultant-4. His location was on the Cumberland Plateau region which lacks an abundance of high quality hardwood stands. Moreover, the NIPF owners in the area had a reluctance to practice good forest management. Because of this and the fact that he had trouble gaining the confidence² for service referrals from local "service" foresters, he found his best work area north in Kentucky and west towards Nashville. FIP was the mainstay of his income, accounting for 75 percent of his adjusted gross income. He resigned from his contract four months early to accept other employment outside the TVA region. His early resignation was attributed to the fact that his guaranteed contractual income would soon be over and he felt that he could not make it financially without the supplement. The most serious problems he faced were poor location and lack of familiarity with the area in which he was located (Bradley, 1976).

Consultant-6 was located in Kentucky in May 1975. He did well with the FIP program, obtaining many referrals from state

²State forestry personnel interviewed anonymously claimed that the consultant, perhaps through inexperience, mishandled an initial client referral. The result ended in a court case, over a timber sale trespass dispute, which the landowner lost.

"service" foresters and the local Agricultural Stabilization and Conservation Service (ASCS) office. He spent 80 percent of his time with the FIP program, mainly in reforestation efforts. He purchased all the necessary tree planting equipment because he felt he could make it by specializing in this endeavor. However, he did encounter heavy competition from about 20 individuals whom he thought might have been "moonlighting" state employees (Bradley, 1976). He resigned in March of 1976 after using only \$7,734 of the allotted \$8,000 for the first year of operations. He is not known to be practicing consulting forestry in his original location.

The next two participants were placed in Kentucky in April 1977. They worked together, forming a single partnership located in central Kentucky. They had the advantage of being located in a "silvicultural" area similar to the one in which they received their education, but both lacked a significant amount of experience. Like the others, they were to work with FIP and provide vendor-type services. Much of their work consisted of timber stand improvement (TSI) and timber sales, which they concentrated in a 60 to 70 mile radius from their office. The two ended their contract agreement after only seven months and accepted other employment (Bollin, 1977).

The next participant (consultant-8) was placed in December 1979 and was the last to come on under the joint TVA-Forest Service program. He was located in Alabama and was to be allotted a maximum of \$32,000 over a two-year period (Southern Lumberman, 1980). He is now an established consultant in his Alabama location. The experience of consultant-8 in the program demonstrated the need for

careful location selection and the need for early program guidance by an established ACF member.

The last three consultants in the program were funded solely through TVA with administrative help of ACF. Other cooperators in the program were the respective states where these consultants were located and the Forest Resource Systems Institute (FORS), which cooperated in placement of the last consultant.

The first of these consultants (consultant-9) was placed in southeastern Virginia in February 1980. He was to be paid for specific jobs by the cooperating agencies and spend the rest of his time building his business. He could have drawn a maximum of \$30,000 for contract jobs he performed during his three-year program. Ultimately, he remained in the program until the completion date but he is not believed to be practicing consulting forestry in his original location.

Consultant-10 was placed in Mississippi in November 1981.

Under the terms of his contract he could receive a maximum \$37,000 over a three-year period. He remained in the program until its expiration date and became established in his original location.

This participant was outstanding in that he was able to establish himself during difficult economic times. Moreover, he was able to get local NIPF owners to use his services despite their lack of knowledge concerning forest management. An important difference in his approach from that of the others in the program was much greater use of advertising to make people aware of his services.

Consultant-11 was the most recent participant in the program. This consultant was a professional forester and a computer technology expert. He was allotted \$40,000 for a three-year period. His main duty was to work with computer software technologies for the consulting forestry field. He was also to develop a library of computer resource material and to write articles for the FORS newsletter.

Consultant-11 has recommended that the program participants should have ample reserves of savings to fund the high capital outlay for equipment needs. In addition, he found that other consultants were not willing, or were unable, to pay him satisfactory compensation for his services. He also found that most computer programming needs of consultants were in the areas of accounting and business, and not necessarily in the forestry end of the business. The most important lesson learned through his program was that the consultant must market himself and his services in order to be successful (Hartel, 1986). Consultant-11 was originally located in North Carolina, but later moved his business to Florida, outside of the TVA region.

F. Similar Establishment Programs

The ACF-TVA CFA was preceded by a similar program in east

Texas which was aimed at increasing NIPF management through the use

of aggregate ownership contracts using consultants. Greene (1977)

reported that the Texas Forest Service (TFS) initiated the landowner

aggregate program in 1968 to increase the management levels of small NIPF tracts through aggregation to make management more cost effective.

The TFS worked in writing the ownership contracts, selection of the consulting forester for the program, and in selecting the aggregate site. In addition, the TFS contacted and encouraged perspective landowners to sign up for the program. Finally, landowners were required to sign long-term management contracts with the selected consultant.

The overall success of the program was measured by the increased management levels on NIPF lands as well as documented increases in stumpage rates for owners in the aggregate. Also, the program grew from its modest membership of 11 to 70 owners in just seven years. The aggregate accounted for just under one-half of all federal cost-share funds allotted for forest management in east Texas.

Although the program was highly successful, the TFS has since discontinued its support. The reasons were (Greene, 1977):

- that the pilot project reduced the need for additional units;
- the TFS found it difficult to find interested consultants for other projects;
- 3. the change in administration of the TFS;
- and, it proved "embarrassing" to the sponsoring agency.

In 1977, Greene studied the two programs (the TVA/ACF CFA and the TFS Aggregate program) for a Master's degree at West Virginia University. The purpose was to design a program to be used in the Stae of West Virginia. Currently, no evidence could be found that such a pilot program was ever started in that state.

Since the initiation of the ACF-TVA program, another program was started which focused on increasing NIPF owners' awareness about forest management by using state "service" foresters. This program was started by the Mississippi Forestry Commission in 1984 (Straka, et al., 1986). In it two "service" foresters were to be established in selected counties to act as "educators" of the NIPF owners. Much of these foresters' time was spent with NIPF owners on a one-to-one basis educating and demonstrating the benefits of sound forest management practices.

The first forester was located in the east central portion of Mississippi and the second was located in the southeast portion of the state. Both foresters were carefully selected and trained for their respective positions which required them only to make contacts with NIPF owners and sell them on the idea of practicing sound forest management. This was accomplished by using a wide array of media including the distribution of written brochures and personal appearances by each forester at meetings of certain local civic organizations.

The average cost to establish a forester in this two-year program (1982-1984) was \$29,531 per year. This included the salary as well as travel and equipment. The major benefit derived through

the program was that within six months the program began to produce more forestry assistance requests by NIPF owners than the county and "service" forester could handle. Also, the local economy had an additional \$500,000 injected into it. Final program results revealed that only one "service" forester was needed per every 3-4 county area to significantly affect the level of forest management by NIPF owners. It is assumed that this increased demand for forest management services will include the consulting foresters in the area if this program is continued.

CHAPTER III

METHODS AND PROCEDURES

A. Sampling Design

The Tennessee Valley Power Supply Region has 201 counties.

Forests now cover 21.3 million acres or 58.2 percent of the total land area of the region and support 10 percent of the nation's hardwood timber reserves (TVA Handbook, 1984).

The forests of this region provide raw materials for the three billion dollar per year forest industries as well as watershed protection, wildlife resources and highly sought recreation pursuits. Commercial forest acreage is estimated to be 20.58 million acres or 97 percent of the total forested area. TVA estimates the annual growing stock at 46 cubic feet/acre/year which could realistically be increased to 65 cubic feet/acre/year under proper forest management.

The target population consisted of all full-time consultants who reside in (or work in) the Tennessee Valley Power Supply Region and the administrative heads of the state forestry agencies in the seven valley states. A complete census was made of this population.

B. Survey Procedure

The survey procedure consisted of mailing out "precoded" questionnaires, via the "Total Design Method" (Dillman, 1978), to

state "service" foresters and later to practicing consulting foresters.

The first questionnaire was mailed directly to the State Forester of each of the valley states. We requested that the questionnaire be filled out by someone in the organization who had worked with and was most knowledgeable about the CFA program. The second questionnaire was mailed directly to all the full-time consulting foresters (214) who live in or work in the TVA region.

To ensure an equal ratio (1:1) of ACF consultants to non-ACF members some consultants residing outside the 50-mile zone of the Tennessee Valley watershed, established by the study, were also included. Also, all ACF members who resided in any part of a Tennessee Valley state were sampled to assure an approximate equal sample of ACF and non-ACF members.

Names for the mailing list of consultants were compiled from state lists, the ACF directory and the SAF directory of consulting foresters.

The first questionnaire (Appendix A) was sent to each State Forester with a cover letter (Appendix C) stating the purpose of the study and assuring complete confidentiality. A return postage paid envelope was included.

The second questionnaire (Appendix B) was sent to practicing consultants with a cover letter (Appendix D) explaining the importance of the study and also insuring complete confidentiality.

Follow-up post cards (Appendix E) were sent after one week as a

reminder of the importance of the study and urging the consultant to respond. If necessary, a new mailing packet including duplicate questionnaire and return postage was sent after three weeks (Appendix F). A final post card (Appendix G) was sent after four weeks with a plea to return the questionnaire or to call the Department of Forestry, Wildlife and Fisheries for a duplicate questionnaire if the original was lost.

C. The Survey Instruments

The final copies of both questionnaires were carefully scrutinized for errors and validity by committee members and other departmental faculty before being printed. Prior to mass mail-out, the consultant questionnaire was pre-tested on former progam participants, and others who were involved in the administration of the program.

The questionnaire entitled "Consulting Forester Assistance Program Survey State Forester Opinions" was used to assess past information on the CFA as well as opinions on the future need of the program. It consisted of the following two parts:

- state "service" foresters' relationship with consulting foresters in general (i.e., referrals);
- and state "service" foresters' relationship with consulting foresters in the CFA program (i.e., referrals, opinions of future need).

The first part of the state "service" forester questionnaire was used to determine each state agencies' working relationship with

consulting foresters. Information was obtained on the amount of contact each respondent had with consultants when they practiced as a field "service" forester. Specific data were obtained on the limitations of technical service that each respondent could provide under state policy (see Appendix H) to NIPF owners, and the amount and type of service that was referred to consulting foresters.

The second part of the survey was used to assess the awareness level each respondent had about the CFA as well as the amount of contact each had with participants in the program. In addition, each was asked to respond to opinion questions on the future need and outlook of the program in their respective state.

Questionnaire two, entitled "Consulting Forester Assistance Program Survey Consulting Forester Opinions," was used to assess opinions about the program and to obtain information for a future TVA regional consultant directory. It consisted of the following four main parts:

- characteristics of the respondent's consulting firm;
- opinions of respondents' about the education and experience requirements needed by new "aspiring" consultants;
- opinions about the CFA program;
- 4. and respondents' views on "stated" premises about the CFA program.

The first part of the survey obtained information on the qualifications of the respondent or the firm (partnership, company)

for a directory such as the respondent's major clientele, size of firm, and services each offered.

The second part of the survey was used to obtain information on what qualifications each respondent felt were necessary for the aspiring consultant. This information might then be used by TVA and ACF in assessing future candidates for the CFA program. Also obtained were opinions of respondents on how each felt the consulting forestry profession would grow in the next five years and what type of continuing education was needed by consultants to stay competitive.

The third part asked specific questions on the CFA program.

Like the state "service" forester questionnaire, it asked each respondent about the awareness level each had about the program and their opinions on the future need of the program. Also, all respondents were asked if they would have applied to be a participant in the program if it had been available when they entered the consulting field. One question, considered to be especially important, asked if the respondent felt that established consultants had a professional obligation to help aspiring foresters enter the consulting profession even if they later became competitors.

The last section was used to help assess the additional knowledge and/or opinions that each had about the CFA program. It asked the respondents to read a series of "stated" premises about the program and to respond whether or not they agreed with each premise. This was put in the end of the questionnaire to obtain any additional opinions each respondent had about the CFA program after working through the questionnaire.

D. Response Rates

Of the original 214 questionnaires mailed, 14 were either returned due to inadequate mailing addresses or an inability to be forwarded by the postal service. This brought the adjusted mailing to 200, of which 150 were returned, yielding a 75 percent response rate. Unusable (19) questionnaires due to death, retirement, or consultants who had vacated the profession brought the adjusted response rate to 72.4 percent. Table 1 represents the response rate by ACF vs. non-ACF response rate, and Table 2 represents the response rate by state.

E. Data Analysis

The data from the returned questionnaires were coded for use on an IBM PC computer using the Statistical Analysis System (SAS) PC software. Standard frequencies were computed for most variables and the Student-Newman-Keuls (SNK) test was used to detect any differences in means between ACF and non-ACF member responses.

Table 1. Response rate and adjustments by Association of Consulting Foresters (ACF) and non-member consulting foresters from the mailed Consulting Forester Survey 1987.

Membership	Original Mailed (No.)	Unusable Returns (No.)	Usable Returns (No.)	Response Percent (%)
ACF members	101	7	80	85.1
Non-ACF members	113	26	51	58.6
Total	214	33	131	72.4

Table 2. Response rate from the mailed Consulting Forester Survey 1987 (by state).

Membership	Original Mailed (No.)	Unusable Returns (No.)	Usable Returns (No.)	Response Percent (%)
Tennessee	28	6	19	86.4
Kentucky	13	2	9	81.8
Virginia	23	2	16	76.2
Alabama	29	0	21	72.4
Georgia	68	13	40	72.4
Mississippi	24	4	13	65.0
North Carolina	29	6	13	56.5
Total	214	. 33	131	72.4

CHAPTER IV

RESULTS AND DISCUSSION

A. State Forester Survey

This part of the study was used to assess state "service" foresters' opinions about the CFA program. The questionnaire asked for information about each state's working relationship with consultants, and specific questions on the CFA program.

Of the seven respondents selected by the state forester to fill out the questionnaire, six were still in some type of service position where they worked with NIPF owners. Length of service (of the respondents) ranged from 9 to 20 years. The first major response question was on what involvement each had with consultants. The largest single response was that each supplied up-to-date lists of consultants to local NIPF owners. Another common response in this category was that some respondents indicated they cooperated with consultants on certain jobs. When asked what restrictions were applicable when their foresters provided service to NIPF owners, the following were the most common responses:

- (1) either allowable free service was limited to a range of 3 to 5 days per year depending on the state;
- (2) or that there was a limitation on the type of free service, which was not specified.

The next response question asked for the percentage breakdown of referral types given to consultants. Timber sale administration

and timber inventory were mentioned more often as referred types of services. Other important services were forest management planning and services rendered under the Forest Incentive Program (FIP). When asked for the number of estimated referrals each made in a calendar year, only five of the seven responded. The numbers reported were 6, 46, 83, 546, and 561, respectfully.

Program awareness level (as defined by levels on the question-naire) about the CFA program was estimated by each state forester. Four of the respondents had a high awareness about the program, one had a medium awareness, one had a low awareness, and one had no awareness, but had interest in obtaining³ additional information about the program.

The respondents were then asked to fill out the same percentage of service types referred, but to consultants in the program.

The top three responses were timber sale administration, timber inventory, and tree planting under the FIP program. When asked if they thought the program should be expanded in the future, four said no, two said yes, and one could not comment because of lack of information about the program.

The respondents were then asked to select a response(s) on their reasons why or why not the CFA program should be expanded. The two respondents in favor of expansion felt that new geographic areas remained untapped. One felt the future economic outlook was good and the other felt an expansion in the private sector was needed but not just in timber brokerage.

³This was from a state that never had a participant.

The four negative respondents had a consensus that program expansion was not needed or warranted due to poor timber markets and the large excess of consultants already in the business. Some respondents noted that there were retiring foresters (e.g., Forest Service) who would fill this need. Others noted the heavy competition of the landowner assistance programs of the forest industry to the establishment of new consultants.

Finally, the respondents were asked to indicate, on a map of the TVA 201 power supply region, areas they felt a new participant in the program could be placed. The respondent from Alabama indicated that there was a need for a consultant in Etowah County (Gadsden area), and the respondent from Tennessee indicated that a need existed in Lewis and Cumberland counties. It should be noted that a participant had already been placed in Cumberland county but had failed to become established.

B. Profile of Consulting Foresters

Population information was computed using the SAS frequency command for both ACF and non-ACF members. The breakdown for question two of the questionnaire revealed that over 50 percent were self-employed, while just over 4 percent were employees of a consulting firm (Table 3).

Respondents were primarily found to have at least five years' experience with a few having one to three years. None of the consultants had less than one year of experience as a consultant (Table 4).

Table 3. Organization and employment status of consultants in 1987 by membership in the Association of Consulting Foresters (ACF) and non-ACF consulting foresters.

Organizational Structure	ACF (No.)	Non-ACF (No.)	Total (%)
Self-Employed	39	28	55.83
Employed by Firm	3	2	4.17
Partner in Firm	9	2	9.17
Head of Firm	<u>28</u>	9	30.83
Total	79	41	100.00

Table 4. Years experience as a consulting forester, as reported by members of the Association of Consulting Foresters (ACF) and non-ACF consulting foresters.

Length of Tenure	ACF	Non-ACF (No.)	Total (%)
Less than 1 year	0	0	0
At least 1, but less than 3 years At least 3, but less	5	2	5.79
than 5 years At least 5, but less	7	3	8.26
than 10 years	30	16	38.02
10 years or more	37	16	47.93
Total	79	37	100.00

These results show that the consulting field in the Tennessee Valley Region may not be experiencing the national growth rate reported by Field (1986) if state consultant, ACF, and SAF directories were up to date.

Frequencies were also computed by professional registrations held by the respondents (Table 5). Many ACF members were found to be licensed as real estate appraisers and brokers. This may relate to ACF currently doing a feasibility study to offer a course on appraisal techniques (Reinold, 1988).

C. Consulting Forester Survey Results

The first information obtained from section three of the consultant questionnaire was about their awareness of the CFA program. This was the basis for the entire study since it had been some time since the last participant had gone through the program and since the program had been somewhat sporadic over its 18-year period.

Awareness level was based on rankings ranging from one to four, with one being "high" awareness and four being "not" aware of the program. Each level was based on statements following the choice (i.e., high, medium, low, not aware) to help the respondents weight their own awareness about the program.

Statistically, no significant differences were found between the ACF and non-ACF members. However, over 75 percent of all respondents had little or no awareness about the program. Mean rank scores reveal similar findings (Table 6).

Table 5. Professional "registration" of consulting foresters by membership in the Association of Consulting Foresters (ACF) and non-ACF members.

Type of Registration	ACF (No.)	Non-ACF (No.)
Professional Forester or Registered Forester ^a	73	31
Real Estate Broker	19	3
Registered Land Surveyor	10	6
Real Estate Appraiser	11	4
Chemical Applicator	2	1
Professional Engineer	2	0
Insurance Agent	1	0
Pilot	1	0
Certified Silviculturalist	0	1
Professional Arborist	0	1

^aMany states in the Tennessee Valley do not require licensing and registration of foresters.

Table 6. Awareness level (self rated) about the CFA Program by members of the Association of Consulting Foresters (ACF) and non-ACF consultants.

Ranking Score	Awareness Level	ACF (No.)	Non-ACF (No.)	Tota (%)
1	High	7	2	7.3
2	Medium	13	6	15.3
3	Low	35	22	46.0
4	Not Aware	19	20	31.4
Total		74	50	100.0
Mean Rankings ^a		2.89	3.20	

aMeans were tested by the Student-Newman-Keuls (SNK) test and were not significantly different.

Next respondents were asked to give their opinion on the anticipated need of the program (Table 7) based on their perception of the program. Again need was based on rankings of 1 to 4, with 1 being strongly needed and 4 being not needed.

No significant differences were found between the two groups. Over three-fourths (78.3 percent) of all respondents felt that it was not needed or needed only on a limited basis, with 48.2 percent of all respondents feeling that the program was no longer needed. Mean rank scores indicated 3.27 for ACF members and 3.07 for non-ACF members, showing that non-ACF members were only slightly more favorable for continuing the program.

The poor enthusiasm for the program is probably based on personal bias towards the program and perceived rather than actual economic factors. Written comments (Appendix I) indicated an overall misconception about the way the program has evolved and is now administered. Most consultants feel the program is still a direct subsidy program which probably has led to this bias. One respondent referred to the program as the "foresters' welfare program."

Also, many written comments indicated consultants generally do not like government involvement in private forestry practices. Finally, the program may be viewed as an unfair competition factor by established consultants who may have been affected financially with recent downturns in the economy and a general feeling that there is an oversupply of consultants. One respondent stated that ACF and SAF definitions of consultants are too narrow, and that there

Table 7. Expected need of the CFA Program by the members of Association of Consulting Foresters (ACF) and non-ACF members.

Ranking Score	Program Need	ACF (No.)	Non-ACF (No.)	Total
1	Strong	1	4	6.0
2	Moderate	11	2	15.7
3	Limited	16	9	30.1
4	Not Needed	28	12	48.2
Total		56	27	100.0
Mean Rankings ^a		3.27	3.07	

 $^{^{\}rm a}{\rm Means}$ were tested with the Student-Newman-Keuls (SNK) and were not significantly different.

are many consultants who appear out of "nowhere" to bid on jobs against him.

It was thought that respondents with a higher awareness level would generally be more supportive for the program's continuation, which proved to be a correct assumption. All respondents (ACF and non-ACF) who answered with at least a low awareness level supported the program on at least a limited basis (Table 8).

Respondents not supporting continuing the program and having a low awareness level accounted for only 6 percent of the total.

Actually, their response was "insignificant" in a non-statistical sense because they were instructed to omit the question on need if they had no knowledge about the program. However, several ignored these instructions and voted to discontinue the program anyway.

Respondents indicating any level of need at all were referred to the next question requesting reason(s) they felt the program was still needed. Reasons for belief in continuation were given on the questionnaire for respondents to select from (Table 9).

Over 36 percent of all respondents felt that new geographical areas (in the valley) still remain untapped, which is one reason the program was initiated. This finding agrees with Alabama and Tennessee's support of program expansion due to the opinion that areas were in need of consulting services in their respective states.

The next highest response (28.2 percent) was the high start-up costs being a deterrent to entry into the field. One of the main reasons for the program was that financial assistance would ease

Table 8. Perceived need of the CFA program based on Awareness Level of the Association of Consulting Foresters (ACF) and non-ACF Members.

Awareness Level	Respondents (No.)	Percent (%)	Mean Rank ^a of Need
High Medium Low Not Aware	7 18 53 <u>5</u>	8.4 21.7 63.9 6.0	3.00 3.33 3.11 [<u>4.00</u>]
Total	83	100.0	

^aMean rank based on scores where one equals strong need, two equals moderate need, three equals limited need, and four equals not needed.

Table 9. Reasons selected by the Association of Consulting Foresters (ACF) and non-ACF members for the continuing need for the CFA Program.

	ACF	Non-ACF	Tot	al
Reasons Selected	(No.)	(No.)	(No.)	(%)
New geographical areas remain untapped	20	6	26	36.6
Decreased public sector funding	13	5	18	25.3
Predicted increase in economic growth	4	3	7	9.9
Supply of graduates cannot meet demands	0	0	0	0
High start-up costs	<u>13</u>		20	28.2
Total	50	21	71	100.0

the burden of low clientele and the normal high capital outlay experienced during the first few lean years of practice.

The third highest response was that decreased public funding at the federal and state level will likely increase the need for services from the private sector. Many Tennessee Valley region states have been hit with budget cuts and hiring freezes which support this assumption. No consultants foresaw a shortage of professional foresters from new graduates of forestry schools.

Respondents who were negative towards continuing the program were referred to a question where their opinions could be categorized. Here they were instructed to check all choices that related to their opinion for not continuing the program (Table 10).

Responses from this question seemed to be more controlled by a feeling of competition rather than perceived economic considerations. The highest response (26.8 percent) among respondents was the beleif that heavy competition from state "service" foresters limits the need for the program. This opinion shows respondents felt that any new participant in the program would add to the competition they already face from state "service" foresters. These opinions were supported by written comments (Appendix I) from the questionnaire, often showing poor feelings by consultants towards state "service" foresters giving forest management advice.

Another high response was an expected over-abundance of consultants (21.4 percent) by the respondents. This was expected since many foresters will enter consulting during poor economic times due

Table 10. Opinions of the Association of Consulting Foresters (ACF) and non-ACF members against the continual need for the CFA Program.

Reasons Selected	ACF (No.)	Non-ACF (No.)	Total (%)
Poor timber markets	2	2	7.1
Over-abundance of consultants	8	4	21.4
Poor outlook by NIPF owners on forestry	2	3	8.9
Large number of retiring foresters	6	3	16.1
Competition from torest industry	9	2	19.6
Competition from state foresters	9	_6	26.8
Total	36	20	99.9

to scarcity of public and industrial jobs. Finally, many respondents felt the program would be affected by landowner assistance programs sponsored by the forest industry (19.6 percent).

Respondents were given the opportunity to respond positively or negatively about the program and suggest their own modifications for it (Table 11).

Over 47 percent of ACF members supported phasing out the program, in contrast to almost 35 percent of non-ACF members. The average of all respondents was 43.4 percent.

Over 19 percent of the respondents felt that a viable alternative would be to provide low-interest loans to participants in the program. This is consistent with the way that most respondents felt about direct subsidy since a loan would be a debt that would have to be repaid.

Another high response was for an internship program sponsored by an established firm (15.8 percent). This alternative was considered during initial planning of the program, but was foregone to expand private forestry services through new businesses.

Thirteen percent of non-ACF members felt that an alternative would be to have ACF provide continuing education courses for new consultants. This is a policy question that ACF might consider to aid consultants and perhaps eventually increase its membership.

Questions (and results) in this section addressed the area of expanding consulting services. The first major response question

Table 11. The Association of Consulting Foresters (ACF) and non-ACF members opinions on selected modifications for the CFA Program.

	P	CF	No	n-ACF	T	otal
Program Modifications	(No.)	(%)	(No.)	(%)	(No.)	(%)
Phase program out	25	(47.1)	8	(34.8)	33	(43.4)
Provide low-interest loans to participants	9	(17.0)	6	(26.1)	15	(19.7)
Internship program with established firm	10	(8.9)	2	(8.7)	12	(15.8)
ACF mentor program	5	(9.4)	2	(8.7)	7	(9.2)
Return to subsidy (minimum income)	1	(1.9)	1	(4.3)	2	(2.6)
Provide ACF training courses	2	(3.8)	3	(13.0)	5	(6.6)
Support non-traditional consultants only	_1	(1.9)	_1	(4.3)	_2	(2.6)
Total	53	100.0	23	100.0	76	100.0

dealt with factors relating to the business failure of new consultants. Mean rankings were based on a scale of one to five, with one being not important and five being extremely important. This was the only question in the series that showed any significant difference between the two groups. Of the nine responses provided, only two were found significantly different with ACF members having higher mean ranks.

Table 12 shows that the category with the highest mean ranking was poor business skills with ACF members averaging 4.39 and non-ACF being 3.80. The two groups were found to be significantly different using the SNK test.

Non-ACF members felt that lack of professional skills had the highest impact on whether a consultant makes it or not (3.96). No significant difference was found between the two groups. Another high ranking category (by both groups) was poor location. Here, the two groups were found to be significantly different with ACF members having a stronger opinion (3.65) than non-ACF members (3.11).

Responses having low rank (by both groups) were poor financial backing, lack of referrals, and poor advertising. Based on respondents it appears that the program may not be addressing the needs of new consulting foresters. Although poor location was ranked high by the respondents and was also related to the purpose for the CFA program, other high ranking responses (i.e., good business and professional skills) indicate help is needed for continuing education or careful screening of new participants based on these traits by cooperators (i.e., TVA, ACF, Forest Service) if the program continues.

Opinions of the Association of Consulting Foresters (ACF) and non-ACF members on factors relating to the business failure of new consultants. Table 12.

Categories Not Slightly Moderately Very Extremely Poor business skills (ACF) 1.0 <th></th> <th></th> <th></th> <th>Cum</th> <th>Cumulative Frequency^a</th> <th>ıcya</th> <th></th> <th></th> <th></th>				Cum	Cumulative Frequency ^a	ıcya			
(ACF) 1.0 1.0 .98 .89 .51 (non-ACF) 1.0 1.0 .96 .85 .26 (non-ACF) 1.0 .96 .95 .75 .48 (non-ACF) 1.0 .96 .95 .75 .48 (non-ACF) 1.0 .96 .92 .68 .40 (non-ACF) 1.0 .92 .85 .55 .21 (non-ACF) 1.0 .92 .80 .49 .12 (non-ACF) 1.0 .96 .71 .38 .19 (non-ACF) 1.0 .96 .74 .43 .15 (non-ACF) 1.0 .96 .76 .53 .16 (non-ACF) 1.0 .96 .76 .53 .16 (non-ACF) 1.0 .91 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 (non-ACF) 1.0 .91 .76 .40 .16 (ACF) 1.0 .94 .76 <td< th=""><th>Categories</th><th></th><th>Not</th><th>Slightly Important</th><th>Moderately Important</th><th>Very Important</th><th>Extremely Important</th><th>Mean</th><th>Rank</th></td<>	Categories		Not	Slightly Important	Moderately Important	Very Important	Extremely Important	Mean	Rank
(non-ACF) 1.0 1.0 .90 .64 .26 (non-ACF) 1.0 1.0 .96 .95 .75 .48 (non-ACF) 1.0 1.0 .96 .95 .75 .48 (non-ACF) 1.0 .96 .95 .75 .48 .40 (non-ACF) 1.0 .98 .85 .55 .21 (non-ACF) 1.0 .92 .80 .49 .12 (non-ACF) 1.0 .93 .80 .49 .12 (non-ACF) 1.0 .96 .76 .49 .15 (non-ACF) 1.0 .96 .76 .43 .15 (non-ACF) 1.0 .96 .76 .53 .17 (non-ACF) 1.0 .91 .76 .53 .17 (non-ACF) 1.0 .91 .76 .53 .16 (non-ACF) 1.0 .91 .76 .70 .32 .10 (non-ACF) 1.0 .91 .76 .70 .26 .94	Poor business skills	(ACF)	1.0	1.0	86	68	5	4.39	Ab
(ACF) 1.0 1.0 .95 .75 .48 (non-ACF) 1.0 .96 .92 .68 .40 (ACF) 1.0 .98 .85 .55 .21 (non-ACF) 1.0 .92 .87 .55 .23 (non-ACF) 1.0 .92 .80 .49 .12 (non-ACF) 1.0 .93 .80 .49 .18 (non-ACF) 1.0 .96 .71 .38 .19 (non-ACF) 1.0 .96 .74 .43 .15 (non-ACF) 1.0 .96 .76 .53 .16 (ACF) 1.0 .91 .76 .40 .16 (ACF) 1.0 .91 .76 .40 .16 (ACF) 1.0 .91 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .94 .76 .40		(non-ACF)	1.0	1.0	06.	. 64	. 26	3.80	· @
(non-ACF) 1.0 .96 .92 .68 .40 (ACF) 1.0 .98 .85 .55 .21 (non-ACF) 1.0 .85 .67 .36 .12 (ACF) 1.0 .92 .81 .55 .23 (ACF) 1.0 .92 .80 .49 .12 (ACF) 1.0 .96 .71 .38 .19 (ACF) 1.0 .96 .74 .43 .15 (ACF) 1.0 .96 .76 .53 .16 (ACF) 1.0 .91 .76 .43 .16 (ACF) 1.0 .94 .76 .43 .16 (ACF) 1.0 .91 .76 .43 .16 (ACF) 1.0 .94 .76 .43 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 <t< td=""><td>Lack of professional</td><td>(ACF)</td><td>1.0</td><td>1.0</td><td>.95</td><td>.75</td><td>.48</td><td>4.22</td><td>A</td></t<>	Lack of professional	(ACF)	1.0	1.0	.95	.75	.48	4.22	A
(ACF) 1.0 .98 .85 .55 .21 (non-ACF) 1.0 .85 .67 .36 .12 (ACF) 1.0 .92 .80 .49 .12 (non-ACF) 1.0 .93 .80 .49 .28 (non-ACF) 1.0 .96 .71 .38 .19 (non-ACF) 1.0 .96 .74 .43 .15 (non-ACF) 1.0 .96 .76 .53 .17 (non-ACF) 1.0 .96 .76 .53 .16 (ACF) 1.0 .91 .70 .32 .16 (ACF) 1.0 .91 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .96 .47 .21 .09 (ACF) 1.0 .96 .47 .21 .04<	skills	(non-ACF)	1.0	96	.92	. 68	.40	3.96	W.
icing (ACF) 1.0 .85 .67 .36 .12 (ACF) 1.0 1.0 .92 .81 .55 .23 .23 (ACF) 1.0 .92 .80 .49 .12 (ACF) 1.0 .92 .80 .49 .12 .12 (ACF) 1.0 .93 .80 .49 .28 .19 (ACF) 1.0 .96 .71 .38 .19 .15 and a constant (ACF) 1.0 .96 .74 .43 .15 and a constant (ACF) 1.0 .96 .74 .43 .17 and a constant (ACF) 1.0 .96 .76 .53 .17 and a constant (ACF) 1.0 .91 .70 .32 .16 and a constant (ACF) 1.0 .91 .70 .32 .16 and a constant (ACF) 1.0 .91 .70 .32 .16 and a constant (ACF) 1.0 .91 .70 .32 .16 and a constant (ACF) 1.0 .94 .76 .20 .30 and a constant (ACF) 1.0 .94 .76 .20 .20 .04	Poor location	(ACF)	1.0	86.	.85	. 55	.21	3.65	Ab
(ACF) 1.0 1.0 .81 .55 .23 (non-ACF) 1.0 .92 .80 .49 .12 (ACF) 1.0 .93 .80 .49 .12 (non-ACF) 1.0 .96 .71 .38 .19 ss (ACF) 1.0 .96 .74 .43 .15 port (ACF) 1.0 .96 .76 .53 .17 (non-ACF) 1.0 .91 .76 .53 .16 (ACF) 1.0 .91 .61 .37 .14 (non-ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 (non-ACF) 1.0 .96 .51 .20 .04		(non-ACF)	1.0	.85	.67	.36	.12	3.11	8
(non-ACF) 1.0 .92 .80 .49 .12 (ACF) 1.0 .93 .80 .49 .28 (non-ACF) 1.0 .96 .71 .38 .19 ss (ACF) 1.0 .96 .74 .43 .15 port (ACF) 1.0 .96 .74 .43 .12 port (ACF) 1.0 .96 .76 .53 .16 (ACF) 1.0 .91 .70 .32 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .96 .51 .26 .04	Inadequate pricing	(ACF)	1.0	1.0	.81	. 55	.23	3.60	A
(ACF) 1.0 .93 .80 .49 .28 (non-ACF) 1.0 .96 .71 .38 .19 (ACF) 1.0 1.0 .80 .43 .15 (non-ACF) 1.0 .96 .74 .43 .12 (ACF) 1.0 .96 .76 .53 .17 (non-ACF) 1.0 .91 .70 .32 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .96 .51 .26 .04		(non-ACF)	1.0	.92	.80	. 49	.12	3.31	A
(non-ACF) 1.0 .96 .71 .38 .19 (ACF) 1.0 1.0 .80 .43 .15 (non-ACF) 1.0 .96 .74 .43 .12 (ACF) 1.0 .96 .76 .53 .17 (non-ACF) 1.0 .91 .70 .32 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 (ACF) 1.0 .94 .76 .40 .16 (non-ACF) 1.0 .96 .51 .26 .04	Poor financial help	(ACF)	1.0	.93	.80	.49	. 28	3.52	A
(ACF) 1.0 1.0 .80 .43 (non-ACF) 1.0 .96 .74 .43 (ACF) 1.0 .96 .76 .53 (non-ACF) 1.0 .91 .70 .32 (non-ACF) 1.0 .91 .61 .37 (non-ACF) 1.0 .94 .76 .40 (non-ACF) 1.0 .96 .51 .26		(non-ACF)	1.0	96.	.71	.38	. 19	3.24	×
(non-ACF) 1.0 .96 .74 .43 (ACF) 1.0 .96 .76 .53 (non-ACF) 1.0 .91 .70 .32 (ACF) 1.0 .91 .61 .37 (non-ACF) 1.0 .94 .76 .40 (ACF) 1.0 .82 .47 .21 (non-ACF) 1.0 .96 .51 .26	Downturn in business	(ACF)	1.0	1.0	.80	.43	.15	3.40	¥
(ACF) 1.0 .96 .76 .53 (non-ACF) 1.0 .91 .70 .32 (ACF) 1.0 .91 .61 .37 (non-ACF) 1.0 .94 .76 .40 (ACF) 1.0 .82 .47 .21 (non-ACF) 1.0 .96 .51 .26	cycle	(non-ACF)	1.0	96.	.74	.43	.12	3.24	V
(non-ACF) 1.0 .91 .70 .32 (ACF) 1.0 .91 .61 .37 (non-ACF) 1.0 .94 .76 .40 (ACF) 1.0 .82 .47 .21 (non-ACF) 1.0 .96 .51 .26	Lack of spouse support	(ACF)	1.0	96.	92.	.53	.17	3.40	A
; (ACF) 1.0 .91 .61 .37 (non-ACF) 1.0 .94 .76 .40 (ACF) 1.0 .82 .47 .21 (non-ACF) 1.0 .96 .51 .26		(non-ACF)	1.0	.91	.70	.32	.16	3.02	A
(non-ACF) 1.0 .94 .76 .40 (ACF) 1.0 .82 .47 .21 (non-ACF) 1.0 .96 .51 .26	Lack of referrals	(ACF)	1.0	.91	.61	.37	.14	3.03	A
(ACF) 1.0 .82 .47 .21 (non-ACF) 1.0 .96 .51 .26		(non-ACF)	1.0	.94	.76	.40	.16	3.29	A
(non-ACF) 1.0 .96 .51 .26	Poor advertising	(ACF)	1.0	.82	.47	.21	60.	2.56	A
		(non-ACF)	1.0	96.	.51	.26	.04	2.71	A

aCategories were rated on a scale of 1 to 5 with 1 being not important and 5 being extremely important.

bMean rankings were computed using the Student-Newman-Keuls (SNK) test for significant differences between means for each group and variable. Only the variables of poor business skills and poor location were found to be significantly different between the two groups at the alpha = .05 level.

A question addressing what the success rate of new consultants would be without an assistance program was included to compare to respondents' views on the CFA program need. Rankings were based on a scale of one to four, with a one being less than a 25 percent chance of success and a four being a 75 percent chance or greater for success.

Table 13 shows that over 60 percent of all respondents felt that a new consultant, without an assistance program, had only a 50 percent (or less) chance of becoming established. These findings, together with results from Tables 7 (page 42) and 11, show that there is a consensus among respondents that some form of assistance may be needed to help new consultants, although not necessarily by the CFA program in its current form.

Field (1986) reported that between 1976 and 1983, the consulting field grew from 1,236 to 1,919 individuals. This figure yields a growth rate of 55.2 percent for the entire 7-year period and an approximate average growth rate of 7.9 percent per year. Question 7 from section 2 was to determine how respondents felt the increase in consultants in the TVA region would change over a five-year period given that no assistance would be available.

Results were based on rankings of one to five, with one being a decline in numbers and five being greater than a 7.5 percent increase (Table 14). No significant differences were found between the two groups, with both groups feeling that only a 0 to 5 percent increase would occur.

Table 13. Opinions of the Association of Consulting Foresters (ACF) and non-ACF members on the predicted success rate of new consultants without an assistance program.

Predicted Success Rate	ACF (No.)	Non-ACF (No.)	Total
Less than 25%	13	11	22.4
25 to 50%	23	18	38.3
50 to 74%	15	2	15.9
75% or greater	15	10	23.4
	66	41	100.0
	2.48	2.27	
	Success Rate Less than 25% 25 to 50% 50 to 74%	Success Rate (No.) Less than 25% 13 25 to 50% 23 50 to 74% 15 75% or greater 15 66 66	Success Rate (No.) (No.) Less than 25% 13 11 25 to 50% 23 18 50 to 74% 15 2 75% or greater 15 10 66 41

 $^{^{}m a}$ No significant differences were found between ACF and non-ACF members using the Student-Newman-Keuls (SNK) test.

Table 14. Opinions of Association of Consulting Foresters (ACF) and non-ACF members on the predicted growth rate of new consultants (per year basis) without an assistance program.

Ranking Score	Predicted Increase	ACF (No.)	Non-ACF (No.)	Total (%)
1	Decline in number	7	4	10.4
2	No growth	16	6	20.7
3	0 to 5%	27	20	44.3
4	5 to 7.5%	6	9	14.2
5	7.5% or greater	_6	_5	10.4
[ota]		62	44	100.0
Mean Rankings ^a		3.19	2.89	

aNo significant differences were found between ACF and non-ACF members using the Student-Newman-Keuls (SNK) test.

The results were found to have a normal distribution throughout the five choices. A high percentage (31.1) felt there would be a decline to no growth in the numbers of new consultants. Also few respondents (10.4) felt that the growth of new consultants would be more than 7.5 percent per year. This result shows that the number of new consultants in the Tennessee Valley may not be increasing at the national growth rate reported by Field (1980) if consultants are correct in their estimates.

Respondents were asked how they felt about helping establish new consultants even though they may eventually become competitors. This question was asked for several reasons. First, many other professionals (i.e., dentists, lawyers, doctors) help young professionals to become established even though they may become competitors. Also, we wanted to see if responses show a definite bias on the CFA program, based on positive responses (yes) to the question. No significant differences were found between ACF and non-ACF members.

Over 53 percent of all respondents felt (Table 15) there is a professional obligation to help establish new consultants. This result further showed that practicing consultants are probably in favor of some type of assistance to new consultants, but they do not like what they understand to be the CFA program. Either modifications are needed to gain their acceptance or misunderstandings about the program should be cleared up by the cooperators through program promotion.

Table 15. Opinions of members of the Association of Consulting Foresters (ACF) and non-ACF members on whether a professional obligation to help new consultants exists (even though they may become competitors).

	Response Response	ACF	Non-ACF (No.)	Total (%)
	Yes	30	15	53.6
	No	<u>27</u>	12	46.4
Total		57	27	100.0

CHAPTER V

STUDY IMPLICATIONS

The major problems facing the CFA from a management standpoint are mainly associated with promotion of the program. Additionally, the TVA region may not be experiencing the national growth rate for consultants; this may be associated with need for services. Finally, respondents' views showed support and need for assistance, although they were not in favor of continuing the program.

The literature review revealed that the program has been promoted in various forestry publications, but all respondents, including ACF members, had a poor awareness about the program. Also, there appeared to be a problem with the name of the program. Much of the written information about the program failed to call it by the same name. The author feels that the use of the suggested name used in this study, the Consulting Forester Assistance (CFA) Program, could help eliminate confusion about the program.

Evidence for this is that the Tennessee Division of Forestry (TDF) currently has a program in effect (The Cooperating Consultant Forester Program) that could be confused with the CFA program, based on one reference that called the CFA program the Cooperative Consultant Assistance Program. The TDF program is in no way related to the program under study and is to encourage cooperation between consultants and state personnel for better management of NIPF lands.

Survey findings indicated an overall poor awareness about the CFA program by all respondents. This is probably due to the program having been somewhat sporadic throughout its 18-year history and/or that most consultants may be too busy to keep up with all current events in the field. It was surprising to see that over 25 percent of all responding ACF members indicated no awareness about the program. This may be due in part to many of the ACF members being from the state of Georgia which did not cooperate with the program.

Another important finding, both from general questions on the questionnaire and written responses, was the overall misconception on the way the program was administered. Many of the respondents were still under the assumption that the program was still a direct government subsidy program. The program was administered that way only for the first two charter participants (1970-72). Since that time, it has continually been administered as a contractual agreement program with cooperators. The longevity of the program is apparently due to the ability of the cooperators to adjust and modify the program as necessary to make it work. However, it is still judged by how it was started.

These misconceptions, along with bad opinions of respondents towards government involvement in private enterprise, have probably led to poor overall confidence in the program. If the program is to be continued, it should have better promotion by cooperators to gain the support of practicing consultants. This effort may not

guarantee additional support for the program, but respondents did indicate they were in favor of some type of assistance to new consultants, which may provide additional input for changes in the program or designing new programs.

The second factor concerning continuation of the program is whether the demand for additional consulting services exists in the TVA region. These survey results show that the consulting field in the TVA region may not be experiencing a positive growth rate according to the opinion of responding consultants. Results from the responding population show that none of the responding consultants have less than one year of experience and less than 6 percent have only one to three years' experience. These facts show that there may be a need for the program to aid in the establishment of new consultants, or, at the other extreme, there may be a restrictive market for services and thus no need for expansion.

Another fact indicating a negative growth rate of consultants in the Tennessee Valley region was the large number of unopened returned questionnaires (mailing address expired). Also, many of the returned questionnaires were unanswered because respondents were no longer practicing consultants, had retired, or were deceased. These findings also indicate that state consulting forester lists are not kept up to date, given the fact that the mailing list was compiled from the most current lists available.

Overall, respondents were in favor of the need for some type of assistance for new consultants, although not through the CFA program.

Over 43 percent of all respondents felt that the program should be phased out (based on the way they perceived it to be administered). However, findings did indicate that they were in favor of some form of assistance based on their opinions for modifications for the program. Specifically, over 19 percent of all respondents were in favor of long term loans through the program, while over 15 percent were in favor of the program being modified to an internship program with an established firm.

Other evidence supporting assistance to new consultants was the high percentage (60.7) of respondents that felt a consultant had only a 50 percent (or less) chance of making it without some form of assistance. Also, most consultants did not see their profession growing at the reported current national growth rate of 7.9 percent per year (Field, 1986).

Finally, over 53 percent of all respondents feel a professional obligation to help establish new consultants, even though they may become competitors. Based on this and other mentioned facts it appears that consultants would be in favor of some type of assistance program for new consultants depending on what type of program was used and whether cooperators of the program involved practicing consultants with the development of it.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The Consulting Forester Assistance (CFA) Program was established in 1970 by the Tennessee Valley Authority (TVA) and the Association of Consulting Foresters (ACF). At the time of the program's inception, TVA was concerned because the 18.3 million acres of private commercial forest land was producing at only half its potential. TVA felt that the location of new private forestry consultants in the Tennessee Valley would increase the level of management and productivity on NIPF lands.

Funding for the project would come from TVA and administration and selection of participants by ACF. Later, other cooperators such as the U.S. Forest Service and several valley states' forestry organizations helped with funding and referrals to participants. Financial help to participants was initially in the form of direct subsidy to the participants but later was changed to contractual agreements with cooperators.

Eleven men have participated in the program⁴; five are now permanently established. No ending date has been set, but the past success rate could by itself alleviate the need for expansion without an expanding forest economy. Part of the success of the program

⁴⁰ne participant is deceased.

has been the strong support of cooperators in providing financial assistance and service referrals to participants.

An in-depth evaluation of the program was made in 1987 to help address the question of whether or not to expand the program.

Objectives of this evaluation were:

- to compile a case history of the program through historical data;
- to determine opinions and attitudes of cooperators and practicing consultants about the program;
- and, to define the future direction of the program based on research findings from the study.

The study population consisted of a state "service" forester from each valley state and all practicing consultants residing in or near the TVA 201 power supply region. Also, all ACF members residing in any part of a TVA state were also included to insure a balanced or 1:1 ratio between ACF and non-ACF members.

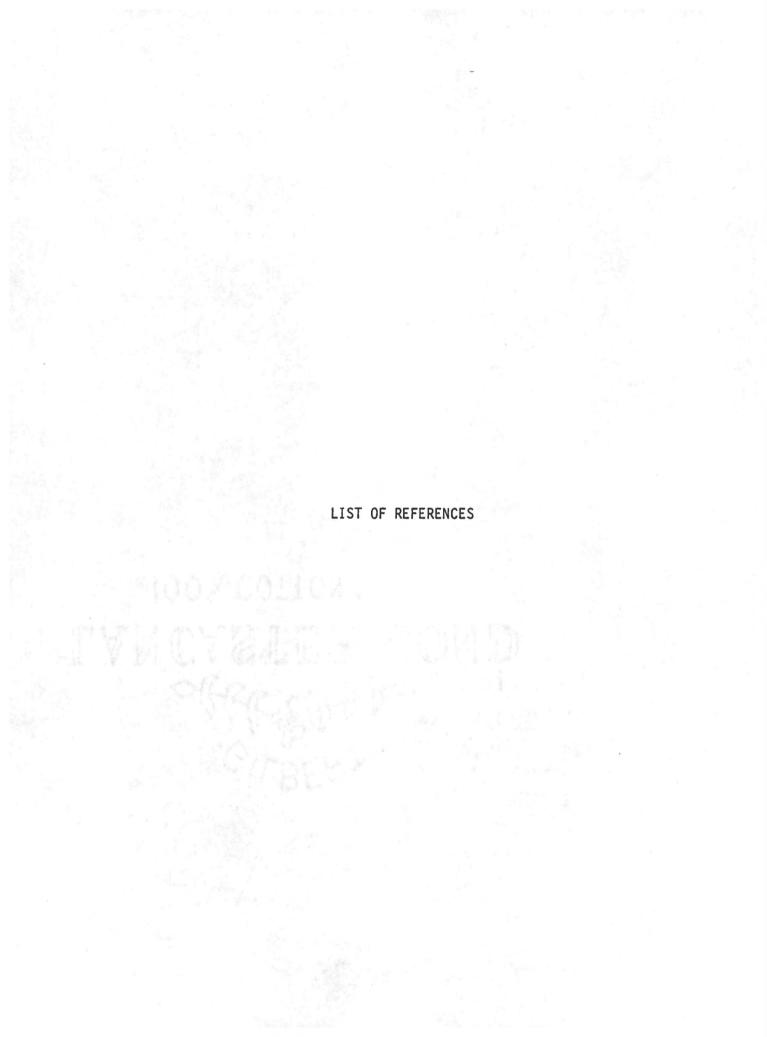
Despite ACF being a major cooperator of the program, only a few significant differences were found between ACF and non-ACF member respondents.

Response rates ranged from a low of 56 percent among North Carolina consultants to a high of over 86 percent among Tennessee consultants. ACF members had over an 85 percent response rate as compared to non-ACF members who responded at just over 56 percent. The overall adjusted response rate was 72.4 percent, which is considered to have a minimal amount of non-response bias (Goudy, 1978).

Based on the findings from the research the following conclusions can be drawn:

- overall, state forestry agencies are not in favor of expansion of the current program (Alabama and Tennessee are exceptions and recommend expansion was possible in specific areas in their state);
- 2. ACF and non-ACF members did not significantly differ about their opinions on the CFA program and the need for assistance to new consultants:
- 3. current support (1987) for continuation of the CFA program (in its current form) is poor, and better promotion needed to help boost awareness levels and clear up misconceptions about the program;
- 4. and, there is a general overall consensus among respondents that a professional obligation exists to aid new consultants; it is also evident that some form of assistance or support is needed to help new consultants in the Tennessee Valley given the low numbers added to state lists.

These findings indicate that there is a need for and interest in some type of assistance program for new consultants in the TVA region. However, poor support exists for the CFA program in its current form. Through better promotion and involvement of practicing consultants and states, such an endeavor could continue to be effective.



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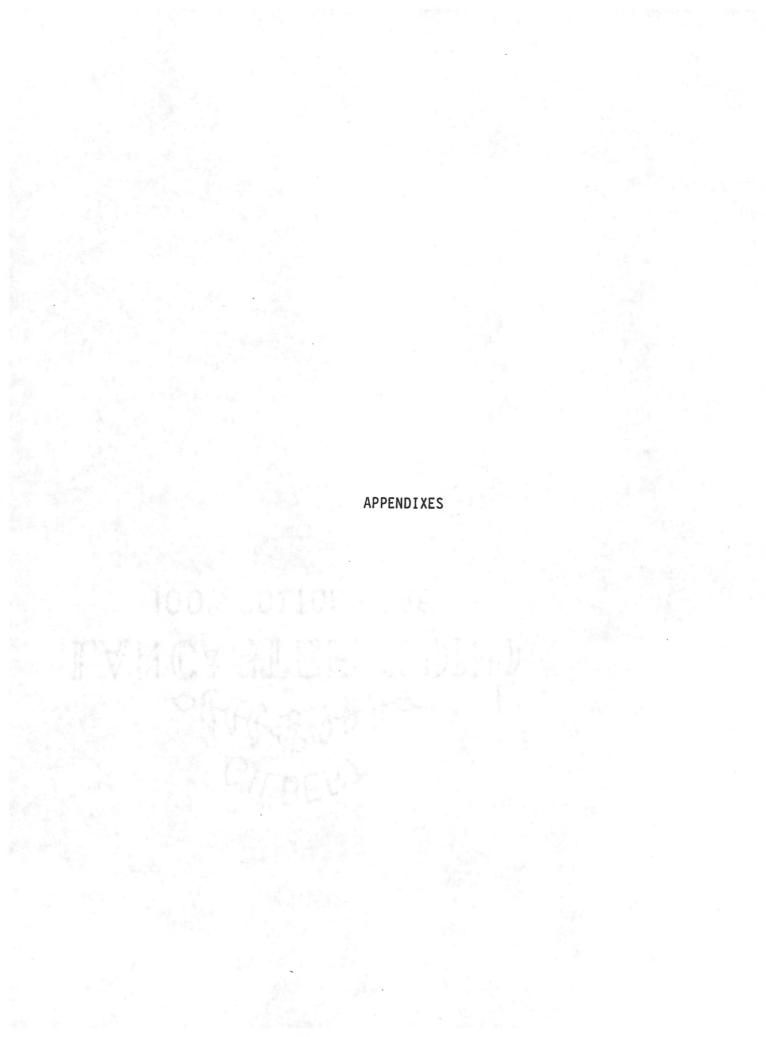
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APPENDIX A

STATE FORESTER SURVEY

Consulting Forester Assistance Program Survey

State Forester Opinions 1987



DEPARTMENT OF FORESTRY, WILDLIFE AND FISHERIES
UNIVERSITY OF TENNESSEE
KNOXVILLE, TENNESSEE 37901

The following questions pertain to your involvement and opinion(s)
concerning consulting foresters, and the Association of
Consulting Foresters / Tennessee Valley Authority (ACF/TVA) "Consulting Forester Assistance Program".
rocester abbibliste Program.
We would like to have your name so that we can contact you in the
future regarding your responses.
NAME_
TITLE
AGENCY_
ADDRESS
PHONE ()
PRACE ()
1. Are you currently (1987) a state forester (i.e.
service, county, urban) ? (Check one)
YES -> GO TO QUESTION # 3
NO
2. What years did you practice as a state forester (i.e. service,
county, urban) ?
19 to 19
3. What is your involvement with consulting foresters?
(Check all that apply)
FURNISH REFERRALS TO CONSULTANTS ON A REGULAR BASIS
OCCASIONALLY WORK WITH CONSULTANTS
SUPPLY LISTS OF CONSULTANTS TO LANDOWNERS
CIHER
(please specify)
DO NOT COOPERATE WITH CONSULTANTS IN MY AREA
GO TO PAGE 3, QUESTION # 9

4.	As a state service forester are (were) you limited by the amount of forest assistance and advice you can give to any one landowner? (Check one)
	NO> GO TO QUESTION # 6
5.	Which of the following restriction(s) apply (applied) to you when giving forest management advice to non-industrial private forest (NIPF) landowners? (Check all that apply)
	LIMITED BY THE AMOUNT OF TIME AVAILABLE LIMITED TO AMOUNT OF CONTACT DAYS/YEAR
	NUMBER OF CONTACT DAYS
	LIMITED BY LANDOWNER'S FOREST TRACT SIZE
	SIZE OF TRACT (ACRES)
	LIMITED BY TYPES OF SERVICES RENDERED LIMITED BY THE AMOUNT OF "FREE" SERVICE PROVIDED OTHER
	(please specify)
6.	Which of following restriction(s) apply (applied) for "free" service available to private landowner(s) in your state ? (Check all that apply)
	TYPE OF TECHNICAL SERVICE RENDERED AMOUNT OF SERVICE RENDERED TRACT SIZE OTHER
	(please specify)
	NOT LIMITED IN AMOUNT OF FREE SERVICE PROVIDED

7.	to consultants? Please indicate the PERCENT of each service referred to consultants (your best estimate is
	satisfactory).
	* TIMBER INVENIORY TIMBER SALE ADMINISTRATION
	TREE PLANTING WITH PUBLIC ASSISTANCE PROGRAMS TREE PLANTING WITHOUT PUBLIC ASSISTANCE PROGRAMS TIMBER STAND IMPROVEMENT WITH PUBLIC ASSISTANCE PROGRAMS TIMBER STAND IMPROVEMENT WITHOUT PUBLIC ASSISTANCE PROGRAMS
	* FOREST MANAGEMENT PLANNING * WILDLIFE MANAGEMENT
	RECREATION PLANNING SITE PREPARATION CONTROLLED BURNING
	TREE FARM CERTIFICATION
	* ENVIRONMENTAL IMPACT STATEMENTS * BOUNDARY LOCATION AND MAPPING * OTHER
	(Please Specify)
T	OTAL: 100%
8.	How many consulting forester referrals did you make in 1986 ?
	NO. OF REFERRALS
9.	What is your awareness level of the ACF / TVA Consulting Forester Assistance Program ? (Check one)
	HIGH:
	 involved in the planning and design of the program worked with consultants participating in the program involved in monitoring the success of the program
	MEDIUM:
	 read literature pertaining to the program talked with foresters that had a good knowledge of the program attended conference where program was discussed
	LON:
	- aware of participants of the program operating in area - talked with foresters that had a limited knowledge of
	the programheard about the program at staff meetings
	NOT AWARE OF PROGRAM

10.	Which of the following type(s) of referrals have you made to a consultant in the Consulting Forester Assistance Program ? Please indicate the PERCENT of each service referred to consultants.
	TIMEER INVENTORY TIMEER SALE ADMINISTRATION TREE PLANTING WITH PUBLIC ASSISTANCE PROGRAMS TREE PLANTING WITHOUT FUBLIC ASSISTANCE PROGRAMS TIMEER STAND IMPROVEMENT WITH PUBLIC ASSISTANCE PROGRAMS TIMEER STAND IMPROVEMENT WITHOUT PUBLIC ASSISTANCE PROGRAMS FOREST MANAGEMENT PLANNING WILDLIFE MANAGEMENT RECREATION PLANNING SITE PREPARATION CONTROLLED BURNING TREE FARM CERTIFICATION ENVIRONMENTAL IMPACT STATEMENTS BOUNDARY LOCATION AND MAPPING OTHER
2	(Please Specify)
11.	How often, on average, did you make referrals to consultants in the program ? (check one)
	MORE THAN ONCE A WEEK ONCE A WEEK TWICE A MONTH ONCE A MONTH
	TWICE A YEAR ONCE A YEAR OTHER
	(Please Specify)
12.	Do you feel the current forest economy will support additional participants in the Consulting Forester Assistance Program ? (Check one) YES NO

13. Why do you feel this program is still needed? (Check all that apply and double check the most important)

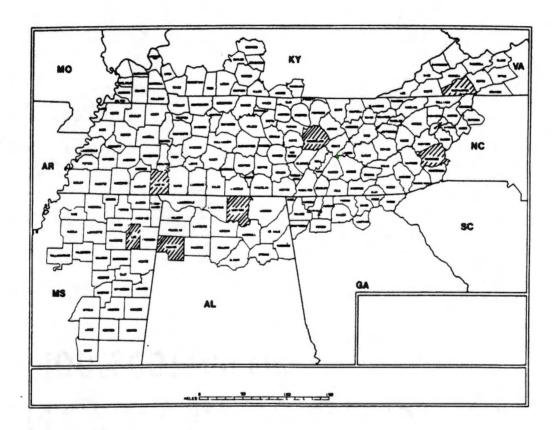
TO

14. Which of the following are the main reasons you feel that the forest economy will not support additional participants entering into the Consulting Forester Assistance Program ? (Check all that apply and double check the most important)

POOR TIMBER AND FOREST PRODUCTS MARKETS
EXCESS SUPPLY OF CONSULTANTS ALREADY IN AREA
POOR CUTLOOK BY NIPF LANDOWNERS ON FINANCIAL RETURN
OF PRACTICING FORESTRY
ABUNDANT SUPPLY OF RETIRED FORESTERS ENTERING
CONSULTANT FIELD
COMPETITION FROM THE FOREST INDUSTRY'S LAND OWNER
ASSISTANCE PROGRAM
PROGRAMS ADMINISTERED BY STATE AGENCIES WILL EXPAND
OTHER
(Please specify)
The state of the s
GO TO PAGE 7, QUESTION #16

The following is a map of the Tennessee Valley Authority power region where a new consultant could be placed under the Consulting Forester Assistance Program. (Past participants of the program are shown on the map with cross etchings in the county that they were established.

15. What areas, if any, on the map below do you feel will support a new participant in the program ? Please indicate by placing an "X" in those areas. You are not restricted by your work area.



16. Do you have any additional comments on the Consulting Forester Assistance Program and/or consulting forestry? Thank you for your help and cooperation

APPENDIX B

CONSULTING FORESTER SURVEY

Consulting Forester Assistance Program Survey

Opinions of Consulting Foresters

1987



DEPARTMENT OF FORESTRY, WILDLIFE AND FISHERIES
THE UNIVERSITY OF TENNESSEE
KNOXVILLE, TENNESSEE 37901

				Code #:
l-drd:	*****	******	*****	**********
Sec	tion 1.	of your coursed to de	nsulting firm	s pertain to the characteristics This information will be ctory of consultants that Valley Authority region.
***	*****	******	*****	**********
1.		(or your en	mployer) offe	er forestry consulting services
	-	YES	NO >	(Stop Return questionnaire in self-addressed envelope)
2.		SELF-EMPLO EMPLOYED E PARINER IN	. (Check one OYED, SOLE PRO BY A CONSULTI	PRIETER NG FIRM
3.	How los	ng have you	been a consu	litant ? (Check one only).
	=	AT LEAST 3	BUT LESS THE BUT LESS THE BUT LESS THE	IAN 5 YEARS
4.			ollowing prof	fessional societies do you

AMERICAN INSTITUTE OF REAL ESTATE APPRAISERS

NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS

(please specify)

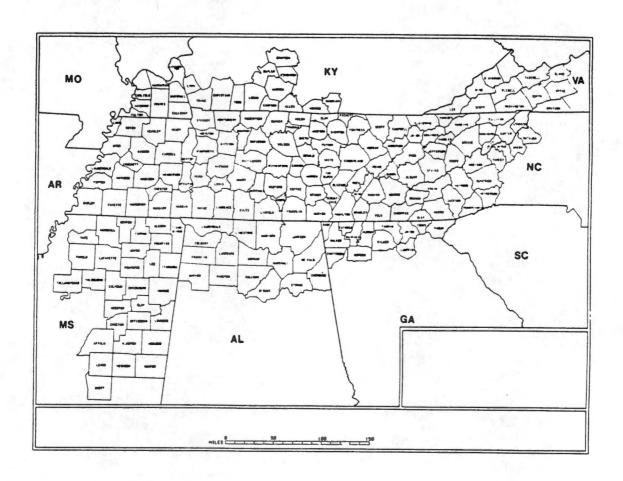
SOCIETY OF AMERICAN FORESTERS
ASSOCIATION OF CONSULTING FORESTERS

OTHER

AMERICAN SOCIETY OF CIVIL ENGINEERS

registration or	following do you license ? (Check	k all th	at apply	')
LAND SU PROFESS	IONAL FORESTER RVEYOR IONAL ENGINEER TATE APPRAISER			
	(please sp	ecify)		_
what degree(s)	do you have ?			
TYPE	YEAR	SCHOO	L	MAJOR
irm in each o	the number of f f the following			
firm in each of rears indicated PROFESSION	f the following	catago	ries for	r each o
PROFESSION REGISTERED PROFESSION OTHER PROF	of the following AL FORESTERS LAND SURVEYORS AL ENGINEERS ESSIONALS life biologist,	catago	ries for	r each o
PROFESSION REGISTERED PROFESSION OTHER PROF (i.e. wild ecologist,	of the following AL FORESTERS LAND SURVEYORS AL ENGINEERS ESSIONALS life biologist,	catago	ries for	r each o
PROFESSION PROFESSION PROFESSION OTHER PROF (i.e. wild ecologist,	AL FORESTERS LAND SURVEYORS AL ENGINEERS ESSIONALS life biologist, etc.) e specify) HNICIANS	catago	ries for	r each o
PROFESSION REGISTERED PROFESSION OTHER PROF (i.e. wild ecologist, (pleas FOREST TEC OFFICE PER - engine - comput	AL FORESTERS LAND SURVEYORS AL ENGINEERS ESSIONALS life biologist, etc.) e specify) HNICIANS	catago	ries for	r each o
PROFESSION REGISTERED PROFESSION OTHER PROF (i.e. wild ecologist, (pleas FOREST TEC OFFICE PER - engine - comput - other	AL FORESTERS I LAND SURVEYORS AL ENGINEERS ESSIONALS life biologist, etc.) e specify) HNICIANS SONNEL: ering draftsman	catago	ries for	r each o

8. The following is a map of the Tennessee Valley Authority service region. Please indicate the geographical areas which you have served in this region by placing an "X" in those areas (Please place a large "X" in the area(s) if they are larger than a one county area)



9.	What was the percentage distribution designated of your firms' total work client: private owners, industry, and	for each type of
	CONSULTING IN TENNISSEE ONLY	
	CONSULTING IN THE TENNESSEE VALLEY AUTHORITY (TVA) REGION ONLY, OUTSIDE OF TENNESSEE	
	CONSULTING IN THE SOUTHEASTERN UNITED STATES OUTSIDE OF THE TVA REGION	
	TOTAL = 100	100 % 100 %
10.	How many non-industrial private fores service in each of the following cate (Estimate the number for each categor	gories by year?
		1970 1978 1986
	1 - 24 acres 25 - 100 acres 101 - 250 acres 251 - 1000 acres 1000 - 10000 acres 10000 + acres	
11.	Considering all of the forest consult provided (in 1986), please indicate the services represented by each of the services.	e percent of total
	FOREST APPRAISAL FOREST IAND ACQUISITION TIMBER INVENTORY RESOURCE SUPPLY STUDIES TIMBER SALE ADMINISTRATION TIMBER LITIGATION TIMBER TAXATION FOREST PLANNING WILDLIFE PLANNING RECREATIONAL PLANNING CHRISTMAS TREE FARMING SURVEYING & MAPPING (ENGINEERING) SITE PREP (ALL TYPES) TREE PLANTING WITH F.I.P. TREE PLANTING W/O F.I.P. TIMBER STAND IMPROVE W/O F.I.P. OTHER (make sure total = 100 %)	

**	*************	***	***	***	***	*****	04
Se	ection 2. The following questions pertain to that you may feel a new consultan profile will assist us in evaluati rates of the Consulting Forester	t s ing	houl esta	d po	eses thae	s. This	
**	************	***	***	***	***	*****	
1.	What do you feel the success rate of new consultants would be without an assistance (Check one only)	ior e p	rogra	y am ?			
	IESS THAN 25 % 25 % TO 50 % 51 % TO 74 % 75 % OR GREATER						
2.	In your opinion, why do foresters enter the field? (Check all that all apply)	he (cons	ılti	ng		
	WANT TO OWN BUSINESS AND WORK FOR LIKE WORK AREA AND DO NOT WANT TO OTHER EMPLOYMENT OPPORTUNITIES RES ENTER CONSULTING UPON RETURING OTHER:	RE	LOCA	¥2			
	(please specify)			-			
3.	How important would you rate each of the in the business failure of a new consultacircle the number which you feel represent of each factor)	ant	? (1	Plea	se	~~	tant
		DE SE	ALL	nely is	rately	Infortant Infortant Setronally	TOOL
	LACK OF PUBLIC REFERRALS	1	2	3	4	5	
	INADEQUATE ADVERTISING	1	2	3	4	5	
	POOR LOCATION	1	2	3	4	5	
	DOWN-TURN IN BUSINESS CYCLE	1	2	3	4	5	
	LACK OF PROFESSIONAL SKILLS	1	2	3	4	5	
	POOR BUSINESS MANAGEMENT SKILLS	1	2	3	4	5	
	INADEQUATE PRICING AND BILLING	1	2	3	4	5	
	LACK OF SPOUSE & OTHER FAMILY SUPPORT	1	2	3	4	5	
	POOR FINANCIAL BACKING	1	2	3	4	5	
	OTHER:	1	2	3	4	5	

4.	Do you agree that new consultants need to specialize to be successful?
	YES ORNO
5.	To what extent does formal education prepare a forestry graduate for a career as a forest consultant ? (Check one only)
	EXCELLENT PREPARATION GOOD PREPARATION FAIR PREPARATION POOR PREPARATION NO PREPARATION
6.	What three areas of coursework should be stressed in a forestry student's curriculum to best prepare them for a career as a consultant?
	1. 2. 3.
7.	If there were no assistance program for new consultants for the next five years, what would happen to the total number of full time consultants during that period?
	DECLINE IN THE NUMBER OF FULL-TIME CONSULTANTS NO GROWIH ZERO TO 5 % INCREASE PER YEAR 5 % TO 7 1/2 % INCREASE PER YEAR MORE THAN 7 1/2 % INCREASE PER YEAR

8. What types of continuing education subject matter should be offered to new consultants? (Please circle a number which you feel represents the importance of each subject matter)

				32.5	Tall and the same	E ANY
	Á	Toreshir	We'ly in	The state of the s	President Partient	A STATE OF THE STA
	No A	6	* * * * * * * * * * * * * * * * * * * *	76	4	
Forest Mensuration/Biometry	1	2	3	4	5	
Surveying and Mapping	1	2	3	4	5	
Silviculture	1	2	3	4	5	
Forest Entomology/Pathology	1	2	3	4	5	
Public Relations	1	2	3	4	5	
Writing/Speaking Skills	1	2	3	4	5	
Forest Taxation	1	2	3	4	5	
Forest Economics/Marketing	1	2	3	4	5	
Business Law	1	2	3	4	5	
Cost Accounting/Finance	1	2	3	4	5	
Real Estate Appraisal	1	2	3	4	5	
Entrepreneurial Decision-Making	1	2	3	4	5	
Computer Programming	1	2	3	4	5	
Computer Mapping	1	2	3	4	5	
Data Base Management Systems	1	2	3	4	5	
OTHER(S):	1	2	3	4	5	
(please specify)	1	2	3	4	5	

*****	************
Section 3.	Questions in this section pertain to the joint Termesse Valley Authority (TVA) - Association of Consulting Foresters (ACF) Consulting Forester Assistance Program which was established in 1970. State forestry agencies and the U.S. Forest Service - State & Private Forestry also were cooperators.
******	**************
	d you rate your awareness level of the Consulting Assistance Program initiated by ACF and TVA ? ne only)
	HIGH -involved in the planning and design of the program -worked with consultants participating in program -involved in monitering the success of the program
-	MEDIUM -read literature pertaining to the program -talked with foresters that had good knowledge of the program -attended conference where program was discussed
	LOW -aware of participants of the program operating in the area -talked with foresters that had limited knowledge of the program -heard about the program at staff meetings
7	NOT AWARE OF PROGRAM > (STOP-GO TO PAGE 11)
establis	opinion, is this program currently needed to h new consultants in the Tennessee Valley Region ? ne only)
	STRONGLY NEEDED MODERATELY NEEDED NEEDED ON A VERY LIMITED BASIS
1	NO LONGER NEEDED > (STOP-GO TO PAGE 9, QUESTION #4)

3.	Why do you feel this program is needed? (Check all that apply)
	(Check all that apply)
	GEOGRAPHICAL LOCATIONS STILL REMAIN UNTAPPED
	FOR CONSULTING SERVICES IN THE REGION
	DECREASED PUBLIC FUNDING WILL EXPAND THE NEED FOR
	CONSULTING SERVICES
	INCREASE IN CONSULITING SERVICES DUE TO EXPECTED ECONOMIC GROWIN IN THE REGION
	SUPPLY AND TRAINING OF FORESTRY GRADUATES CAN NOT
	MEET DEMAND FOR CONSULTING JOBS
	HIGH START-UP COSTS AND INSTITUTIONAL BARRIERS LIMIT
	(please specify)

	* STOP - GO TO QUESTION # 5 *

	Why do you feel the Consulting Forester Assistance Program
	is not needed ? (Check all that apply, double check most
	important reason)
	POOR TIMBER AND FOREST PRODUCTS MARKETS
	EXPECTED OVER ABUNDANCE OF CONSULTANTS
	POOR OUTLOOK BY NIPF LANDOWNERS ON FINANCIAL
	BENEFITS ON PRACTICING FOREST MANAGEMENT
	LARGE NUMBER OF RETIRING FORESTERS ENTERING FIELD
	COMPETITION FROM FOREST INDUSTRY'S LAND OWNER ASSISTANCE PROGRAMS
	COMPETITION FROM STATE SERVICE FORESTER VENDORING
	SERVICES
	OTHER(please specify)
	(prome specify
	How would you alter the Consulting Forester Assistance Program ? (Check one only)
	PHASE PROGRAM OUT
	PROVIDE LOW INTEREST LOANS TO NEW PARTICIPANIS INTERNSHIP PROGRAM WITH ESTABLISHED CONSULTING FIRMS
	"ACF" MENTOR WITH ESTABLISHED CONSULTANTS ACTING AS
	ADVISORS TO NEW PARTICIPANTS
	RETURN TO A GUARANTEED MINIMUM INCOME
	SPECIAL "ACF" APPROVED "COURSES" AT UNIVERSITIES FOR
	NEW PARTICIPANTS
	ONLY SUPPORT "NON-TRADITIONAL" SPECIALIZED
	CONSULITING SERVICES, i.e. COMPUTER PROGRAMMING,
	COMPUTER MAPPING, URBAN FORESTRY, ETC.
	(please specify)
	WOULD NOT CHANGE PROGRAM
	(STOD_CO TO DACE 10 OTTESTET

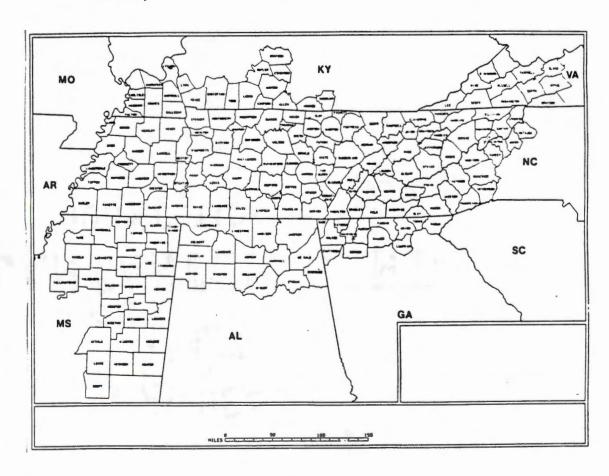
- 6. Given your response to the last question (#5), how would expect your choice to improve the program ?
- 7. If this program had been available when you went into consulting, would you have applied to be a participant?

___YES ___NO

8. Do you feel consultants have a professional obligation to assist in the establishment of new consulting foresters, even though they may become competitors?

YES NO

9. If you reside and mainly work in the TVA region which of the areas on the map below do you feel could support a new consultant? (Please indicate by placing an "X" in those areas.)



Section 4. TVA, ACF, State forestry agencies and the U.S. Forest
Service - State & Private Forestry were all program cooperators
in the Consulting Forester Assistance Program.
We feel the above organizations cooperated based on
specific premises about the Consulting Forester
Assistance Program. Please respond to each of the
following premises about these cooperators.

 The Association of Consulting Foresters cooperated in the program as an obligation to young professionals, but also viewed it as an alternative to expanded "state forestry" services. (Please circle your response)

I (AGREE / DISAGREE) WITH THIS PREMISE

2. The Tennessee Valley Authority originated and supported the program as being consistent with enhancing economic development in the Valley. An important factor leading to the development of the program was a 1968 survey which indicated that NIPF owners were willing to pay for consulting services. Past success of the program is indicated by a high benefit/cost ratio and a high establishment rate among participants.

I (AGREE / DISAGREE) WITH THIS PREMISE

3. The U.S. Forest Service - State and Private Forestry supported the program to enhance forestry technology transfer and to support other federal forestry programs such as the FIP program.

I (AGREE / DISAGREE) WITH THIS PREMISE

 Many states cooperated in the program as a means of implementing forestry services in areas that they felt lacked consulting forestry services.

I (AGREE / DISAGREE) WITH THIS PREMISE

Do you have any additional comments on the Cooperative Forester Assistance Program, consulting forestry, and/or this survey?

Please return the completed survey in the enclosed self address stamped envelope. No stamp is necessary the postage has alread	
been affixed. We thank you for your help and consideration.	-2

APPENDIX C

COVER LETTER TO STATE FORESTERS

THE UNIVERSITY OF TENNESSEE INSTITUTE OF AGRICULTURE



Department of Forestry, Wildlife and Fisheries P. O. Box 1071 Knoxville, TN 37901-1071 (615) 974-7126

March 30, 1987

Dear

Enclosed is a questionnaire concerning the ACT/TVA consulting forester assistant program. We were selected by the Association of Consulting Foresters to evaluate the 15 year old program. We are seeking opinions of state foresters and consulting foresters about the program. The results will be summarized in a Master's thesis at the University.

We are requesting that you select a forester in your agency who you believe to be most knowledgeable about the program and have them fill out and return the questionnaire. Virginia and some other states who have cooperated with the program, have written policy statements concerning state forestry personnel and consulting forester referrals. Please enclose a copy of such a statement with the questionnaire, if available and convenient.

All opinions will be kept confidential. Thank you for your cooperation. Sincerely,

G. R. Wells Associate Professor

Enclosure

GW/klb

Tennessee's Land Grant University: Research. Teaching, and Extension

APPENDIX D

COVER LETTER TO CONSULTANTS (1)

THE UNIVERSITY OF TENNESSEE INSTITUTE OF AGRICULTURE



Department of Forestry, Wildlife and Fisheries P. O. Box 1071 Knoxville, TN 37901-1071 615) 974-7126

October 12, 1987

Dear :

In 1970, the Tennessee Valley Authority (TVA) and the Association of Consulting Foresters (ACF) initiated a Consulting Forester Assistance Program (CFAP). This effort drew cooperative support from state agencies and in some instances The U.S. Forest Service, State and Private. We are studying the the CFAP program as an independent study. The results of our research will be used by Eevin P. Hoyt, a graduate student in our department, for his Master's degree thesis in forestry.

We are surveying a number of consulting foresters seeking their opinions about the program. The majority of all consultants being surveyed live in or at least work in part of the TVA region. The survey instrument enclosed also asks information about your individual firm or company. The purpose of this information is to publish a consulting forester directory for the TVA region. We ask that you please enclose a business card to provide a double check of services offered by your business.

You may be assured of complete confidentiality of your opinions. The questionnaire has a identifacation number on it for mailing response purposes.

We would be most happy to answer any questions you may have. Please write me or Tim Young, Research Associate, or call us at (615) 974-7126. Thank you for your assistance.

Sincerely,

G. R. Wells Associate Professor

GRW/kph

Enclosures

APPENDIX E

FIRST POST CARD REMINDER TO CONSULTANTS

Last week a questionnaire seeking information about your consulting firm and your opinion(s) of the ACF/TVA Consulting Forester Assistance Program was mailed to you. Your business was selected because of its proximity to the Tennessee Valley Region and your possible membership in the Association of Consulting Foresters.

If you have already completed and returned the questionnaire to us, please accept our sincere thanks. If not, please do so today. Because your firm is one of a small number being surveyed, it is extremely important that your business be included in this study and the directory of consulting services of the Tennessee Valley Region that is planned to be published.

If by some chance you did not receive our questionnaire, please call Tim Young collect at (615) 974-7126 and he will send you one today.

Sincerely,

Dr. G. Ray Wells

Associate Professor and Project Leader

APPENDIX F

COVER LETTER TO CONSULTANTS (2)

THE UNIVERSITY OF TENNESSEE INSTITUTE OF AGRICULTURE



Department of Forestry, Wildlife and Fisheries P. O. Box 1071 Knoxville, TN 37901-1071 (615) 974-7126

November 02, 1987

Dear Mr. ____:

I am writing to you about our study of Consulting Foresters. We would encourage you to complete our questionnaire concerning the Consulting Forester Assistance Program (CFAP). If you have already completed the initial packet, please disregard this letter.

The large number of questionnaires already returned to us is very encouraging. However, in order to finish the study we need your completed questionnaire. Our sample size is small, and we feel your opinions will add highly valuble information about the consulting field. We feel that with a high response rate we can better describe the consulting foresters role in the Tennessee Valley. This is the first questionnaire study, a 100 percent sample, of the Tennessee Valley consulting foresters according to listings in ACF and state directories. Therefore, the results are particularly important to forest landowners or clients in the region, as well as to state forestry organizations who refer many clients to consultants.

It is for these reasons that I am sending this additional questionnaire mailing packet to you. Your contribution to the success of this study will be greatly appreciated.

Sincerely,

G. R. Wells Associate Professor

GRW/kph

Enclosures

Tennessee's Land Grant University: Research, Teaching, and Extension

APPENDIX G

SECOND POST CARD REMINDER TO CONSULTANTS

It has been over four weeks since we sent you the Consulting Forester Assistance Program Questionnaire. Your input into the study is extremely important.

As of yet we have not received your questionnaire. As you know, we have contacted all of the firms in and around the Tennessee Valley Region that we know of but the number is small. This makes it extremely important that we get your views on consulting forestry and the ACF/TVA Consulting Forester Assistance Program.

If by some chance you did not receive our questionnaire, please call Tim Young collect at (615) 974-7126 and he will send you one today.

Sincerely,

Dr. G. Ray Wells

Associate Professor and Project Leader

APPENDIX H

STATE FORESTRY ORGANIZATION'S POLICIES RELATING TO REFERRALS TO CONSULTING FORESTERS

STATE POLICY GUIDELINES CONCERNING CONSULTANTS

The purpose of this section is to look at specific state guidelines of the seven Tennessee valley states concerning working relations with consultants. All of the seven state forestry organizations (Alabama Forestry Commission, Georgia Forestry Commission, Kentucky Division of Forestry, Mississippi Forestry Commission, North Carolina Division of Forest Resources, Tennessee Division of Forestry, Virginia Department of Forestry) were found to have some form of written policy concerning working relations with consultants. The policies ranged from very brief one-paragraph statements to in-depth agreements between consultants and the respective state forestry organization.

The Alabama Forestry Commission had a brief but concise definition for dealing with consultants and referrals and is as follows:

The use of consultants will be recommended and encouraged in all cases where it would be beneficial to the landowner. When an inspection indicates the property should be managed by a consultant, a minimum of three consultants, who are registered foresters, and qualified to do the work, will be recommended to the landowner. A copy of the referral will be sent to those consultant foresters. Each county will keep a list of qualified consultant foresters who operate in that county and who would like referrals (Hyman, 1987).

The Georgia Forestry Commission (Hooven, 1987) encourages the use of consultants but guards against blanket referrals. State personnel visit each site and determine if they can provide the NIPF

landowner with the required service within the five-day service stipulation as set by policy. Their guidelines go on to state that when referrals are made, they are only made to consultants who are registered as professional foresters in the state of Georgia.

State foresters are encouraged to provide inventory services to NIPF landowners if:

- the stand is understocked or poorly stocked and/or under site index 80;
- 2. the stand consists of worked-out naval stores;
- the stand has stagnated and no future growth potential exists;
- or if the overstory is stagnated and an understory of at least 400 seedlings/acre exists.

The guidelines go on to state that a "service" forester should never consider inventory services if:

- 1. there will be a direct conflict with consultants;
- information gained through an inventory cruise will be used for sale speculation;
- the area will not be reforested;
- or if the results are considered to be poor forestry practice.

Kentucky's guidelines (Perkins, 1987) are set forth to encourage the use of consultants under certain circumstances and in certain service areas. These guidelines are mainly tied to time constraints and in some cases involve legal considerations. The

basic requirements stated that all services will be referred to consultants when the tract in question is over 300 acres and is marked for sale. Also, the service forester is limited to providing each NIPF landowner with no more than 3 man-days of service each year.

Specific cases referred to consultants are any dealing with damage appraisals and/or timber trespass. Also, service foresters must refer all cases dealing with boundary location and/or marking to the proper consultant.

Mississippi's guidelines (Ayers, 1987) were set up to provide a better working relation between the Commission of Forestry and private consultants working in the state. These guidelines have helped to provide better services to the NIPF landowners throughout the state. They go on to make the broad statement that the state will cooperate with consulting forestry organizations and will work to provide increased referrals to consultants in the state of Mississippi.

North Carolina has an in-depth set of guidelines concerning consultants. Layman (1987) provided a document on the cooperative agreement by state forestry personnel and consultants who practice forestry in North Carolina. Section one of the document described the basic guidelines as follows:

The Department of Natural Resources and Community Development and the qualified consulting foresters in North Carolina desire: that the practice of forestry be encouraged; that the damage to forest sites and surface waters caused by improper management practices be avoided; that the quantity and quality

of desired timber species be increased; and that the forest dependent industries of the state be stabilized insofar as possible through the assurance of continuing a source of raw materials.

In general, to accomplish these stated objectives the North Carolina Department of Forest Resources agreed to maintain a list of consultants who entered into the above agreement. In addition, service referrals would be made to NIPF landowners and ultimately a closer working relationship would be developed between the department and consultants.

Tennessee also has a published Cooperative Consultant Forester Program in effect. Their document (Anonymous, 1986) is a direct agreement between the Division of rorestry and the state chapter of the Association of Consulting Foresters. The main purpose of this agreement is to promote sound forest management practice on Tennessee lands through the use of consulting forestry services on NIPF lands. The guidelines also state that the division's role in this agreement was to protect forest lands and promote the use of sound forest management. However, the division felt that the jobs of managing the NIPF lands and the writing of comprehensive management plans were more that of the private forest consultants of the state.

Virginia's guidelines (Hannah, 1987) stipulate that division personnel will refer all forestry work that has to do with the sale of forest products from timberland and any appraisals to forest consultants. It specifies that state personnel will not be involved in the opening of bids for timber sales or in awarding of sale contracts.

In the above events division personnel are to provide a list of local consultants to landowners so that the individual NIPF owners can decide on which to contact. However, division personnel may provide NIPF owners with sample sale contracts so they can get an idea of what one looks like. In addition, division foresters may "flag" prospective sale boundaries and/or buffer strips but not property lines. Also, the forester may visit an on-going logging operation but cannot offer any opinions or advice concerning the legality of the sale.

APPENDIX I

WRITTEN COMMENTS FROM THE CONSULTING FORESTER SURVEY

WRITTEN COMMENTS FROM QUESTIONNAIRE

1. Responses from Question #3, page 5.

(How important would you rate each of the following factors in the business failure of a new consultant? - written in responses - see questionnaire)

A. Non-ACF Responses

1.	Competition factor	Rating
	"Uneven competition from moonlighters"	. 5
	"Competition from state forestry agencies"	. 5
	"Little available work - state people do most".	. 5
	"Competition from state forestry division"	5+
2.	Work ethics	
	"Lack of commitment"	. 4
	"Willing to work extremely long days"	5
	"Not willing to work"	. 5
	"Must be willing to hit the woods and work"	5
	"Drive (ambition) - self starter"	. 5
	"Must have real strong interest and desire to guide landowner in good management"	. 5
	"Experience in dealing with industry"	4
3.	Personal qualities	
	"Good communication skills"	4
	"Personality"	. 4
	"Client relationships or personality"	. 5
	"Public perceptions"	. 5

B. ACF Responses

1.	Competition factor	Rating
	"Inadequate number of jobs to be done - no market for your skills"	. 5
	"Competition from government and industry"	. 5
	"Competition from state and government agencies"	. 5
	"Public's lack of knowledge of what distinguishes a professional consultant from others in the wood industry"	. 5
	"Free advice to NIPF owners by state foresters"	. 5
	"Consulting field is overcrowded"	. 5
2.	Work ethics	
	"Difficulty of management operation"	. 4
	"Ten years min. actual experience"	. 5
	"Lack of initiative"	. 5
	"Desire to work"	. 5
	"Need time to build public confidence - proven track record"	. 5
	"Motivation"	. 5
	"Good reputation"	. 5
	"Poor quality of work"	. 5
	"Poor ethics"	. 5
	"Concern for client's success"	. 5
	"Desire to succeed"	. 5
3.	Personal qualities	
	"Honesty and integrity"	. 5

			Rating		
		"Personal characteristics (self starter)"	5		
		"Lack of desire"	5		
2.	Responses from question #3, page 9.				
	(Why do you feel this program is needed ? - responses under "other")				
	Α.	Non-ACF Responses			
		"I am not sure it is needed"			
		"Large percentage of landowners not doing anything to manage their forest land or harvesting them"			
		"It is needed"			
	В.	ACF Responses			
		"If this supply area is needed to future wood volumes to established mills then the services are needed to assure a continuing timber supply"			
		"Competition from state agencies"			
		"Takes 3 to 5 years to build business"			
3.	Responses from question #4, page 9.				
	(Why do you feel the CFA is not needed ? - responses listed under "other")				
	A. Non-ACF Responses				

1. Subsidizing viewed as negative

"Subsidizing a 'professional' service detracts from those who choose not to be subsidized - if state forestry agencies would remove themselves from forestry consulting then more foresters would find opportunities to employ their skills in private enterprise - State forestry policies in Tennessee and Kentucky have stifled and continue to stifle opportunities for forestry consulting"

"If consulting is economically viable, it does not need to be subsidized by government"

"Consultants should assume responsibility for operating a business without government assistance"

"If a consultant cannot make it without assistance, most will fail when assistance expires"

"If the work is there a good man will surface"

"A good consulting forester will make it on his own"

"Can borrow money to start on own"

2. Supply should be regulated

"There is an adequate number of consultants operating in my area"

"Normal economic forces will supply demand for consultants"

B. ACF Responses

Subsidizing viewed as negative

"Free enterprise system will prevail"

"Business should be justified on stand alone basis"

"All assistance programs are negative"

"Demonstration program - it has proven its objective and purpose"

"Unfair competition"

"Competing unfairly with existing/established firms"

"Competing with existing consultants"

"Foresters should be able to make it without government assistance"

"Forest industry should drop assistance programs and support established consulting foresters in their supply area"

2. Supply should be regulated

"Demand should regulate supply"

"There will be enough (not over-supply) of consultants as markets improve"

3. Un-categorized -

"Because the costs and benefits as well as the pros and cons of the program have not been fully evaluated, so we don't know. We are all going on our individual opinions"

"A forester should become a consultant only because he wants to do nothing else"

4. Responses from question #5, page 9.

(How would you change the program ? - responses listed under "other")

A. Non-ACF Responses

"Make sources of information available"

"Don't know enough to answer"

"Help with markets and exports"

B. ACF Responses

"Have designation from ACF - this would be given after experience, courses, or passing tests or demonstration"

5. Responses to question #6, page 10

(Given your response to the last question "#5," how would you expect your choice to improve the program ?)

- A. Non-ACF Responses
 - Those favoring "phasing out" program

"The program is no longer needed - based on my experience ACF members will act as mentors without organized program" "I would hope that professional foresters within the region publicly admit which is true among private consultants - eliminate state forestry consulting and private forestry will flourish"

"Fill the gaps as some of the areas open up"

2. Those favoring low-interest loans

"Provide an incentive for the consultant to work hard for his client"

3. Those favoring an internship program

"Provide optimum training experiences to prospective consultants, and the opportunity to change their mind for other work without great loss of capital"

"On the ground experience with growing consulting firm would be valuable training for new consultant"

"Consultants need experience in all phases of forestry prior to engaging in consulting"

"New consultants will gain much needed experience with quality supervision"

"Those that survive on their own have what it takes - doubtful if any will survive without other sidelines (i.e., real estate)"

4. Those favoring an ACF mentor

"It would provide the new consultant the opportunity to draw on established foresters' experience - a new consultant should receive assistance, not a handout"

"Give person the ability to locate information and data"

5. Those favoring minimum income

"It will improve the quality of individuals entering the program but will ease the financial burden during the infant years"

"Start-up financing is needed until the consultant can become established"

6. Those favoring ACF courses

"New use of computers require special skills"

"It would give consultants a chance to improve themselves without interfering in the market like guaranteed minimum income does"

"Give someone a fish and you will feed him for a day - teach him to fish and he can feed himself - more foresters would become consultants if they knew how to be a consultant"

"Orientation and update essential"

"Special courses would provide latitude to select the fields of study where information is needed also individual could select areas needed to improve"

B. ACF Responses

1. Those favoring "phasing out" program

"Less government participation"

"It would put all consultants on even footing"

"Program not needed if there is a need for the consultant"

"Improve quality of consulting foresters that enter business"

"Let private enterprise prevail - qualified person will succeed on his own"

2. Those favoring low interest loans

"I am not in favor of give-away programs - a low interest loan would help new consultant until he builds up his clientele"

"Add financial stability - lessen risk factor"

"Buys time for consultant and provides financial safety until business foundation is developed"

"More consultants could be assisted at a lower cost"

"Get people really interested but are willing to pay price"

3. Those favoring internship

"Recipient would be better qualified"

"It would by-pass a lot of early mistakes in start-up of business - teach them how to sell themselves"

"Give new consultants background and experience"

"Better prepare a person for dealing with problems and opportunities of consulting field"

"Better trained foresters"

"Increase experience of consultant"

4. Those favoring an ACF mentor

"Provide new consultant with basic knowledge to guide him/her through pitfalls they may face - guide them in building new and repeat clients"

"No guarantees and some good advice will provide better consultant"

"Practicing consultants could give valuable advice and dispel misconceptions of the consulting profession"

"More day to day working knowledge of what a consultant does"

5. Those favoring minimum income

"Enable new consultants to survive in areas not yet receptive to professional assistance in forestry activities"

6. Those favoring ACF courses

"It would help prepare foresters specifically for consulting"

6. Responses to question #8, page 10

(Do you feel consultants have a professional obligation to assist in the establishment of new consultants, even though they may become competitors?

A. Non-ACF

1. Those answering "yes"

"Only in areas with few consultants"

"To help them "after" they are established"

2. Those answering "no"

"Have offered advice whenever asked - believe public agencies have an obligation to provide training opportunities"

B. ACF

1. Those answering "yes"

"Depends on services and quality of work"

"And they do"

"Conditional"

"I believe in offering help to new consultants but not starting business"

ATIV

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During his undergraduate career he worked as a summer employee for the U.S. Forest Service in Montana and the Florida Division of Forestry. Upon graduation he accepted a Forester-Ranger trainee position with the Florida Division of Forestry in Ocala, Florida. He later worked as a Surveyor in Florida and Tennessee.

In April of 1986 he entered graduate school at The University of Tennessee, Knoxville, to pursue a Master's degree in Forestry on a part-time basis. In February of 1987 he accepted a research assistantship with the Department of Forestry, Wildlife and Fisheries to work on this project. He was graduated with the M.S. in Forestry, specialization in Forest Management, in June 1988.

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