

# An Evaluation of Three Democratic, Community-Based Approaches to Citizen Participation: Surveys, Conversations With Community Groups, and Community Dinners

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*In recent years, the thinking of practitioners and scholars from the fields of community development and public involvement has converged in supporting local, community-based approaches for citizen participation in making decisions about the management of public lands. Community-based approaches are supported because citizens have local knowledge, understand local conditions, can practice direct democracy, and can help develop solutions to problems of integrated and sustainable forest management. However, there is little information available to evaluate the effectiveness of community-based strategies. This study evaluates how well three participatory techniques—a mail survey, focused conversations with existing community groups, and community dinners—meet three key community-oriented criteria: representativeness, working toward identification of community-wide common good, and incorporation of values and beliefs into the discussion. The evaluation conducted in this study indicates that the techniques produce positive results for two of these criteria, but may not be representative of the communities as a whole.*

**Keywords** community forestry, evaluating participatory techniques, participatory democracy, public forest management, public participation

In recent years, there has been a convergence of thinking by those concerned with community development and citizen participation in public forest management. This convergence has resulted in the growth of local, community-oriented approaches to public forest planning and management. However, there is little information available to evaluate the effectiveness of community-based strategies.

Received 28 September 1998; accepted 12 January 2000.

The authors thank Drs. Bruce Lauber and Steven Selin for their valuable comments on earlier drafts of this article. They also thank the three anonymous reviewers who assisted in creating a better article.

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The purpose of this article is twofold. First, we explore the reasons proponents give for taking local community-oriented approaches to public involvement, including citizens having local knowledge, understanding local conditions, practicing direct democracy, and helping to develop solutions to problems of integrated and sustainable forest management. Second, we evaluate how well a set of community-based participatory techniques achieves a democratic, community-oriented approach to participation. The study was conducted in three communities in the western Upper Peninsula of Michigan.

## **Part I: The Basis for Community-Oriented Approaches to Public Involvement**

The movement toward more locally based, collaborative decision-making processes for management of public lands has emerged from many sources. Within public forest management, this emergence can be traced to practitioners and scholars in the fields of community development and public involvement processes.

There is shared logic between the fields of community development and public participation regarding the value to public land management of taking community-oriented, democratic approaches to citizen participation. This thinking can be organized into four categories:

*The value of local decision making.* A number of practitioners and scholars have addressed the value of local decision making for public land management. In the community forestry literature, there is evidence that members of the public who are closest to the resource may hold less extreme positions about management options than either agency personnel or interest group representatives (Tanz and Howard 1991). From a public participation perspective, local decision processes are seen as encouraging members of the public to think of themselves as citizens rather than consumers of a product (Stivers 1990), which can lead to more productive working relationships and more community-minded outcomes (Carey et al. 1994). Finally, local decision processes have positive effects beyond the actual outcomes of the process by empowering communities to participate more fully in subsequent decisions (Lowery et al. 1992).

*The value of locally appropriate solutions.* Community development practitioners and scholars advocate stronger local participation in public forest planning and management because of the proximity and dependence of local communities on forest products. Frequently, communities and their residents near public lands bear the greatest costs of managing these lands and do not receive adequate benefits in return (Rural Sociological Society Task Force on Persistent Rural Poverty 1993). Community residents can contribute invaluable knowledge about the local ecological, social, and economic context to discussions of public forest management (Brosius et al. 1998). This intimate knowledge of the decision-making context that is part of locally led decision-making processes can yield outcomes that are suited to the local social, economic, political, and ecological conditions (Brendler and Carey 1998; Tauxe 1995). Because of the emphasis on addressing the local context, these outcomes are likely to be more innovative than those tailored more generically (Brandenburg et al. 1995).

*The practice of participatory democracy.* Public involvement practitioners and scholars point out that the right to participate meaningfully in the formation of decisions that will effect citizens is assumed to be a basic tenet of the United States political system (Tanz and Howard 1991; London 1995). In the 1970s and 1980s, this right to

participate in public forest management was incorporated into several pieces of federal regulation (Dana and Fairfax 1980).

Public involvement activities by federal land management agencies beginning in the 1970s through the present have received considerable evaluation. A major criticism arising from these assessments is a lack of evidence that public involvement has had any significant effect on the decisions being made (cf. Russell et al. 1990). Public involvement practitioners and scholars as well as members of the public have encouraged the adoption of processes that provide for two-way dialogue and power sharing between agency decision makers and citizens to achieve a shared vision for the future of national forests (Force and Williams 1989; Gericke et al. 1992; Carr et al. 1998). While this conceptualization of citizen participation is not new (cf. Arnstein, 1969), what is new is the convergence between this view of participation, current thinking about community development, and the mainstream of public forest management.

Public participation practitioners and scholars make strong arguments for the benefits of invoking the principles and practices of participatory democracy in public land management. Participatory democracy involves affected parties collaborating together to help formulate a desired outcome (Knopp and Caldbeck 1990; USDA Forest Service 1998). Through deliberation and mutual learning, people move beyond simple compromises to achieve solutions that are better than what any individual interests can create (London 1995). This exercise of citizenship to achieve the public good is the central aim of participatory democracy (Gawthrop 1984; Shannon 1990). A significant benefit of viewing public land management from a participatory democracy perspective is that it explicitly recognizes that planning is a social, political, and economic process in addition to being a scientific endeavor (Fiorino 1990; Salwasser 1994).

*Developing integrated and sustainable forest management alternatives.* The first three supporting arguments for taking a community-oriented approach to involving citizens in public forest management focus primarily on the *process* of citizen involvement in public forest management decision making. This last reason focuses on the *outcomes* of decision making and is where current thinking about public participation and community development merges with current thinking in the mainstream of public land management, that of ecosystem-based management. The emphasis in ecosystem-based management is on integrating physical, biological, and social dimensions of ecosystems to devise sustainable alternatives for the landscape (Moote et al. 1994; Committee of Scientists 1999). Community forestry has at its base the belief that local community well-being and forest sustainability are inseparably linked (Duinker et al. 1994; Mallik and Rahman 1994; Brendler and Carey 1998). This emphasis on integration links community well-being, citizen participation, and ecosystem sustainability in ways that have not previously been apparent within the public land management profession (Cortner 1996).

This convergence in thinking shows great potential as a guide for restructuring citizen participation in public forest management to the benefit of local communities and ultimately for more sustainable forest management. However, it is important to proceed with caution in adopting community-oriented approaches to citizen participation since so little critical evaluation has been done to assess the effectiveness of this approach in achieving these four goals just discussed.

## **Part II: Evaluating Participatory Techniques**

Various aspects of traditional citizen participation processes (i.e., processes done to meet National Environmental Policy Act [NEPA] requirements such as open houses,

hearings, etc.) used in the public land management context have been evaluated during the past two and a half decades. The evaluations have focused on how citizen information has been used to influence the decision-making process (cf. Mohai 1987; Tauxe 1995), whether processes mediate conflict (cf. Wondolleck 1988; Gericke et al. 1992), and who participates in these processes (cf. Heberlein 1976; Gundry and Heberlein 1984; Milbrath 1981; Burch 1976; Wellman and Fahmy 1985).

Poisner's (1996) evaluation of participatory processes from a deliberative, community-oriented perspective is particularly useful for this study. While Poisner suggests seven criteria for assessing the effectiveness of this type of approach, this article applies three of his criteria (the representativeness of participants, discussion of the common good, and identification of values and beliefs underlying participants' positions) to conduct an exploratory assessment of three community-oriented participatory techniques.<sup>1</sup> While each of the three criteria could be an entire study in and of itself, we have focused on an expansive exploration rather than an in-depth focus on any one of the questions. Our goal is to use this study to further refine the topic for future research.

For the purpose of our evaluation, we operationalized Poisner's three criteria as follows:

*1. Do the participants represent all significant sectors of the community?* If significant components of the community who will be affected by the outcome are not part of the process, important dialogue and issues will be lost. Outcomes may not truly represent the common good. For community-oriented participation techniques conducted in areas in and around public lands, it is reasonable to expect that nearly everyone in the community would be affected by management decisions in some way (e.g., directly through employment or recreation use or indirectly through secondary social or economic impacts), so that participants would be expected to represent the demographic composition of the community (at least approximately).

*2. Does the process focus upon the common good?* Traditional participation processes largely focus discussion on individual preferences and demands, rather than on larger community-wide needs. Focusing on the common good leads to a search for integrated solutions rather than competing individual agendas. Identifying community needs related to public forest management will emerge from extensive interactions between community residents and land managers. We see the first step in this process taking place when people raise the connection between these forests and their community's well-being in discussions. We evaluate whether each of the participatory techniques generates information about connections between community well-being and public forests.

*3. Does the process engender critical reflection of the values underlying the discussion?* To move beyond individual demands, participants need to evaluate the underlying values and beliefs they use to form their own positions. As participants understand their own and other participants' values and beliefs, information can be exchanged and discussions about community-wide values can emerge. Like a search for the public good, reaching the point of discussing values underlying participants' positions takes interaction over time. We evaluate whether each of the participatory techniques yields information about why participants feel the way they do about their positions on public forest management issues.

## Study Areas

Three communities located in the western end of Michigan's Upper Peninsula approximately 90 miles apart were the focus of the study. These communities were chosen for two reasons. They are located close to a national forest, and they are large enough to have a diversity of people and organizations present. In 1990, populations were 8406 (Iron River), 16,045 (Ironwood), and 35,446 (Houghton/Hancock) (Geolytics, Inc. 1996–1998).

The communities are similar to one another in terms of their development and history, with all three having experienced economic prosperity and declines associated with both mining (copper and iron ore) and forestry. Houghton/Hancock is the most socially and economically diverse of the three communities, with a public university (Michigan Technological University), tourism, and a role as a regional retail center. The chief difference between Iron River and Ironwood appears to be the length of recovery time since the closure of the last iron and copper mines (once the major source of employment for both communities). All mining activities ended in Iron River in the 1960s, whereas copper mining continued in the Ironwood area until the late 1980s. Iron River lost a manufacturing firm in the 1980s, but overall, the community's economy has been reasonably stable and is beginning to grow. Ironwood also lost two large lumber mills in the 1980s, and the community is grappling with how to react to these losses. Economic conditions in Ironwood are dire enough for the community to have been awarded federal funds to assist in its economic recovery.

## Characteristics of the Participatory Techniques

The methods evaluated in the study were chosen to meet three criteria. First, the techniques needed to be community oriented in that they should as much as practical be open to participants from all sectors of the community area. Second, the techniques should represent a variety of social settings to gather information so that the nature of dialogue and civic virtue can be assessed.<sup>2</sup> Finally, the methods needed to be straightforward enough to be adopted by national forest managers for future use with minimal social science assistance. This third criterion was included because the local national forest was interested in learning about techniques that would reach community residents who had not typically been a part of their traditional public involvement processes.

Using these criteria, three techniques were selected for evaluation: a mail survey, focused conversations (focus groups) with existing community groups, and community dinners. While no technique met each of the criteria perfectly, each comes close, and taken together, they offer a good variety of participatory techniques. How the techniques were operationalized and their limitations are discussed next.

### *Mail Survey*

A mail survey was chosen to represent an anonymous, individual method of participation. Anything learned about the community will represent an aggregate of individual responses. In January 1998, a survey was mailed to a random sample of 1515 homeowners in Ironwood and Iron River. An equal number of surveys was sent to each community, with equal numbers sent to each township and incorporated area within the communities. The sampling plan for the survey was designed to meet research objectives not addressed in this article.<sup>3</sup>

A postcard reminder followed up the initial survey mailing 2 weeks later. This process yielded a total of 612 usable surveys for an effective response rate of 41%.<sup>4</sup>

Three questions from the survey are included in this analysis. One global measure of concern about community well-being was included. Two questions were developed to assess respondents' land management concerns. The first question asked whether people felt there should be more, less, or the same level of several specific management activities on the Ottawa National Forest (e.g., creating campgrounds, maintaining campgrounds, clear-cutting for aspen and jack pine regrowth, allowing old-growth forests to develop). The second question focused on respondents' general orientation toward public forest management through a list of beliefs about public forests and their management (e.g., "Forests are as much a part of a community as its streets and buildings"; "How forests are managed is the responsibility of professional foresters"). The individual items in each of the questions were developed from interviews with residents in the communities.

### *Conversations With Community Groups*

Focused conversations with existing community groups were conducted during the groups' regularly scheduled meeting times. We expected that participants would find this format both convenient (they were going to be there anyway) and comfortable (they were acquainted with all the other participants), which in turn would facilitate open dialogue about forest management issues. This technique has been successfully used by another national forest in the state (M. McDonough, personal communication 1996).

Data collection for the conversations occurred between October 1997 and August 1998.<sup>5</sup> A total of 105 individuals from 10 groups in the 3 communities participated in the community group focused conversations (see Table 1). The groups participating in the study are not a representative sample of groups in the community.

**TABLE 1** Number of Meeting Participants by Group and Location

| Name and location of group or meeting   | Number attending |
|---|------------------|
| Houghton/Hancock                        |                  |
| Kiwanis                                 | 24               |
| Portage Lake Sportsmen                  | 6                |
| Michigan Tech Mountain Bike             | 7                |
| Land Trust                              | 5                |
| Upper Peninsula Environmental Coalition | 4                |
| Ironwood Area                           |                  |
| Fat Tire Mountain Bikers                | 9                |
| Kiwanis                                 | 27               |
| Dinner and Discussion                   | 12               |
| Iron River Area                         |                  |
| Wilderness Sportsmen                    | 6                |
| St. Agnes Women's Church Group          | 17               |
| Dinner and Discussion                   | 31               |
| Total community group participants      | 105              |
| Total dinner participants               | 43               |
| Total meeting participants              | 148              |

One researcher, a graduate student assistant, and a Forest Service employee attended each meeting with the community groups. The researcher acted as a facilitator, introduced the meeting and its purpose, and informally led the group through a series of open-ended questions. These questions were very broad and included the following: (1) What makes this community special? (2) What are your hopes and fears for the community's future? (3) How do you use and enjoy the Ottawa National Forest? (4) How do you want to see the Ottawa National Forest managed? The researcher allowed participants to direct where the conversation and answers went within each of these questions. Participants, not the researchers, raised the specific topics presented in the following sections. The meetings were taped and transcribed and the assistant took notes from the discussion.

### *Community Dinner and Discussion*

The dinner technique was chosen to emulate a more natural social event where dinner is served and people interact over the dinner table to discuss forest management issues. This approach was pioneered by the Wisconsin Clearinghouse for Prevention Resources (1997) in Madison, WI.

An open invitation was advertised throughout the community asking all interested residents to come for dinner and a discussion of public forest management. Participants bought an inexpensive ticket to the dinner. The purpose of the dinner was introduced by a local credible citizen (e.g., a newspaper reporter) with a welcome from Forest Service staff and the researcher. After dinner, participants discussed a set of questions that paralleled those asked at the focused conversation sessions. Like the conversations, care was taken by the researcher not to introduce topics into the discussion and to allow the conversation to flow where participants took it. Each of the dinner tables was self-facilitated. One participant took notes and recorded the table's answers to each of the questions on sheets that were provided. At the end of the evening, the tables reported their answers to the entire group, and these answers were recorded on a flipchart. Table and flipchart notes served as a record of participants' responses for this evaluation.

Between May and July 1998, two community dinners were held. The first in Iron River was relatively well attended with 31 community members participating. The second in July in Ironwood received poor attendance (12 people) that was likely due to poor limited newspaper coverage and busy summer schedules.

### **Analysis**

The analysis focuses on our operationalization of three of Poisner's criteria: (1) whether participants were demographically representative of the communities as a whole; (2) whether connections between community well-being and public forests emerge from the techniques; and (3) whether information about participants' underlying beliefs and values regarding their positions on forest management arises from the techniques.

Representativeness was analyzed by comparing gender composition, age, income, and education levels of participants in each of the techniques against 1990 U.S. Census data for the study communities using CensusCD C Maps, Version 2 from Geolytics, Inc. (1996–1998).

Analysis of common good (operationalized as connections between community well-being and public forests) was purely qualitative with the focused conversations and dinners. Transcripts of each session were reviewed by both researchers independently for statements showing evidence of this connection. The survey item "I care about

the well-being of this community” was analyzed for correlations with responses to a question with 21 management activities occurring on public lands in the area.<sup>6</sup> All items were on a 5-point Likert scale (−2 to C2) indicating respondents’ positions on concerning the various management activities on the Ottawa National Forest.

Finally, analysis of the discussions of beliefs and values underlying forest management positions in the focused conversations and dinners was conducted qualitatively, with each researcher independently reviewing the transcripts for evidence of underlying beliefs and values. For the survey, each of 10 items about underlying beliefs and values regarding how public forests should be managed is analyzed using stepwise regressions to predict the 21 management activities.

In addition to presenting results from the three participatory techniques, Poisner’s (1996) assessment of how traditional NEPA participatory techniques fare against these same criteria is presented as well to act as a baseline comparison for the study techniques.

## Results

### *Representativeness*

Table 2 presents the gender composition, age, income, and education levels for participants in each of the three study techniques, as well as 1990 U.S. Census data for the community areas involved. Participants in the techniques were virtually identical to one another in these demographic characteristics and fairly different from the communities as a whole. The proportion of women participating in all three techniques was lower than in the communities as a whole (28–31% of participants were female vs. 49% women in the communities). Participants were older than the communities as a whole (57–62 years old vs. community average of 47 years old). Median income levels of participants in all three techniques were higher than the communities as a whole (\$30,000–35,000 for participants versus \$17,357 for the communities as a whole). The same pattern holds for education levels, with fewer participants having less than a high school degree than in the communities as a whole (0–6.9% vs. 25.3%, respectively) and slightly more having college degrees (25.6–31% vs. 22.4% for the communities as a whole).

Poisner (1996) did not discuss the demographic composition of participants in the traditional NEPA meetings. In a national assessment, Force and Williams (1989) found that the participants in national forest planning public meetings were predominately male (84.8%), had relatively high incomes (65.1% made more than \$25,000), were fairly well educated (a mean of 15.7 years of schooling), and had an average age of 47 years.

### *Identifying the Common Good*

Table 3 displays the correlations between responses to “I care about the well-being of this community” and respondents’ positions on various management activities on the Ottawa National Forest from the survey. Because of the large sample size, many of the correlations are statistically significant even though they are small, ranging from nearly .10 (managing for nontimber products  $p = .03$ ) to .19 (maintaining hiking and biking trails  $p = .00$ ). None of the timber-related management items (“managing for timber production,” “clear cutting for aspen and jack pine regrowth,” and “clear cutting to create wildlife openings”) is significantly correlated with responses about community well-being ( $r = .08$ ,  $p = .09$ ;  $r = .04$ ,  $p = .34$ ; and  $r = .05$ ,  $p = .26$ , respectively).

**TABLE 2** Demographic Characteristics of Participants by Technique and Census Data

| Demographics     | Survey  | Groups <sup>a</sup>  | Dinners <sup>a</sup>   | Communities <sup>b</sup>   |
|------------------|---|--|--|--|
| Mean age (years) | 58 ( <i>n</i> = 615)  | 57 ( <i>n</i> = 44)  | 62 ( <i>n</i> = 43)  | 47 ( <i>n</i> = 59,897) <sup>c</sup>                               |
| Median income    | \$30,000 ( <i>n</i> = 453)  | \$30,000 ( <i>n</i> = 9)   | \$35,000 ( <i>n</i> = 19)  | \$17,357   |
| Education levels | <H.S. <sup>c</sup> 7%<br>4 YRC <sup>e</sup> 26%<br>33% 31%<br>( <i>n</i> = 622) | <H.S. <sup>c</sup> 0%<br>4 YRC <sup>e</sup> 31%<br>69% 30%<br>( <i>n</i> = 16) | <H.S. <sup>c</sup> 0%<br>4 YRC <sup>e</sup> 72%<br>72% 28%<br>( <i>n</i> = 25) | <H.S. <sup>c</sup> 25%<br>4 YRC <sup>e</sup> 38%<br>25% 22%        |
| Gender           | Number females 192<br>Number males 429<br>Percent female 31                     | Number females 32<br>Number males 73<br>Percent female 30%                     | Number females 12<br>Number males 31<br>Percent female 28%                     | Number females 29,557<br>Number males 30,340<br>Percent female 49% |

<sup>a</sup> The sample size responding to demographic questions varies widely because of differences in pre and post meeting surveys.

<sup>b</sup> Total population of the three study communities.

<sup>c</sup> Less than a high school diploma.

<sup>d</sup> A high school diploma, but no 4-year college degree.

<sup>e</sup> At least a 4-year college degree.

**TABLE 3** Correlations Between Community Well-Being and Forest Management Activities

| Management activity  | Pearson's $r^a$   | $p$ Value | $n$ |
|--|-------------------|-----------|-----|
| Creating campgrounds   | .014 <sup>b</sup> | .001      | 558 |
| Maintaining campgrounds  | .109 <sup>b</sup> | .010      | 561 |
| Creating hiking and biking trails  | .172 <sup>b</sup> | .000      | 547 |
| Maintaining hiking and biking trails   | .191 <sup>b</sup> | .000      | 543 |
| Creating snowmobile and off-road vehicle trails  | .133 <sup>b</sup> | .002      | 555 |
| Maintaining snowmobile and off-road vehicle trails                                       | .142 <sup>b</sup> | .001      | 554 |
| Providing permits for commercial recreation outfitters                                   | .003              | .943      | 463 |
| Charging access fees for some recreation areas   | .072              | .099      | 527 |
| Managing for timber production   | .075              | .089      | 509 |
| Managing for nontimber products  | .099 <sup>a</sup> | .029      | 483 |
| Clear-cutting for aspen and jack pine regrowth   | .042              | .338      | 517 |
| Clear-cutting to create wildlife openings  | .050              | .257      | 520 |
| Improving habitat for game species   | .156 <sup>b</sup> | .000      | 551 |
| Improving habitat for nongame species  | .149 <sup>b</sup> | .001      | 538 |
| Improving inland fish habitat  | .149 <sup>b</sup> | .000      | 553 |
| Protecting endangered species habitat  | .184 <sup>b</sup> | .000      | 556 |
| Allowing old-growth forests to develop   | .099 <sup>a</sup> | .019      | 556 |
| Minimizing management—letting nature take its course                                     | .043              | .325      | 525 |
| Volunteer opportunities to work with forest management agencies on projects in the woods | .117 <sup>a</sup> | .010      | 479 |
| Opportunities to work with forest management agencies to help make management decisions  | .108 <sup>a</sup> | .018      | 484 |

<sup>a</sup> Correlates with responses to the statement "I care about the well-being of this community."

<sup>b</sup> Correlation is significant at the .05 level (two-tailed).

<sup>c</sup> Correlation is significant at the .01 level (two-tailed).

Comments and discussions of the connections between community well-being and public forests are numerous in the focused conversations and dinners. Three themes emerged from the analysis. First, there was a widespread recognition of the contribution public forests make to the quality of life in the communities. Examples of this sentiment include a participant in a focused Ironwood conversation who said, "We take everything for granted when you live here . . . I have a commitment to staying because of the natural resources, the woods and water." Summary comments from the dinner at Iron River include: "The adjacent national forest—at our back door—means a good lifestyle because of its availability to everyone, its history, and wildlife."

A second theme relates to the interface between private property rights and the community good. Particularly in Houghton, participants struggled with their respect for citizens' rights to do what they want on their land and the broader needs of the community to maintain the unique (undeveloped) character of the area, have a sustainable economy, and maintain access to forests. These quotes illustrate this well:

What makes it so frustrating for me is that having lived elsewhere and read about and seen places lose what's precious to them, in terms of their unique character and beautiful open spaces, and then after they're losing it, they start

acting and putting in some zoning to protect what tiny bit is left. We can learn from those experiences of others. (Houghton, focused conversation)

It's an issue as far as individual rights... It's important for the community as a whole to have highways and rock crushers, but it isn't done without consequences to other individuals. (Houghton, focused conversation)

A third theme relates to pursuing forest-based economic development that enhances community well-being. This theme was discussed in every focused conversation and dinner. Particularly in Ironwood and Iron River, participants felt a need for forest-based industry to provide jobs so local young adults do not have to move away to find jobs and to attract young families to the area. Participants in both of these communities perceive their community as aging, becoming stagnant, and unwilling to change. A participant in an Iron River focused conversation commented, "Our economy is bad, we can't keep young people, we're a retirement community." Summaries of notes from both the Ironwood and Iron River dinners reflect the desire to provide quality jobs for young people and develop more ways to allow people to stay in the communities. This sentiment was echoed by a Michigan Technological University student in a focused conversation, "I would stay if I could get a job up here."

Another aspect of this theme relates to deriving more local economic benefit from existing forest industry (commodity and tourism). This was discussed in all three communities. These quotes illustrate this aspect:

I see ways in which it might be better for the economy here to have smaller scale selective logging and then keep the wood in the area and have the people who are making the products out of it—actually working in this area rather than having big scale logging and having everything shipped out someplace else. (Houghton, focused conversation)

Forest planning doesn't pay attention to tourism which can have a large economic impact on the community. (Iron River, focused conversation)

Another aspect of this theme relates to pursuing economic development while also managing growth and respecting the unique character of the communities and maintaining the area's environmental quality. These issues were discussed in all three communities. There was discussion of sustainable forest management contributing to community well-being. Comments illustrating this aspect include:

Our area is so subtle, I hope that we won't be so overdeveloped where a quality of life will disappear. (Ironwood, dinner)

The question is how to balance economic growth, but not letting the area get overrun. (Iron River, focused conversation)

I'd like to see the community character preserved. What that means to me is that any growth that comes to the area would be what they call city-centered. It would be close to downtown... then the outlying areas would be preserved. (Houghton, dinner)

I'd like to see a lot more high quality hardwood forests, rather than small aspen forests. It would be sustainable and economically viable too, in the long term. (Houghton, focused conversations)

Beyond these specific aspects of community/forest connections, analysis of the transcripts indicates that the community dinners and focused conversations with generalist groups provided broader, more generic information about the connection between communities and public forests. Conversations with resource groups provided more detail about specific forest management activities that have potentially positive or negative effects on communities.

Poisner (1996) evaluates traditional NEPA-oriented participatory techniques as being very ineffective for fostering discussion of public or the community good. He finds that these techniques operate either to exchange information about resource-oriented issues or as avenues for individuals or groups to advocate their positions. Neither of these approaches lead to discussions of the larger public good.

### *Underlying Values and Beliefs*

Table 4 displays the results of a stepwise regression analysis with each of 12 items reflecting respondents' underlying beliefs or values about how public forests should be managed as independent variables and the 21 management activities as dependent variables.<sup>7</sup> Four groupings of belief statements are included. Two items are general statements of the linkages between communities and forests. Perhaps because of their very generic nature, these items are very poor predictors of management activity preferences with adjusted  $r^2 = .064$  and  $.086$ , respectively, for the statements: "Forest lands are a community to which we as humans belong" and "Forests are as much a part of a community as its streets and buildings." The second grouping of three items looks at respondents' beliefs about forests as ecological systems. These items are the strongest predictors of management activity preferences with an adjusted  $r^2 = .181$ ,  $.250$ , and  $.264$  for the following statements: "Forests are such complex ecosystems they cannot be managed at all," "Managing forests for any purpose upsets nature's balance," and "Forests should be managed and harvested like an agricultural crop," respectively. Two items explore who respondents think should make decisions about forest management. These items are weak predictors as well, with the professional foresters and citizen items explaining  $.057$  and  $.129$  of variance, respectively. The final grouping of items asks respondents whether forests should be managed to protect a range of values (economic, ecological, recreation, spiritual, and commodity values). Explained variances ranged from a low of  $.133$  (for commodity values) to a high of  $.206$  (for ecological values).

Comments and discussions in the focused conversations and dinners reflect many of the same underlying beliefs about how public forests should be managed. There are many comments that pertain to the grouping of survey items related to forests as systems, including:

I'm appalled at the amount of destruction of forest land and meadow land here that has occurred in the last few years [from logging]. (Houghton, focused conversation)

A logger is just a gardener. If you don't weed your garden, nothing will grow. (Iron River, focused conversation)

**TABLE 4** Regression Models Predicting Positions on Management Activity by Underlying Beliefs

| Beliefs about public forests   | Adjusted $r^2$ | F ratio | p Value |
|--|----------------|---------|---------|
| Community/forest linkages:   |                |         |         |
| Forestlands are a community to which we as humans belong                                 | .064           | 8.038   | .000    |
| Forests are as much a part of a community as its streets and buildings                   | .086           | 10.66   | .000    |
| Forests as ecological systems:   |                |         |         |
| Forests should be managed and harvested like an agricultural crop                        | .264           | 28.771  | .000    |
| Forests are such complex ecosystems they cannot be managed at all                        | .181           | 23.136  | .000    |
| Managing forests for any purpose upsets nature's balance                                 | .250           | 18.046  | .000    |
| Making management decisions:   |                |         |         |
| How forests are managed is the responsibility of professional foresters                  | .057           | 10.127  | .000    |
| Citizens working together can make the best decisions about how to manage public forests | .129           | 15.426  | .000    |
| Values that should be protected:   |                |         |         |
| Forests should be managed to protect their commodity value                               | .133           | 16.681  | .000    |
| Forests should be managed to protect their ecological value                              | .206           | 20.992  | .000    |
| Forests should be managed to protect their recreation value                              | .171           | 16.982  | .000    |
| Forests should be managed to protect their spiritual value                               | .153           | 19.140  | .000    |
| Forests should be managed to protect their economic value                                | .171           | 16.974  | .000    |

There's sustainability and then there's sustainability. We have rows and rows of similar trees, and this may truly be sustainable logging, but it's not the sort of logging or the sort of forest I'd like to think we have in our national forests. (Houghton, focused conversation)

Each of the five forest values related to public forest management (economic, ecological, recreation, spiritual, and commodity) were discussed in the two meeting techniques, although "spiritual value" is not well represented. Rather than focus on examples of these five values, there is more insight offered in looking at the values and beliefs raised in the meetings that were not addressed in the survey. These topics include local control, multiple-use management, and access.

Enhancing local benefits from forest management is one of the main benefits touted with community-oriented participation. Aspects of local control raised in the study's focused conversations and dinners include giving local Forest Service employees more authority for management decisions (as opposed to those at national levels) and more involvement of local communities. Comments illustrating this theme include:

The people setting the rules are not in this area. Policies are set in Washington; too much politics, not enough fact . . . I do not want to see the Forest Service so sensitive to the political influence of Washington. (Iron River, dinner)

We have to get involved, make a difference. Outside influences are controlling things. (Ironwood, focused conversation)

There were discussions in all the communities about the importance of taking a multiple-use approach to forest management over focusing on any single use, whether it be commodity or ecologically oriented. Participants voiced concerns that favoring any one use over others is not good for the forest or the communities. Examples illustrating the value of multiple-use include:

Here's the way I kind of feel about it, is that I see it that you can have timber production, wildlife management, you can have recreation management. They don't have to exclude each other. (Houghton, focused conversation)

I fear that the national forests will be turned into national parks with limited use. The Ottawa has tremendous potential. Sometimes groups with a single agenda don't have to prove their objections to the detriment of the forest. (Iron River, dinner)

For many participants, multiple use holds an element of conservation or making good use of the forest products. This was particularly evident with regard to the timber resource where concerns about managing forests to supply pulp and paper mills were voiced, including:

I just don't think we need to be logging trees for paper. The important thing to me would be when you do log, use the wood for what only wood can be used for, like building furniture. (Houghton, focused conversation)

I think there are some loggers who have large machinery and there's a couple mills around here that require large amounts of chips. I think they're turning some of the forest into short-term profits without a concern for the future. (Houghton, focused conversation)

Local access to public land was raised many times in each of the communities. Issues include access for older people, private inholders gating public roads, and a general decrease in roads for access. Comments include:

Everything the Forest Service does, they go in, they shut the road. Your wilderness areas, I mean, 25 years ago, no problem. I'd just whistle my tail right in there, but now I don't whistle quite as good and I don't have access to a lot of these places. (Houghton, focused conversation)

This guy bought three sections back there and blocked two of them off. It wasn't bad enough that he blocked the road, but he built this berm and gate on public land. You have limited access on the road that's been used ever since it was built. (Houghton focused conversation)

In his evaluation of traditional NEPA-oriented participatory techniques, Poisner (1996) finds that these techniques perform quite poorly in exploring values underlying positions and concerns. He says these traditional techniques encourage presentation and discussion of facts or attempts to persuade others to adopt particular positions, but provide no opportunities for discussions of why people hold the positions they do. Values or beliefs are seen as not relevant to this scientific, political process.

## **Discussion**

The study's results provide insight into whether these three participatory techniques move toward a democratic, community-oriented approach to public involvement. Using Poisner's (1996) evaluation of traditional NEPA-oriented approaches as a baseline for discussion, it appears that while not perfect nor without limitations, there is evidence that the three techniques are on the right track, particularly regarding discussion of the community good and underlying beliefs and values about forest management activities.

The three techniques performed most poorly with the issue of representativeness. Demographic results from the study show that while participants across the techniques are very similar to one another, substantial differences exist between the participants and the communities as a whole. Study participants appear to be demographically similar to those involved in traditional NEPA-oriented techniques (Force and Williams 1989). The low response rate to the survey, difficulty of scheduling meetings with community groups for focused conversations, and the modest numbers attending the dinners all seem to indicate that there are some community members currently interested in public forest issues while others are not. This conclusion requires further research to evaluate whether it is truly a lack of interest or other reasons that caused lack of participation (e.g., limitations in the techniques, lack of time, lack of knowledge about public forests, being a research study versus actual meetings conducted by the national forest, etc.).

Another possible explanation is that our operationalization of representativeness is not appropriate. Other characteristics such as political persuasion, status as opinion leaders in the community, or length of residence may have been more meaningful measures of representativeness than those we measured. Perhaps demographic representativeness does not correlate with representativeness of positions on land management issues (cf. Gundry and Heberlein [1984] where participants were demographically different from their community, but their positions did not differ significantly from the community at large). Finally, incorporating the concepts of justice or equity as outcomes of public participation may help focus the discussion of what representativeness means (Cvetkovich and Earle 1994) and what characteristics are important to achieving these outcomes.

Resolving the issue of representation of all interests and concerns is critical to achieving the goals of democratic, community-oriented participatory techniques (Day 1997). Processes that do not include all interests and concerns also do not reap the benefit of all relevant local knowledge. This in turn can result in forest management proposals that are not significantly more appropriate for the community than those generated from other participatory techniques.

Relative to Poisner's (1996) assessment of traditional NEPA-oriented techniques, the three study techniques were successful in generating information about the connection between the community good and public forests. Participants themselves readily used the language of community well-being, talked about responsibility to their community, and wrestled with issues of the community good versus individual rights. While

the correlations between management activities and community well-being were very weak in the survey, it appears this is at least in part attributable to the survey not capturing all of the relevant issues. For community residents who attended the meetings, there is clearly a connection between their community's well-being and public forests. Prevalent in the discussion were concerns about preserving what makes the communities unique as economic development and locally oriented forest businesses are pursued. Even though these techniques appear to have drawn participants who are demographically similar to those who attend traditional NEPA-oriented techniques, the study's results show that these people see public forests as contributing to community well-being and are willing and able to discuss management activities in this context, rather than as a contest between individual interests and political agendas. Because these meetings were part of our research design, not part of any formal national forest interactions with the local communities, it isn't possible to assess whether these are merely rhetorical statements or would indeed be important guiding principles in making planning and management decisions.

Study results show that different groups and techniques produce different types of information about the connection between community well-being and public forests. While this finding requires additional research, it seems to indicate that using community-oriented participation will require more strategic approaches when planning meetings. Land managers should have appropriate expectations about the type of input that will be generated from different types of groups. They may need to plan for information exchange and education between participants before input is requested and to incorporate a variety of techniques depending on what information is desired. The results indicate that different types of groups and participatory techniques will have different roles over time in the process of community-oriented participation.

Relative to Poisner's (1996) assessment of NEPA-oriented techniques, the three study techniques were successful in generating information about the values and beliefs underlying participants' positions on land management issues. Survey results indicate that respondents' beliefs about forests as ecological systems were the best predictor about their positions on management activities. Beliefs about which forest values should be protected also predicted management positions.

While this information is useful, the results from the two meeting techniques show that the survey did not incorporate important underlying values and oversimplified others. The importance of both local input to and benefits from forest management activities was highlighted in the two meeting techniques and was not part of the survey design. This emphasis on local communities working together with land management agencies to develop locally appropriate forest management that generates local benefits shows that these communities' goals are completely in keeping with the goals of these types of participatory approaches.

Another underlying concern not addressed in the survey relates to how management activities affect local access to public forest land. Meeting participants showed that they hold positions about a particular management activity that may have little to do with how they value the activity; their positions have more to do with whether they believe it will have an impact on their access to the forest.

Participants' perceptions of the complexity of managing for various forest values and uses were evident in discussions of multiple-use management and their varying support for purposes behind harvesting trees. Concern over letting one value or use dominate the forest management was evident. Those who considered logging appropriate varied in what they saw as acceptable management goals. Most evident was a concern that managing for pulp and paper production encouraged more intensive

management of short-rotation species over slower growing hardwoods, to the detriment of the forest. This goes beyond simple beliefs of whether clear-cutting is right or wrong.

As important to evaluating whether these techniques are moving toward more democratic, community-oriented processes are participants' own evaluations. Unsolicited comments about the techniques include:

This kind of meeting allows local people to be heard. Most Forest Service meetings are controlled by people who are better organized and have less local interest. Locals aren't as organized and don't have time for typical meetings. (Ironwood, focused conversation)

This kind of public input is excellent. I like this meeting. You feel more a part of it. (Iron River, dinner)

I applaud your efforts. This is a great survey; thanks for including me! (Iron River)

It seems that for some of the participants, these techniques are on the right track toward meaningful community-oriented participation in public forest management.

One final point that the results of this study speak to addresses the "local versus national" interests in federal land management. Community-oriented approaches to citizen participation are criticized because some feel there should be broader input about the management of nationally owned lands and that goals for national lands should not be based just on local concerns and benefits. Concerns are voiced that local communities value public forests primarily in terms of their economic benefit. While this issue will continue to be a part of the debate about public forest management for years to come, results from this study show that at least some community residents are neither parochial nor simplistic in their thinking about these forests. Participants in the study represent the full range of value orientations found nationally from "preservation" to "utilization." Many participants recognize that "good" forest management is much more complex than a single-use approach. Many are aware of the connections between their community's well-being and the condition of the forests around them. Many are ready to grapple with the difficult issue of the community good versus individual rights. This does not resolve the "national versus local" issue, but it indicates that the two may not be as far apart as the current debate would have us believe.

## **Conclusion**

Poisner (1996) provides criteria for evaluating participatory techniques from a democratic, community-oriented perspective as well as his evaluation of how well traditional NEPA-oriented techniques meet these criteria. Using a very basic operationalization of three of Poisner's criteria, this study evaluates whether three community-oriented techniques move participation in the direction being advocated by community development and public participation practitioners and scholars.

Study findings indicate that these techniques are on the right track. Much more work needs to be done, by communities and land managers working together and researchers in evaluating these types of processes, to know whether they ultimately contribute to community well-being and more sustainable management of public forest lands. The evaluation of traditional NEPA-oriented techniques shows a failing grade in

these respects. It is premature to provide any sweeping conclusions about these other approaches.

## Notes

1. The criteria not discussed in this article are: Do participants communicate in person, face to face; does the process involve citizens, as opposed to individuals hired to represent citizens; does the participation process encourage dialogue; and does the process inculcate civic virtue? Because all the techniques evaluated engage citizens directly, the second criterion does not apply to this study. The criteria related to face-to-face communication, deliberation, and civic virtue require a different literature review and in-depth treatment and will be discussed in a forthcoming article.
2. These two criteria are evaluated as part of the larger study (see note 3).
3. The communities were sampled equally, independent of population size, because they were the units of analysis for a study of community attachment. This study also required seasonal residents to be sampled as well year-round residents, which is why homeowners were chosen as the population from which to draw the sample (this was the best address source for seasonal residents). In most parts of the communities, the vast majority of homes are owner occupied, ranging from 80 to 94% in the townships and 70 to 89% in the incorporated cities (Geolytics, Inc. 1996–1998). This choice does eliminate a small but important component of the community from the sample. Using sampling methods that did not include seasonal residents would have eliminated an even larger percentage of the community's population since seasonal homes make up from 2% to 47% of the homes in these communities.
4. In spite of this modest return rate, we chose to stop with only two mailings for two reasons. First, because the technique would potentially be used by national forest managers, we know that a third full mailing of surveys would add substantial expense to the technique. Second, as we received returns, it was evident that many homeowners in the area were quite elderly; many lived in nursing homes or with family members in other areas. After receiving 37 returned surveys with apologies about being unable to fill out the survey, we concluded that a third mailing was not appropriate.
5. Initially, our sampling plan was to include several focused conversations in each community, covering a wide range of group types (forest resource oriented to socially oriented groups). Gaining access to community groups was far more difficult than anticipated. We contacted a total of 20 groups ranging from Kiwanis to local Audubon chapters, but several of these groups refused our request to meet with them. Ultimately, our sample was limited to a small number of groups. At minimum, focused conversations occurred with one resource-oriented group and one social group in each community.
6. Correlations, though a weaker statistical test, are a more appropriate test than regression because we are looking only for an association, not a predictive relationship between the variables. See Table 3 for a full listing of these management activities.
7. Because of space limitations, the results presented here focus only on how much of the overall variance in response to management activities is explained by underlying beliefs (the adjusted  $r^2$ ). A future discussion will address individual management activities that are explained by these belief statements.

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