THE FUTURE OF FOREST ECONOMICS IN THE SOUTH

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This topic invites both speculation and thoughtfulness at an exciting time, a time when both forestry itself and forestry's role in the broader research and environmental issues of the day have their highest profile in at least twenty years. Even more fortunately, the public and our colleague scientists seem to acknowledge the large role that economics and other social and management forestry sciences can play as we address the great resource and environmental issues of the day. Altogether, this provides forest economics an easy opportunity to be dynamic and expansive. This opportunity, however, requires an important degree of thoughtfulness in order that we accurately describe the problems we claim to solve and the solutions we obtain, and in order that our students enter the world with the best preparation.

We are all interested in our lineage. Perhaps it can provide guidance as we approach our future. In the South, our lineage might be traced from Sam Guttenberg and Jim Yoho. I have long admired the extensive teaching and research contributions of Sam and Jim.

Sam (whom I never knew) was an empiricist who demanded the organization of production economics. His students addressed all the applied forestry problems of the region. Their analyses became well-known and their research experience with Sam served them well. It built a foundation for their future responsibilities as many of them rapidly advanced beyond the ranks of researchers themselves to become academic deans and senior public agency administrators.

Jim (whom I am pleased to consider a friend) demanded the disciplinary rigor of the economics department as he addressed the applied problems of the day. (He still does.) He and his students placed particular emphasis on the problems of industrial and international forestry. Although their research included traditional harvest scheduling and non-industrial landowner studies, neither Jim nor his students restricted themselves to these classic questions of forest economics research. Jim's students also largely moved beyond the boundaries of academic research to play greater roles in industrial forestry and international agencies.

In sum, Sam and Jim, and their students, were empiricists first. They relied on the region to provide their research questions and they tested these questions with real data. They also continually tested themselves with the conceptual rigor of their economic training. The proof of their successes lies in their accomplished real world participation.

But let's look further, beyond the experiences of two outstanding individuals and their students. I submit that the general history of forest economics, in the South and beyond, features only two topics, harvest scheduling (or timber supply) and private landowner studies. Many of us carry one of these two union cards and forest economics outside the South still does emphasize these two topics.

On the other hand, the problems of forest economics have always been broader in the South. Consider Dutrow's (1971) assessment of exotic plantations, Davis' (1967) examination of seed orchards, and the economic assessments of genetic improvement at North Carolina State University or Holley's (1970) investigation of plywood location—to name a few. I anticipate this breadth occurred because the South had all the public land and old growth management problems traditional in North American forestry, but the South also had—and has—a more advanced forest industry, a larger share of non-integrated private forest landowners, and a greater diversity of state and local community forestry issues. The South provided a breadth of forestry questions that was only waiting the perception of Sam Guttenberg and Jim Yoho.

Enough, however, about my perspective on the history of southern forest economics research. This history has lessons for our future—and I will return to them. When Dave Wear assigned "The Future of Forest Economics in the South" as my topic for this paper we identified

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1Forestry Department, Virginia Tech. David Wear's thoughtful comments provided the initial ingredients for this paper. Subsequent comments by David Klemperer, David Newman, and John Muench helped clarify several points. The paper was presented at the 1993 annual meeting of the Southern Forest Economists on April 22, 1993, in Durham, NC.
two appropriate themes: a) who sets the agenda and b) if the demand for forest economics is increasing, then where are the emerging niches?

Perhaps the US Forest Service sets the agenda. The Forest Service is the traditional source of research funding, but it also has its own set of problems which are narrower than those from all of forestry or any of forest economics.

Perhaps the lead academic forestry institutions (Berkeley, Duke, Michigan, Syracuse, Wisconsin, Yale, etc.) and their faculty set the agenda. Perhaps at one time, but not today. A few of these institutions have no rigorous and analytical social scientists among their faculty today, and surely most of them are not training replacements.

We might examine the reason for this leadership failure, and the reason it occurs just when the combination of forestry problems and social science perspectives on them are at their highest profiles in twenty years. Our real question in this paper, however, is "who does set the agenda?" The answer is "the market". This is good news for those of us who believe in democratic systems for addressing public issues and consumer sovereignty for private issues. The market sets the agenda both for topics and for standards of quality.

The market set the traditional harvesting and private landowner research agenda for the rest of North America and it set a broader agenda for the South where the problems of forest economics were broader. Harvest scheduling was the important public policy and private management question in the West. Private landowner questions were at the core of public concerns with timber supply and private concerns with political regulation in the Lake States and the Northeast. Guttenberg and Yoho deserve credit for breaking with their colleagues and responding to the South's different market—and for their analytically rigorous, yet empirical manners of addressing their market's additional questions.

In today's market for insights into forestry's problems, public forestry issues are broader than the important problems of US Forest Service and Forest Service funding. Demand for forest economics research also comes from industry planners, international development agencies, the Environmental Protection Agency, environmental groups, and state regulatory agencies. And they all pay for research!

In today's market, the issues of the industry are greater than single firm or single landowner harvest scheduling. They include contracts, the financial impacts of environmental regulations, and resource input security in the presence of a complexity of disparate landowners and consumers interacting in ways not discussed in any forest management textbook. The industry pays for good evaluations of these issues. Furthermore, today's public interest is forcing altogether new industry attention on its labor input and on income distributive issues. These labor and distributive issues are not a part of any existing forest management, forest economics or policy, or natural resource economics textbook to my knowledge.

Finally, today's market is causing us to understand that the interests of non-industrial private landowners extend beyond their timber values. Finally, non-market values count in forest economics research. If you doubt my emphasis on the word "finally", then I must ask how may forest economists of my vintage and older ever published serious research on non-market values? On the other hand, I point out that many younger or more recent entrants to the forest economics club are making careers in non-market forest valuation. In the South, these recent entrants have levels of acceptance and credibility by our club that, I submit, would be unusual in the Midwest, Rocky Mountains, or the Far West, the traditional geographic centers of forest economics. Once more, environmental and international agencies, as well as the US Forest Service, pay for research on non-market values. So do some private forestry consultants.

If a new and broader market sets the agenda and if our club is becoming broader itself, then is this a good time to revisit the standards of full membership in our club?

We all share the intention to produce the best applied combination of good marginal analysis and good forestry. All too often, I submit, this standard has been met by peer acceptance of the researcher, rather than peer judgment of the research. Acceptance of the researcher by other forest economists may be insufficient today, however, because the expanding market can find too many other economists, operations researchers, and other social scientists outside of forest economics who are trained to test rigorously stated hypotheses and who can apply their skills in forestry. The members of our club better meet the highest tests or they will find their funding tied to a diminishing traditional forestry base while other economists, operations researchers and other social scientists will obtain the larger quantities of forestry research funds from EPA, the World Bank, etc. Especially in the South, we better satisfy the highest standard—or others are ready to replace us now. Consider the number of agricultural economists and economics PhDs attending this SoFEW meeting who are already competing with traditionally trained forest economists and, fortunately for us, improving the quality of our little club.
Perhaps this is disappointing, but it is not surprising. It is disappointing that the traditional forest research institutions, funding institutions, and senior researchers themselves are not always ready leaders today. Too often they forget the lessons of Gutenberg and Yoho. It is not surprising, however, because all professions seem to suffer similarly, and to grow similarly. While I was a graduate student, the University of Michigan vice president for research, a biological scientist, cautioned me on my concern for the direction of forestry research, and pointed out that medicine and law have a comparable history. He argued that medical researchers, for example, tend to place themselves apart from good biological science researchers, and many medical researchers accept only with initial discomfort the applications of non-MD bioscience researchers for membership in the MD science club. Yet it is the PhD biochemists, virologists, parasitologists, etc. who often show their MD colleagues the best new applications of good medical science.

This problem of professional groups in general is disappointing and not surprising. In forest economics in the South today it is also promising. It is promising because we have the external market pressures and public excitement that encourage vitality in our field. We even have the people and, in the South, we allow them membership in our forest economics researcher club. Indeed, I think this helps make the South the clear regional leader in forest economics research today. Just consider who the productive young forest economics researchers are and where they are.

With this promise, however, comes a responsibility to help overcome the leadership failure we identified previously. The productive young researchers should accept the challenge to identify the few most important forest policy and management research questions, to take one or two of these as fundamental personal assignments for the next four or five years, and to explore all the important features of these one or two questions. Solutions are not necessary, progress toward better understanding is. We can guarantee that progress will yield all the personal success and recognition any of us can desire.3

Finally, I will suggest my own list of important research questions, but not before reminding us that I am one of those older researchers who my own arguments feature as too narrow to be a reliable selector. I expect that any promising entrant to forest economics research should examine my list most critically. The good part of my recommendation is not this list, rather it is to make your own research selections from among the most important forest policy and management topics you can identify. Select local empirical applications if you will, but only as they are instructive of broader regional, national and international forestry problems.

Nevertheless, I do have a list. It includes a number of strictly economic research topics, as well as some broader forestry topics that can usefully apply the tools of economics.

The strictly economic research topics include (1) industrial planning and management, (2) public regulation, (3) various distributive issues, and (4) a number of macroeconomic and regional economic issues. Industrial planning and management includes all the problems of firms in either competitive or oligopolistic timber producers’ markets, who face oligopsonistic mills with their own incomplete resource bases and who generally sell their products in competitive markets.

The timber producing firms, and the public with its different perspective, both confront the questions of public regulation, and particularly environmental regulations, or--in economic terms--market and policy failures in forestry. Yet I must ask just where is the literature measuring the welfare effects associated with specialized environmental controls, taxes, and subsidies in forestry? We believe that water quality restrictions, capital gains, and forest incentives play large roles in forestry operations and private timber supply, but the scientifically rigorous empirical evidence is scanty at best.

Is there a literature on distributive issues? We owe our compliments to IMPLAN, but there are numerous labor impacts and measures of community welfare that cannot be addressed within the restrictions on substitution and factor mobility imposed by input-output modeling. Furthermore, what are the impacts of forest activities and forest policies on minorities and the rural poor? Is it fact or myth that resource-based development has potential to help the rural poor?

Finally, we confidently anticipate that macroeconomic policy impacts on money supply and the construction industry rapidly pass on to the timber producing sector and to forested regions. Is there any evidence to support our casual anticipation?

Some of the grandest public debates of our day could usefully apply the tools of marginal analysis together with an understanding of natural systems. These should be particularly interesting applications for forest economists since we are trained to think about forestry as well as economics, or economics and ecology interactions. Consider (5) environmental risk and two of its long-term component issues (5a) sustainability and (5b) biodiversity, or the economics of protecting a full
range of future options. (Forest economists might contribute to the general discussion, or they might focus on forest communities, natural or human, as particularly illustrative examples of the general discussion.) Consider specialized environmental risks like (6) tropical forest management, or restrictions on sustainability or biodiversity like those affected by (7) exotic flora and fauna (e.g., introduced pests) or the protection of sustainability and biodiversity provided by various (8) environmental regulations. Tropical forest management raises more specialized questions having to do with trade, rural development, and upland tropical environments. Environmental regulation includes timely issues like water quality, riparian zone impacts and, of course, forest management impacts on endangered species like salmon and spotted owls. Environmental regulation also returns us to the more specialized topics associated with (1) industrial forest management.

None of these research questions are especially southern. Each might have a southern component or example and many southern forest economists, with their expectations that forest economics is more than harvest scheduling and landowner studies, may be particularly well-prepared to participate in discussions of these research and policy questions.

I believe this list, indeed, I believe most of the comments in this paper are largely valid for other social and management scientists working in forestry research. The challenge to anthropologists, sociologists, political scientists, and legal researchers working in forestry today is similar to the challenge to forest economists. That challenge is to be similarly broad in their definition of research problems, similarly willing to accept well-prepared non-foresters in their research clubs, yet similarly rigorous, analytical, and empirical in their personal research, and to choose their research topics from only the most important forest policy and management problems of the day.

ENDNOTES

1 Even Bill Duerr was an early collaborator with Guttenberg (1956).

2 Most of the early landowner studies recognized that non-industrial landowners produced timber only according to the landowner’s comparative advantage—which was often in agriculture not forestry. Recreation and other non-market values were less frequently discussed landowner objectives. Yoho and other students of James at Michigan State University, together with Duerr and his students at Syracuse, were the primary producers of these studies. Jack Muench (1966) among Yoho’s students continued this work in the South.

3 Since I prepared this paper, Meyer published an article in Science that makes many similar arguments, except for the land grant college system. Meyer argues that the survival of the land grant college system is threatened, that it cannot rely on the US Department of Agriculture for direction, and, therefore, that it needs a new sponsoring agency. I would argue that the land grant college system might find this new "agency" as southern forest economists have found theirs— in the modern, often externally-trained, participants in its own ranks. For agriculture, these might be rigorously trained disciplinarians with empirical orientations on the breadth of the modern problems of rural communities and consumers of agricultural products as, for forest economists, the focus might be on forest-based communities and both market and non-market goods and environmental services provided by the forest resource.

LITERATURE CITED


