



SE0300387

Public Participation: Lessons from the Case Study Record

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Abstract

Public participation has received increasing attention in environmental policymaking world wide. Yet research has been inadequate to answer fundamental questions about how successful past programs have been, what factors lead to success, and where efforts to improve public involvement should focus.

To address these questions, we examine the case study record of public participation efforts in the United States over the last 30 years. We evaluate the success of numerous examples of public participation in environmental decision-making and identify the factors that lead to success. The paper deals with a number of themes, including:

- The extent to which participation can incorporate public values into decision-making, improve the substantive quality of decisions, reduce conflict, increase trust in institutions, and educate and inform the public;
- What can be expected from different approaches to public participation, such as public meetings, advisory committees, and mediation;
- The relative importance of the participatory process vs. the context in which participation takes place;
- Procedural features of particular importance; and
- The relationship between participation and implementation.

The paper provides general results that can be used to guide the improvement of public participation programs, support assessment of innovative methods, and advance the theoretical understanding of public participation.

Introduction

The role of public participation in environmental policymaking has led to much discussion in recent years, accompanied by some cheering, some hand-wringing, a great deal of speculation, and always a recognition of its growing importance. Over the past 30 years, participation has moved to center stage in the play of influences that determine how the environment will be protected and managed. In doing so, it has evolved considerably. Traditional public hearings and public comment procedures have been joined by a broad array of more intensive approaches to participation that emphasize face-to-face deliberation, problem-solving, and consensus building. Policy dialogues, stakeholder advisory committees, citizen juries, formal mediations, and a variety of other processes are now familiar components of the public participation mix. The amount of influence the public can wield has changed as well. In the United States, agreements made among interest groups in regulatory negotiations, for example, actually determine the content of proposed environmental regulations.

Describing how well public participation has performed in its central role in environmental policymaking is the goal of this paper. We report the principal results of an evaluation a large number of cases of public participation conducted in the United States over the last 30 years (Beierle and Cayford, 2001). The evaluation utilized data on 239 published case studies of public involvement in environmental decisionmaking. The thousands of cases where the public has become involved in environmental policy decisions over the last three decades have produced many hundreds of documents describing what happened in one case or another. We identified case studies from an extensive review of journals, books, dissertations, conference proceedings, and government reports.¹ We read and coded each case for over 100 attributes covering its context, process, and outcomes.

The criteria for the evaluation are five social goals that embody many of the hopes and aspirations for how increased involvement of the public can improve environmental decisionmaking (Beierle, 1999). They are:

- Incorporating public values into decisions,
- Increasing the substantive quality of decisions,
- Resolving conflict among competing interests,
- Building trust in institutions, and
- Educating and informing the public.

¹ We should note that these cases cover only part of what might be considered under a broad definition of “public participation.” We do not, for example examine voting, lobbying, citizen suits, market choices, protest, or other methods by which citizens can make their preferences known.

The research had two main objectives. First and foremost was to develop an understanding of the social value of public participation by evaluating cases against the social goals. The second objective was to understand what made some processes successful and others not. Of particular interest was how different approaches to public participation—from public hearings to formal mediations—differed in their accomplishments.

The analysis produced a positive view of public participation. As viewed through the case study record, most cases of public participation generated quality decisions in which public values and knowledge made important contributions. In most cases, participants were able to resolve conflict, increase trust, and increase their knowledge of the issues under discussion. The nature of the participatory process—from the type of approach to more subtle procedural features—played the largest role in determining success in achieving the social goals. The importance of process allowed us to develop an approach for project planning that starts with the justification for public participation, proceeds to the specific goals of the process, and ends with a consideration of specific process design features.

Evaluating Public Participation Case Studies

The larger study on which this paper is based sought to identify what public participation processes were accomplishing and to identify what factors led to success. In this paper, we describe the principal conclusions of the study. First, however, we briefly summarize the evaluation framework used in the larger study and its methodology.

The criteria for evaluating public participation efforts derived from the increasingly high expectations for what public participation can accomplish in the modern environmental management system. As participation has become more integral to the substance of environmental decision-making, it is also being called on to achieve a variety of social goals on which traditional approaches to decision-making have fallen short. These new expectations translate into five social goals which we use as criteria for evaluating public participation (Beierle, 1999).

The goal of *incorporating public values into decisions* is fundamental to democracy and has been the driving force behind challenges to a more managerial, expert-led model of decisionmaking. The risk perception and communication literature, for example, outlines dramatic differences in the way that the lay public and experts view risks (Slovic, 1992; NRC, 1996). Differences between experts and the public over values, assumptions, and preferences imply that direct participation by the public can better capture the public interest than can traditional bureaucratic processes alone.

The second goal, *increasing the substantive quality of decisions*, recognizes the public as a valuable source of knowledge and ideas for making decisions (Raffensperger, 1998; Fiorino, 1990; NRC, 1996). The public may improve the substantive quality of decisions in a number of ways, such as identifying relevant information, discovering mistakes, or generating alternative solutions that satisfy a wider range of interests.

The third goal is *resolving conflict among competing interests*. The environmental regulatory system in the U.S. was born of conflict between environmental and industrial interests, and conflict has persisted as the system has matured. Substantial amounts of money and energy have been consumed by court battles and other kinds of conflict while environmental problems are not being solved. One of the principal arguments for dispute resolution is that collaborative, rather than adversarial, decision-making is more likely to result in lasting and more satisfying decisions (Susskind and Cruikshank, 1987).

In addition to resolving conflict, public involvement can create opportunities for *building trust in institutions*. This fourth goal is based on the need to address the dramatic decline in public trust of government over the last thirty years (PRC, 1998; Ruckelshaus, 1996). It recognizes that such a loss of trust is a legitimate reaction to government mismanagement and that a healthy dose of skepticism is important for assuring government accountability. As trust in the institutions responsible for solving complex environmental problems decreases, however, the ability to solve those same problems is seriously limited. Research suggests that one of the few ways agencies can try to rebuild trust is through greater public involvement and influence over decision-making (Slovic, 1993; Schneider, et al., 1997).

The goal of *educating and informing the public* addresses the need to build capacity by increasing public understanding of environmental problems. Education here should be interpreted as something more than science lessons. It is a more fundamental education that integrates information about the problem at hand with participants' intuition, experience and local knowledge in order to develop shared understandings and a collective perception of solutions.

To gather information on how well public participation has met these five social goals, we collected data from a large body of case studies on public participation. We screened over 1800 case studies—drawn from journals, books, dissertations, conference proceedings, and government reports—and identified 239 cases with sufficient information to be included in the. Data from the cases were derived using a “case survey” methodology in which published case studies were read and coded for over 100 attributes (Lucas, 1974; Yin and Heald, 1975; Bullock and Tubbs, 1987; Larsson, 1993).²

Coded attributes covered a wide range of data on the cases. They were based on a conceptual model that looked at public participation as a combination of context,

² Each case was coded by one of three researchers, or by pairs of them. In order to ensure consistent coding among researchers, a process of inter-coder reliability testing and training was used. This involved pairs of researchers reading and coding the same subset of case studies independently, and then comparing codes. The standard required was that coders consistently achieve two-thirds agreement, a level of reliability regarded as satisfactory in the literature (Larsson, 1993). Around 10% of cases were used in this inter-coder reliability process, which is described in greater detail in Beierle and Cayford (2001, forthcoming).

process, and results. The three categories and their component elements are shown in Table 2-1.

Table 2-1: Conceptual Model of Public Participation

<u>CONTEXT</u>	<u>PROCESS</u>	<u>RESULTS</u>
1) Type of Issue <ul style="list-style-type: none"> • Policy vs. site-specific • Pollution vs. natural resource • Category of issue 2) Pre-existing Relationships <ul style="list-style-type: none"> • Conflict among public • Mistrust of government 3) Institutional factors <ul style="list-style-type: none"> • Level of government • Identity of agency • Policy complexity • Involvement of lead agency 	1) Type of Mechanism <ul style="list-style-type: none"> • Selection of participants • Type of participant • Type of output • Use of consensus 2) Variable Process Features <ul style="list-style-type: none"> • Responsiveness of lead agency • Motivation of participants • Quality of deliberation • Degree of public control 	1) Output <ul style="list-style-type: none"> • Among public • Between public and agency 2) Relationships <ul style="list-style-type: none"> • Knowledge 3) Capacity <ul style="list-style-type: none"> • Knowledge

The *context* category refers to features that a participatory process confronted, such as the type of issue under discussion, the pre-existing relationships among parties, and the institutional setting. The cases covered a wide variety of planning, management, and implementation efforts carried out by environmental and natural resource agencies at many levels of government. More than 80 percent of the cases dealt with decisions that were specific to a single site or geographic feature. Forty-four percent of the cases dealt with pollution-related issues and the rest concerned natural resources, such as wildlife, forests, mining, and agriculture. Relationships among parties ranged from congenial to openly hostile. In 55 percent of the cases, state and local agencies took the lead, and the federal government took the lead in most of the remaining cases.

The *process* category covered what actually happened. The most important feature of the process category was the type of process it was. Twenty-one percent of the cases involved public hearings, meetings, and workshops. Fifty-six percent of the cases concerned the work of advisory committees. (In about half the advisory committee cases, consensus was the principal decision rule, and in the other half, it was eschewed in favor of voting or the presentation of competing sets of recommendations.) The final 23 percent of cases dealt explicitly with negotiations and mediations. Across types of processes there was wide variation in the responsiveness of the lead agency, the motivation of the participants, the quality of

the deliberations among participants, and the degree of control that the public had over the process.

Context and process combined to produce a set of *results*. What we meant by “results” is probably broader than intuition would suggest. Of course, it included the specific output of the participatory process, such as a report. But results also meant changes in the relationships among parties to a decision, and increases in the public’s capacity to understand and resolve environmental problems.

It is to the *results* category that we applied the social goals as evaluation criteria. We measured success according to how well the participants in the process achieved the five social goals. Each case was assigned a score for each goal—usually low, medium, or high. Each score was also given one of three weight-of-evidence indices, ranging from “solid evidence” to “best informed guess.” (Data with the lowest weight of evidence were not used in the analysis.) The scores were accompanied by a written entry describing the attribute in qualitative terms.

The case survey approach is not new to the public participation literature (Berry, et al., 1984; Yin and Heald, 1975) but much refinement of the methodology comes out of the business and management literature (Jauch, et al., 1980; Mintzberg, et al., 1976; Larsson, 1993). Despite its appeal and track record, the case survey approach is still somewhat experimental, and accordingly there are a few important caveats to mention about the method and its application here. The quality of the data used in a case survey is only as good as the quality of the case studies from which the data come. Since different authors will report on different aspects of a process, there are inevitable data gaps, and no case had data for absolutely every attribute. (Throughout the rest of the paper, reported percentages need to be understood as relative to the total number of cases with relevant data.) Finally, there is always the threat that the sample is biased in some way. The analysis accounted for these problems somewhat by drawing on enough cases to overcome problems with data gaps, and also by dropping scores with the lowest weight-of-evidence index. An extensive analysis of bias is described in Beierle and Cayford (2001) where it was found that, although there is some selection bias toward successful cases, it does not change any of the major conclusions contained in this paper.

Results and Discussion

We present and discuss the results as a series of “lessons learned”:

Lesson 1. The majority of public participation cases were highly successful in achieving the social goals.

In the majority of cases in this study, public participation was not only making decisions more responsive to public values and more substantively robust, it was also helping to resolve conflict, build trust, and build public knowledge about the environment. Although the conclusions were not without important caveats, public

participation appeared to be meeting the challenges laid out for it by the modern environmental management system. Some of the results included:

- The public created or substantially changed decisions in 58% of the cases,
- Public input improved the ideas or information incorporated into decisions in 68% of cases,
- The process of participation resolved conflict in 61% of cases and increased trust in lead agencies in 45% of cases, and
- In 77% of cases, the process of participation significantly increased participant's understanding of the issues.

Lesson 2. More intensive participatory processes were most successful in achieving the social goals among participants, but not in engaging the wider public.

More intensive participatory processes—such as negotiations, mediations, and consensus-based advisory committees—were clearly more effective than less intensive processes at achieving the social goals, but only among the actual participants. The more intensive processes often succeeded in making decisions that were responsive to participants' values and more substantively robust; they were more likely to resolve conflict among participants, build trust between participants and agencies, and increase participants' knowledge about the environment.

However, more intensive processes were less successful than other forms of public participation—such as public meetings, hearings, and non-consensus advisory committees—in engaging or representing the wider public in decisionmaking. Participants in more intensive participatory processes were more likely to be socio-economically unrepresentative of the wider public. Efforts to draw wider public values into decisionmaking or provide educational outreach were more limited in more intensive processes. In many cases, participants in more intensive processes reached their goal of consensus partly by excluding certain parties and leaving out particularly contentious issues.

The findings suggest that different mechanisms should be selected to accomplish different things. That is, the choice of an approach to public participation has to consider not just how effective a group of participants can be, but also how broadly the benefits of participation need to be spread among the wider public.

Lesson 3. Regardless of the type of participatory process, three features—agency responsiveness, participant motivation, and the quality of deliberation—were consistently related to success.

Regardless of the overall type of process used, some specific features played a strong role in determining how successful participation will be. Cases were most successful when lead agencies were responsive, demonstrating active commitment to the process and fluid communication with its participants. The motivation of participants, encompassing the optimism and ambition they carried into the effort,

also played a large role in success. Finally, high quality deliberation among participants generally led to a successful process.

Lesson 4. Public participation was successful in even the most challenging decisionmaking contexts.

The context of participatory decision making had little direct influence on its ultimate success. Success was not consistently related to the type of issue under discussion, the pre-existing relationships among the parties involved, or the institutional context. The finding suggests that public participation, given the right kind of process, can be successful across all kinds of decisionmaking contexts.

Two interesting results did emerge regarding the role of pre-existing mistrust and conflict. First was that project planners appeared to be adapting processes to meet the challenges of these pre-existing relationships. Cases in which there was a history of conflict among interest groups or a high degree of mistrust of government were more often addressed with more intensive mechanism types, such as mediations.

Second, the pre-existing relationships appeared to play a much more important role in determining outcomes when the participation process was less intensive. There was a much greater likelihood that the relationships would remain unchanged over the course of a less intensive process than over the course of a more intensive one. This suggests that the less intensive processes were having much less influence in changing the pre-existing level of conflict, whether it was bad or good.

Lesson 5. There was only weak evidence linking good public participation to more effective implementation.

One of the most popular arguments for involving the public in decisionmaking is to make it easier to implement the decisions that were reached. However, we found only a tenuous link between good participation and implementation. Moreover, the link weakened as implementation progressed from changes in laws and policies to actual actions on the ground.

Public participation is clearly a part of the mix of what determines whether programs are implemented or not. But it is a complicated mix, and the degree to which public participation is an important ingredient may be small. A number of other factors affect implementation, and they are only indirectly related to participation at best. Persistent disagreement, avoided issues, excluded interests, the presence of formal programs, political involvement, and changing circumstances can all influence the path to implementation. The relationship between participation and implementation is a fertile field for additional research that examines the linkages between participation and the other political, social, and economic forces that influence how environmental policy gets made and acted upon.

Lesson 6. The design of public participation programs should follow a strategic process, starting with the rationale and goals for participation and then moving to design.

The analysis suggested a three-step process for designing public participation programs. The first step is asking whether there should be public participation at all. Analysts have identified three kinds of rationale for public participation (Fiorino, 1990; Perhac 1996). Each can be turned into a series of questions planners can use to identify why public participation might be needed:

- *Instrumental* rationale argue that public participation facilitates policy formation and implementation. Planners should ask whether resolving conflict, building trust, or developing “buy-in” through participation is required for making progress toward implementation.
- *Substantive* rationale argue that public participation leads to objectively superior decisions. Planners should ask whether the public is likely to bring valuable information, a deeper understanding, or creative thinking to bear in solving a particular problem.
- *Normative* rationale argue that public participation is both a right of citizens and a route to a more healthy civil society. Planners should ask, for example, whether the issue at hand one is one where traditional decision tools are not likely to capture the range of public values in play.

The second step involves identifying the specific goals of the participatory process. What do decisionmakers want to get out of public participation? What does the public want to get out of it? When a process is over, how will “success” be defined? Any process is going to have some specific goals, such as solving a particular problem or producing a set of recommendations. But some or all of the social goals discussed through out this paper are also likely to apply.

The third step is designing a process that meets the goals. This requires answering four questions:

- *Who should participate?* In most types of participation processes, planners will have to choose whether participants should be “average” citizens, representatives of interest groups, or both. While average citizens may be better at reflecting public values, representatives of interest groups often bring greater experience and capacity, as well as political influence that can smooth the path to implementation.
- *What type of engagement should there be?* Participation processes differ in whether they are for information-sharing or more active deliberation. Information sharing can be a good technique for identifying public knowledge about a particular issue, but is generally insufficient for achieving a wider range of goals. Deliberative processes are much more appealing for problem-solving and improving the quality of relationships among parties.
- *What kind of influence should the public have?* The amount of power agencies share with the public can varies widely across cases—from accepting public input, to asking for recommendations, to seeking agreements. Deciding on the right level of influence needs to consider how

much power sharing is necessary to motivate participants and overcome barriers created by mistrust.

- *How involved should a lead agency be in the process?* The degree of agency involvement is a balancing act between commitment and control. On the one hand, active involvement and commitment are quite important for a successful process, particularly as it relates to trust in the lead agency. On the other hand, too much control—to the extent that the public's ability to impact decisions is circumscribed—undermines successful participation.

The answers to these four questions will dictate what types of processes are most appropriate, whether it be a public meeting or a formal mediation. Project planners are likely to find that no single type of participatory process suits all of their needs. Fortunately mechanism types are not cast in stone—they are simply conglomerations of different design choices. They can be modified or combined in ways that can help meet all of the goals of the participatory effort.

Conclusion

This paper described what public participation can accomplish and what can make it successful. The lessons come from a systematic examination of the case study record. It is unlikely that resolving environmental problems is going to get any easier in the future or that the participation of the public will become any less prevalent. In that light, the findings of this report are, for the most part, good news. The picture of public participation that emerges is of a complex social process that, while often frustrating and time-consuming, is a potent tool for making good decisions and overcoming the contentious politics of environmental policymaking. Much further work is needed to fully understand the dynamics of the participatory process and its relationship to implementation and an improved environment, but this paper, and the research on which it is based, are steps in that direction.

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