

## **What Consulting Foresters in Texas Are Telling Us about Student Needs**

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### Abstract:

In an attempt to begin to understand some of the changing needs of the professional forester, this presentation provides information about a study that looked at the private consultant and the current needs of education to best prepare students to be successful in this specialization. Consultants in Texas were surveyed to determine what they are doing in the field, how they assessed their preparedness for those requirements, and what students need to be learning now to be prepared as top notch professionals and leaders.

### Keywords:

Education, consulting foresters, assessment

What consulting foresters in Texas are telling us about student needs:

One of the essential concepts taught in all forestry programs is the philosophy of “adaptive management.” Foresters have always been trained to try new techniques; to be innovative in developing and implementing new equipment and methods. See what works and what doesn’t and make adjustments. Change is therefore something we have always dealt with in every aspect of forestry. So what is the current state of professional forestry education in the United States? In a quest to answer that question we evaluated the current factors and trends influencing both education in general and specifically forestry education, then began gathering input from practicing consulting foresters in Texas.

#### Influencing Factors:

Our first step of evaluating the factors/trends that are creating opportunities for programs to evaluate the appropriateness of their curricula exposed answers both simple and complicated. First and foremost to keep in mind is that professional forestry programs are still accredited by the Society of American Foresters (SAF). However, the way forestry education components are measured in that accreditation process has changed. SAF no longer requires a designated number of credits in particular subjects, as was the case when many programs received their initial or last re-accreditation. Currently, requirements ask programs to demonstrate competency in an ever-growing list of subject areas. This allows programs to meet those competencies through the composite picture of a student’s education, rather than on a class by class basis. The list of subjects is ever expanding in a direct response to the perception of a changing profession. The definition of what constitutes a forester has been broadened to include many non-traditional areas of forestry, such as urban forestry and human dimensions. As we expand the definition of forestry, careful consideration of topic areas is paramount in the decisions to decide what aspects of traditional subjects can be reduced.

Strongly tied to the above concern is pressure from external sources, one of the greatest being state legislatures who are receiving pressure from parents to get students graduated in fewer

semesters. Nationwide, the average student takes 10 semesters to receive their undergraduate degree. This is expensive for parents and for state legislatures. In Texas, our legislature responded to this concern by passing a law (effective in the Fall of 2008) requiring all degree programs to reduce the number of credit hours to 120 semester credit hours unless the program presented major justification for staying above the maximum. The legislature also mandated that no reductions take place in the general education component of a degree program. This same trend toward decreasing the total credits required for a degree is occurring across the country.

Hand-in-hand with the above two influences are advances in technology. As we develop new tools, we must add instruction in the use of these new tools into the curricula. A perfect example is the rapidly expanding field of spatial science (GIS, GPS, remote sensing, etc). On one hand, to maintain accreditation, programs are being asked to expand the available subjects; but on the other hand, we must work with the forces telling us to reduce the credit hours.

#### ACF Survey of Status of Past, Present, and Future Education and Student Job Performance:

As we work to understand these factors and trends, it is very important to obtain input from practicing foresters on the current status and needs of forestry education. As a first step, we conducted an opinion survey of members of the Texas Chapter of ACF. Plans are underway to expand this survey to a nationwide poll of ACF members. Twenty five of the 32 Texas Chapter members responded to our survey. The average number of years since they earned the bachelor degree was 23 years; it is thus understandable that they are concerned with the quality of suitable replacements for themselves as retirement nears. Most (74%) of the respondents to our survey felt that today's graduates were as well prepared to enter the workforce as they were but since 54% of them indicated that they felt their undergraduate degree inadequately prepared them to be successful in the consulting field, then something is obviously missing. Many stated they had insufficient training in communication skills and also insufficient economic analysis/business skills. Most indicated that they learned consulting "on-the-fly", meaning experience was the best teacher. One quarter of the respondents stated their field station/summer camp was crucial to their success.

Most of the respondents (87%) felt that today's students are very well trained in new technology, such as GIS, and thus are better prepared for jobs in that sector than they are in general forest consulting. Nearly 50% noted that today's students are more aware of the "new aspects of forestry," such as human dimensions and urban forestry. The biggest deficiencies noted were:

- 22% stated lack of sufficient economic analysis;
- 30% noted a lack of "field experience;"
- 48% stated a deficiency in communication skills; and
- 52% indicated students "had unrealistic expectations for their first position in terms of starting salary/benefits and the amount of time spent in the woods."

Concerning the future for the field of consulting foresters, over 80% of the consultants who responded thought that opportunities to expand their businesses were generally increasing. They indicated increased opportunities:

- As contractors with TIMOs or REITS on investor owned lands (63%);
- To work with investors and businesses on such issues as carbon credit trading and other environmental issues (52%);
- To work more with urban/urban interface zone forestry issues (42%); and
- To manage for other resource values, such as wildlife (21%).

Interestingly, only a few noted that they expected increases in working with small ownerships for traditional forest management goals. What this tells us is that the profession of a consulting forester is alive and well and expanding rapidly.

What these statements, as a whole, tell us is that practicing consultants are invaluable as a source to keep us updated on the needs of the field and as a resource to assist forestry programs by interacting with students and faculty. Their personal experiences would be invaluable lessons for today's students. One example of this interaction is that two years ago, the Texas ACF members volunteered to serve as instructors for a course in Forest Consulting (Fountain 2006 article in

The Consultant). It is now a required course for students in the forest management degree option at Stephen F. Austin State University and is available as an approved elective for other majors.

What then is the status of forestry education programs? We do believe that overall, the students graduating now are capable of meeting the needs of the profession. However, it is our belief that forestry programs are facing some very serious questions. Professional programs must continue to seek input and our stakeholders, including ACF members nationwide, must not be hesitant about providing it.