

What We are Trying to Do

This study has two goals:

- Provide guidance to federal agencies and others to help them improve the practice of public participation in environmental assessment and decision making; and
- Advance understanding of public participation by assessing the state of knowledge and offering priorities for future research.

Like all NRC panels, we will draw on the expertise of panel members and on the research literature to help us achieve these goals. We intend that the workshop will be of great influence in shaping the recommendations we make regarding both the practice of public participation and the future of research in this field. We have invited two types of papers for the workshop. One type reviews the state of the science in areas that should underpin our understanding of public participation. The other type each reviews a family of cases of public participation. It is our hope that by juxtaposing reviews of current state of basic knowledge and of families of public participation cases, and by focused discussion of what we can learn from these reviews, we will be able to draw relatively robust conclusions both about practice and about what research is needed.

Propositions. To offer scientifically supported recommendations, we would like to be able to evaluate propositions about causal relationships of the form: “In contexts characterized by A and B conditions, public participation processes that are careful to do M and N usually lead to outcomes X and Y.” Such precision would be of immense value to developing “evidence based” practice and to guiding future research towards the most fruitful questions. However, the state of knowledge and the broad scope of our subject may not allow such precision. Neither agency guidance on public participation nor the research in the field is structured around a modest number of such propositions. Rather, a myriad of terms and concepts is deployed, perhaps reflecting the variety of objectives for public participation, the many contexts in which it occurs, and the various kinds of activities that fall under this term. There are advantages to this diversity, but it does pose a threat to the exercise we are undertaking. It will be easy to have our discussion and indeed our thinking drift across the complexity without ever achieving focus and developing a clear assessment of what is known about public participation.

To help us gain focus, we have reviewed research and federal agency guidance documents on how to implement public participation. One way to focus our discussions is on current guidance: which aspects of this guidance are supported by available research, which aspects are refuted, and which may be plausible but are untested empirically. (We have given authors of the case families a slightly different list of aspects of public participation, developed earlier based on the scholarly literature.) Although the guidance documents do not offer propositions of the type noted above, they do enumerate:

- the good *outcomes* that are hoped for from public participation, and
- the *practices* that are believed to yield these outcomes.

Research on public participation and the writings of practitioners add a third category:

- the *context* in which participation occurs.

Some testable propositions are implicit in the agency guidance documents. In researchers' terms, the hopes for public participation (outcomes) are dependent variables. The practices (things that are largely within the control of the agency) and the context (things that are largely out of the control of the agency) are independent variables.

The agency documents identify desired outcomes and good practices (Appendix A lists the documents consulted and the exact wording of guidance found there). From these documents, we have identified 8 "good" outcomes that agencies seek from public participation (see list on p. 4). Although we are aware of the debate among researchers about what might constitute a "good" outcome from a public participation process, or a "good" environmental decision, for the purpose of the workshop, we accept the goals articulated by agencies as worth examining.

The agency documents also identify recommended practices--elements of the public participation process that are, at least in part, under the control of the agency (see list). We recognize that some of the practices are seen as worthwhile in themselves. We would like to focus our examination of the evidence, however, on the question of whether these practices tend to produce the characteristics of a good outcome. We recognize that these practices do not have tight definitions. We hope that by examining the evidence it will be possible to come up with clearer definitions based on an understanding of which specific practices make a difference.

The agency guidance documents say relatively little about the context of public participation. Yet researchers and broadly experienced practitioners have argued that context matters immensely (though they do not always agree on the effects of particular contextual factors). The list on p. 4 identifies 7 conditions in the context of environmental decisions (that is, factors that agencies do not control) that are often proposed as creating difficulties for decision making and for public participation. These conditions may directly affect the chances of achieving good outcomes and/or may alter what constitutes good practice, depending on the context.

If the workshop took on the task of considering the relationships of 15 practices and 7 contextual factors to 8 outcomes, we would have to examine $15 \times 7 \times 8$, or 840 possible propositions about the extent to which certain factors bring about good outcomes. Obviously, this is overwhelming.

Some simplifications are possible. One is to treat all the outcomes as reflecting a single dimension indicating "better" or "worse" outcomes. There is some empirical support that the outcomes "hang together" (Beierle and Cayford 2002) in practice even if we can make theoretical distinctions among them. However, there are qualitative arguments suggesting the opposite, that good practice for an agency or practitioner might depend on the desired outcome (Bingham 2003). Another simplification is to consider the practices and context characteristics as on equal footing, rather than assuming that the effects of each practice vary with the context. That is, we might assume that a good practice always improves things, whatever the context, or that a difficult context always produces a worse outcome, regardless of the practices that are used.

If we begin our thinking with this oversimplified view, we would ask the same two questions about each of 22 variables (15 practices and 7 contextual variables):

- How strongly does this factor affect the outcome of a public participation process?
- How strong is the evidence regarding that effect?

We would then consider the complexities, but only if there is strong evidence that in fact a certain practice affects different outcomes in different ways, or that its effect depends on a contextual factor. We would ask:

- Are there factors that affect different outcomes in different ways?
- Are there process factors that produce noticeably better outcomes in some situations than in others?

For example, we could consider whether evidence is strong enough to support the conclusion of the EPA Science Advisory Board that strong funding and other support from the responsible agency (a process variable) is especially critical to success when complex scientific information is central to the decision (a context variable).

We also should consider whether our discussion of the case family and state of the science papers suggest additional variables, not on the current lists, that are important for the study.

Issues for Discussion. To achieve the workshop's goals of informing evidence-based practice, we must:

- Focus primarily on the papers that have been prepared to facilitate our discussion, each of which draws on multiple sources of evidence
- First evaluate what we know about each process and context variable,
 - Regarding its relationship to good outcomes overall
 - Regarding the strength of the evidence for that relationship
- Only then turn to more complex effects where
 - The effect of a process is different in different contexts
 - A process or context has an effect on some aspects of a good outcome but not others

If we can focus on these steps, we hope that this workshop will provide important insights that will help guide the future practice of public participation in environmental assessment and decision making.

References

Beierle, Thomas C and Jerry Cayford. 2002. *Democracy in Practice: Public Participation in Environmental Decisions*. Washington, D.C.: Resources for the Future.

Bingham Gail. 2003. "Forward" *The Promise and Performance of Environmental Conflict Resolution*. Rosemary O'Leary and Lisa B. Bingham, editors. Washington, D.C.: Resources for the Future.

U.S. Environmental Protection Agency. Science Advisory Board. 2001. "Improved Science-Based Environmental Stakeholder Processes: A Commentary by the EPA Science Advisory Board." U.S. Environmental Protection Agency, Science Advisory Board., Washington, D.C.

Public Participation Variables

Desired Outcomes (from agency guidance documents)

1. Better decisions
2. Increased agency understanding of the effects of various courses of action, including new alternatives
3. Fairer decisions
4. Increased trust and legitimacy
5. Improved public understanding of the issue
6. Reduced conflict
7. Reduced cost, less delay
8. Improved capacity of participants to engage effectively in governance

Process Characteristics (from agency guidance documents)

1. Starting public participation early in the analysis and decision making process
2. Having clearly defined purpose(s) for the public participation process with explicit statement about the agency(ies)' role and commitment to the process
3. Having a clearly defined timetable that meets decision-making requirements
4. Involving all the interested and affected parties in a manner acceptable to them
5. Acceptance by the participants of the process characteristics and ground rules
6. Making the process transparent to the broader public
7. Supporting the process with adequate resources
8. Providing accessible information on the full diversity of available science
9. Agreement among participants on how to share, test and apply relevant information
10. Establishing a mode of interaction with respect for differences among participants
11. Establishing a mode of interaction that assumes that decisions are not already settled but that important insights will emerge from the process
12. Using explicit criteria for a good decision in the deliberation, including all relevant statutes and regulations
13. Participants engage in process fully
14. Having the process accountable to the public and (if applicable) to those the participants represent
15. Allowing the process to influence decisions including explicit implementation mechanisms and feedback on how the process did or did not affect the decision

Contextual Factors (from research and practitioner literatures)

1. Pre-existing negative relationships (conflict, mistrust) or polarized positions among the parties, including agencies
2. High stakes or the presence of moral issues (e.g., harm to innocents, environmental injustice claims)
3. Mutually exclusive goals of different parties
4. Problem complexity (e.g., multiple connected issues)
5. Scientific difficulty (complex, highly uncertain, disputed science)
6. Social complexity (many parties; diffuse interests not well organized into groups; large geographic scale; presence of multiple jurisdictions or authorities)
7. Cultural heterogeneity