Evaluating Dispute Resolution as an Approach to Public Participation

Thomas C. Beierle and Jerry Cayford

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Resources for the Future
1616 P Street, NW
Washington, D.C. 20036
Telephone: 202–328–5000
Fax: 202–939–3460
Internet: http://www.rff.org

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Abstract

Public participation has become an integral part of environmental policymaking. Dispute resolution—with its focus on deliberation, problem solving, and consensus seeking among a small group of people—is one of the alternatives decisionmakers increasingly turn to for involving the public. This paper evaluates dispute resolution as a form of public participation by measuring its success against five "social goals": incorporating public values into decisions, increasing the substantive quality of decisions, resolving conflict, building trust, and educating the public.

The data for the analysis come from a "case survey," in which researchers read and coded information on more than 100 attributes of 239 published case studies of public involvement in environmental decisionmaking. These cases describe a variety of planning, management, and implementation activities carried out by environmental and natural resource agencies at many levels of government.

The paper demonstrates that dispute resolution processes typically do much better than other forms of public participation in achieving social goals, but only among the small group of actual participants. The dispute resolution cases do far worse in extending the benefits of participation to the wider public. Many dispute resolution cases lack significant outreach, either to inform the wider public or to draw the wider public's values into decisionmaking. The benefits of conflict resolution or trust formation also often do not extend beyond a small group of participants.

The findings have normative implications for the desirability of dispute resolution in certain types of environmental decisions. They also have practical implications because the exclusion of the wider public from decisionmaking can come back to haunt project proponents in the implementation stage.

Key Words: dispute resolution; public participation; conflict resolution; evaluation

Contents

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Introduction

Over the past 30 years, public 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 more intensive approaches to participation. Loosely termed "dispute resolution," these processes emphasize face-to-face deliberation, problem solving, and consensus building among a relatively small group of participants selected to represent the wider public. The purpose of dispute resolution processes goes far beyond public participation's traditional role in ensuring a minimum level of government accountability. Dispute resolution is increasingly used as a strategy for improving the quality of decisions and dealing with the mistrust and conflict (and the resulting litigation) that are endemic to environmental policy.

In this paper, we evaluate dispute resolution as a method of public participation. Methods for engaging the public in decisionmaking range along a continuum from informal consultations with individual citizens to highly formalized processes of agreement seeking among organized nongovernmental interest groups. Dispute resolution lies at the more formal and intensive end of the spectrum. Examining dispute resolution as a form of public participation can provide insights not available from the more common practice of evaluating dispute resolution just as an alternative to litigation (Davies 2000).

To compare dispute resolution with other forms of public participation, we evaluate a large number of actual cases against a set of "social goals." These goals embody many of the expectations 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.

The comparison utilizes data on 239 published case studies of public involvement in environmental decisionmaking. The thousands of cases in which the public has become involved in environmental policy decisions over the past 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 more than 100 attributes covering its context, process, and outcomes. Using the social goals as measures of success, we sought to understand what participation accomplished and what determined success. The full results of the analysis are reported in Beierle and Cayford (2001).

In this paper we focus on one aspect of the larger study. We examine how the decision to use a particular type of participatory process—in this case, dispute resolution—relates to a case's success. Our definition of dispute resolution is similar to that provided by Bingham (1986): a "variety of approaches that allow the parties to meet face to face to reach a mutually acceptable resolution of the issues in a dispute or potentially controversial situation...[and] that involve some form of consensus building, joint problem solving, or negotiation." Included in the dispute resolution category are negotiations, mediations, policy dialogues, and other small group processes where participants are explicitly seeking consensus. We compare dispute resolution with less intensive processes, such as public meetings and hearings, public workshops, and advisory committees in which participants are not explicitly seeking consensus.

The comparison between dispute resolution and other forms of participation reveals an interesting tension: Dispute resolution cases are clearly more effective in achieving the social goals of public participation, but only among the small group of participants. Dispute resolution processes are much less effective in using outreach to spread the benefits of education and trust formation. Moreover, because participants in dispute-resolution processes are often not

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[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.

representative of the general public and often do little to foster broader public input into the participatory process, dispute-resolution processes seriously limit whose values are heard, whose conflicts are resolved, and whose priority issues are addressed.

The results suggest that using dispute resolution as a form of public participation entails a trade-off between success in achieving the social goals and the social significance of that achievement. Once the data have revealed this trade-off, it seems quite sensible. Limited goals are easier to achieve; larger ambitions can be expected to meet less definitive success but over a larger scale. There is no one simple formula for public participation that will be best in every situation.

We can infer some cautions for dispute resolution. In practical terms, the trade-off between success and significance means that decisions made through dispute resolution are sometimes revisited or rejected in the implementation phase when a broader set of actors and issues comes into play. In normative terms, the trade-off means that dispute resolution alone is often inadequate to make decisions on issues that engage broad public interests.

Evaluating Public Participation

The starting point for the evaluation of dispute resolution is a larger study by the authors on public participation in environmental decisionmaking (Beierle and Cayford 2001). The study sought to identify what public participation processes were accomplishing and to identify what factors led to success. One of the principal conclusions of the study was that the type of participation process utilized played a very large role in determining success. This paper explores that conclusion. First, however, we briefly summarize the evaluation framework used in the larger study, its methodology, and the conclusions that form the foundation of this paper.

The criteria for evaluating public participation efforts derive 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 decisionmaking, it is also being called on to achieve a variety of social goals on which traditional approaches to decisionmaking have fallen short. The range of social goals reflects the reality that public participation is expected not only to keep government accountable, but also to help agencies make good decisions, help resolve long-standing problems with conflict and mistrust, and build capacity for dealing with future problems. These new demands translate into five social goals, which we use as criteria for evaluating the public participation case studies (Beierle 1999).

The goal of *incorporating public values into decisions* is fundamental to democracy and has been the driving force behind challenges to more managerial, expert-led models of decisionmaking. The risk perception and communication literature, for example, outlines dramatic differences in the ways that lay citizens and experts view risks (Slovic 1992; Stern and Fineberg 1996). Differences 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; Stern and Fineberg 1996). Citizens can 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 United States was born of conflict between environmental and industrial interests, and conflict has persisted as the system has matured. Substantial amounts of money and energy are consumed by court battles and other kinds of conflict while environmental problems go unresolved. One of the principal arguments for dispute resolution is that collaborative decisionmaking is more likely than adversarial processes 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 past 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, their 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 decisionmaking (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.

In our study, we measured success according to how well the actual participants in the process achieved the five goals. If there were 10 participants, we examined how well conflict was resolved, for example, among those 10 people. If there were 100 participants, we examined how well conflict was resolved among this larger group, and so forth. But to understand the social significance of the achievement of the social goals, it is important to expand our vision beyond the actual participants—to ask how broadly the benefits of achieving the goals were distributed through society. Indeed, the social significance of meeting the goals largely depends on whether they are being met for only a small, select group of participants or for a broader swath of the affected public.

To gather information on how well public participation has met the social goals, we collected data from a large body of case studies on public participation. Researchers screened more than 1,800 case studies—drawn from journals, books, dissertations, conference proceedings, and government reports—and ultimately identified 239 cases for intensive study.[2] Data were derived from the case studies using a "case survey" methodology in which published case studies were read and coded for more than 100 attributes (Lucas 1974; Yin and Heald 1975; Bullock and Tubbs 1987; Larrson 1993).[3]

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[2] Case studies were screened based on the following criteria:

- dealt with public involvement in environmental decisionmaking, generally at the administrative level;

- occurred in the United States;

- occurred since 1970;

- had an identifiable lead (or otherwise interested) government agency;

- described a discrete mechanism (or set of mechanisms) used to engage the public;

- described participation of nongovernmental citizens other than regulated parties; and

- contained sufficient information on context, process, and outcomes.

[3] Each case was coded by one of three researchers, or by pairs of them. To ensure consistent coding among researchers, a process of intercoder reliability testing and training was used. This involved having pairs of researchers read and code the same subset of case studies independently, and then compare codes. The standard required was that coders consistently achieve two-thirds agreement, a level of reliability regarded as satisfactory in the literature (Larsson 1993). About 10% of cases were used in this intercoder reliability process, which is described in greater detail in Beierle and Cayford (2001).

Coded attributes covered the type of environmental issue discussed in the case, characteristics of the participants, important features of the participatory process, and the process' outcomes. Each attribute was assigned a score—usually low, medium, or high—based on a standard template. Each attribute score was 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.
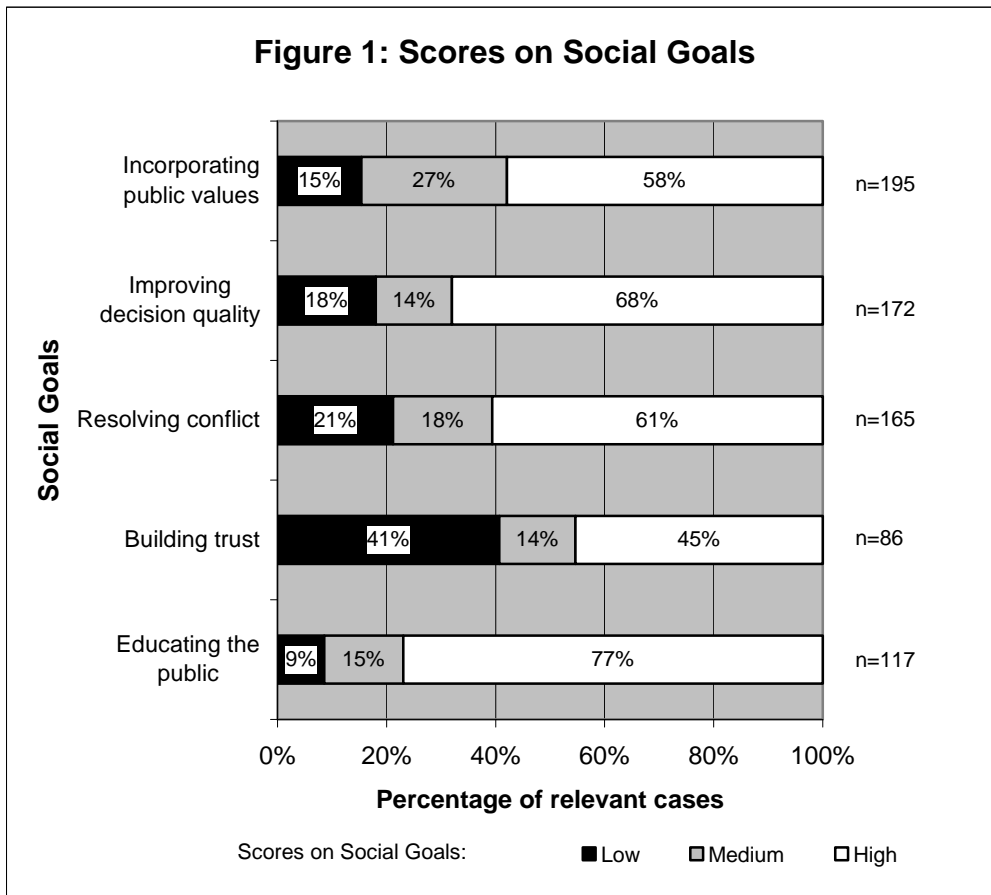
The 239 case studies covered a wide variety of planning, management, and implementation efforts carried out by environmental and natural resource agencies at many levels of government. Public participation processes described in the cases ranged from informal public meetings to intensive multiparty negotiations. All took place in the United States over the past 30 years.

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 from 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 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 was some bias toward successful cases, it did not change any of our major conclusions, including those contained in this paper.

Public Participation's Qualified Success

Figure 1 presents data from the case survey on the degree to which the social goals were achieved in all of the 239 cases.[4] As is apparent from the table, the results are much more positive than negative: For nearly all the goals, high-scoring cases made up more than half the cases coded. As a group, the cases performed best on educating participants and worst on building trust in agencies, with results for the values, decision quality, and conflict resolution goals falling in between. The results on the five social goals paint a very positive picture of public involvement in environmental decisionmaking, as seen through the case study record.

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[4] Not every case was coded for every goal. Each of the principal goals was coded for 86 cases (for building trust) to 195 cases (for incorporating public values into decisions), counting only those for which data were regarded as moderate to high quality. Ninety-five percent of the cases received scores for at least one social goal, and nearly 70% received scores for three or more.

Figure 1: Scores on Social Goals

Social Goals	Low	Medium	High	
Incorporating public values	15%	27%	58%	n=195
Improving decision quality	18%	14%	68%	n=172
Resolving conflict	21%	18%	61%	n=165
Building trust	41%	14%	45%	n=86
Educating the public	9%	15%	77%	n=117

Percentage of relevant cases

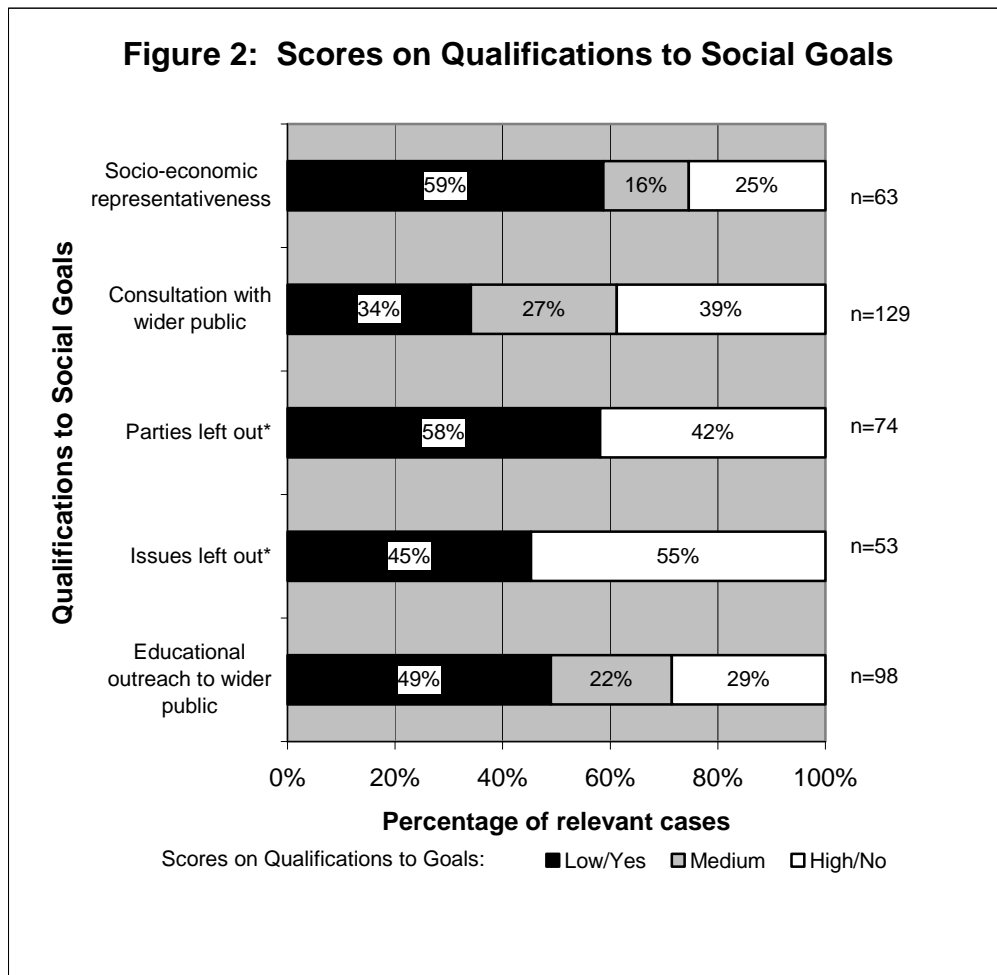Scores on Social Goals: ■ Low   ▨ Medium   ☐ High

Note: Percentages in rows are the percent of cases receiving the corresponding score (low, medium, or high). The total number of cases scored is signified by "n" at the right of each row.

The story could end here, with public participation demonstrating its capacity to achieve a number of desirable social goals. But how significant has that achievement actually been? That is, how broadly have the benefits of participation been felt among the public? We can expand the scope of analysis beyond the actual participants by considering a second set of evaluation criteria:

- socioeconomic representativeness;

- extent of consultation with the wider public;

- extent to which parties were left out of the process;

- extent to which issues were avoided during the process; and

- extent of educational outreach to the wider public.

As shown in Figure 2, this second set of evaluation criteria paint a much less positive picture. In only a quarter of cases were participants socioeconomically representative of the public they sought to represent. Perhaps more importantly, in fewer than half the cases was there any effort to consult the wider public outside the often small group of actual participants. Fewer than half of the cases included all the parties with an interest in a particular decision, and fewer than half dealt with all the relevant issues. Educational outreach to the wider public was successful in only about a quarter of the cases.

Figure 2: Scores on Qualifications to Social Goals

Notes:

1) Percentages in rows are the percent of cases receiving the corresponding score (low, medium, or high). The total number of cases scored is signified by "n" at the right of each row.

2) The scores for "Parties left out" and "Issues left out" were coded as yes/no, where "yes" corresponds to a low score and "no" corresponds to a high score.

The results in Figure 2 are significant qualifications to the results shown in Figure 1. Although nearly 60% of cases were successful in incorporating public values into decisions, in many cases the values being represented were those of a group of participants rather unlike the wider public. About 60% percent of the cases were also very successful in reducing conflict, but many did so by excluding certain parties or leaving particular issues off the table. Where cases were the most successful—in educating participants—limited outreach meant that little information made its way to the wider public. In 45% of cases, participants reported increased trust in lead agencies, but the lack of outreach meant that very little of this trust formation filtered out to the wider public, where widespread mistrust of government resides.

Dispute Resolution and the Significance of Success

The pattern of public participation's success—and the qualifications to that success—can largely be attributed to dispute resolution cases. Such cases were clearly better than other forms of public participation in achieving the social goals among participants, but clearly worse in engaging the wider public.

Before comparing the success of dispute resolution processes with those of other forms of participation, it is useful to describe each in greater detail. Roughly half the cases in the dataset can be described as dispute resolution cases. These included negotiations, mediations, and other consensus-based groups. In these cases, parties were either formulating agreements that bound their organizations to particular courses of action or recommending policies that they could all agree to support. Examples of dispute resolution cases in the dataset included the following:

- regulatory negotiations on a variety of topics, from reformulated gasoline to wood-burning stoves;

- mediations on the siting and operation of industrial facilities, hazardous waste cleanups, or habitat management plans;

- consensus-based resource management groups organizing around rivers or watersheds;

- policy dialogues on topics ranging from oyster harvesting in the Chesapeake Bay to broad national environmental policy goals; and

- advisory committees seeking consensus on the cleanup of Department of Energy facilities, requirements for facilities under the Environmental Protection Agency's regulatory flexibility programs, or risk priorities for states and counties.
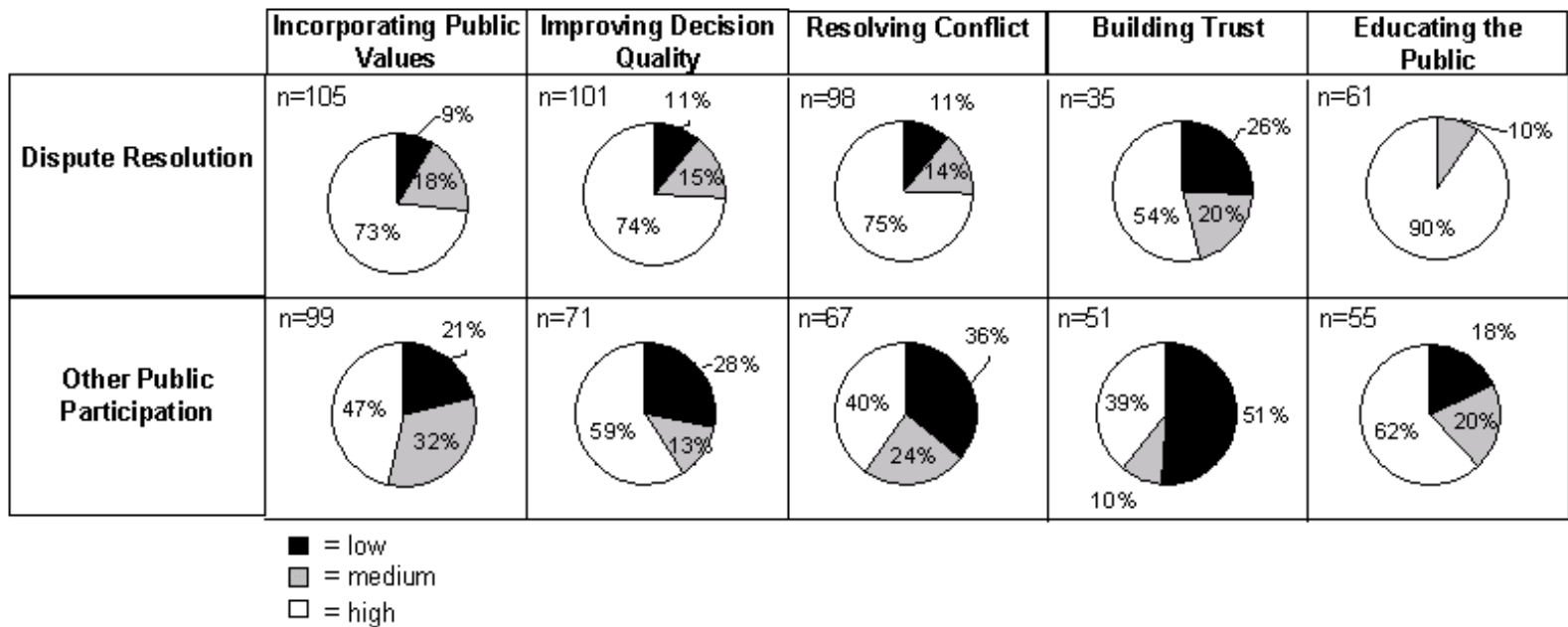
Roughly half the cases involved other, less intensive forms of participation. These included public consultations, public hearings and meetings, workshops, and nonconsensus advisory committees. Rather than seeking agreements among parties, these processes mainly involved information exchange. Agencies informed citizens about their activities, and citizens provided input and opinions on agency policy. Agencies were under an implicit obligation to review information from these processes, but in most cases there was little commitment to actually sharing significant decisionmaking authority with the public. Examples from the dataset included these cases:

- informal public consultations on transportation planning in Boulder, Colorado, and flood control near San Francisco;

- public hearings on Army Corps of Engineers projects, statewide water quality planning, and hunting and fishing policy;

- public workshops on coastal land management in Oregon and power plant siting in California; and

- advisory committees providing input on demand-side management policies for public utilities.

Figure 3 compares the success of dispute resolution processes with that of other forms of public participation. Across each of the five goals, a much higher percentage of dispute resolution cases were highly successful (that is, they scored "high" on the social goals).[5]

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[5] All the differences between the dispute resolution cases and those using other forms of participation are statistically significant using standard statistical tests. Statistical significance was determined using a chi-squared test. The significance of the differences between sets of cases was less than .05 for all but one of the goals; it was .054 for the trust formation goal.

Figure 3: Social Goals: Dispute Resolution vs. Other Forms of Public Participation

|	Incorporating Public Values	Improving Decision Quality	Resolving Conflict	Building Trust	Educating the Public
Dispute Resolution	n=105, 9%, 18%, 73%	n=101, 11%, 15%, 74%	n=98, 11%, 14%, 75%	n=35, 26%, 54%, 20%	n=61, 10%, 90%
Other Public Participation	n=99, 21%, 47%, 32%	n=71, 28%, 59%, 13%	n=67, 36%, 40%, 24%	n=51, 39%, 51%, 10%	n=55, 18%, 62%, 20%

■ = low
▨ = medium
□ = high

Note: Percentages in sections of the pie chart are the percent of cases receiving the corresponding score (low, medium, or high). The total number of cases scored is signified by "n" at the upper left of each pie chart.

The dispute resolution cases, however, performed more poorly on most of the measures concerned with engaging the wider public, as shown in Figure 4. Participants in dispute resolution processes were much less likely to be socioeconomically representative of the wider public. Perhaps more significantly, they were also much less likely to make an effort to seek input from the wider public through surveys, consultations, or supplementary public meetings. Educational outreach was also somewhat worse in the dispute resolution cases.[6] Outreach was particularly poor in a subset of dispute resolution cases involving negotiations and mediations; only 15% of the cases had any effective outreach. In some of these negotiations and mediations, outreach was actively discouraged to protect sensitive negotiations, but in most cases it simply wasn't considered important.

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[6] The differences between the dispute resolution cases and those using other forms of public participation were statistically significant (p<.05) for "socioeconomic representativeness" and "consultation with wider public" but not for "educational outreach to wider public." The difference between negotiation and mediation cases and all other forms of public participation on "educational outreach to wider public," however, was moderately statistically significant (p<.10).

Figure 4: Qualifications to Social Goals: Dispute Resolution vs. Other Forms of Public Participati
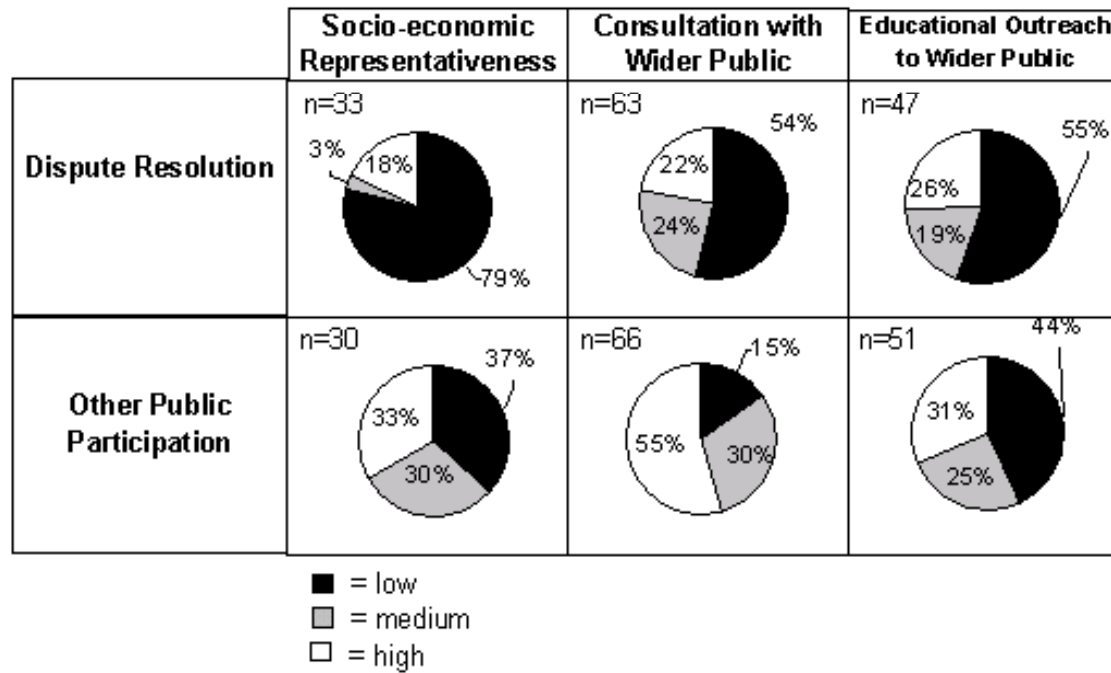
Note: Percentages in sections of the pie chart are the percent of cases receiving the corresponding score (low, medium, or high). The total number of cases scored is signified by "n" at the upper left of each pie chart.

The tendency of the public participation processes to resolve conflict by leaving out participants or ignoring issues (see Figure 2) characterized cases of dispute resolution as well. (There were too few data to tell whether the record was any better for the less intensive participation processes, but the open-access policies in many of them would suggest that it was better.) Finding consensus becomes far easier when all the parties to an agreement (or those still at the table when it is finally time to agree) already think alike, or when the issues on which they don't agree are tabled for future discussions. Indeed, the exclusion of certain groups, the departure of dissenting parties, or the avoidance of particular issues ultimately made consensus possible—or at least easier—in 36% of the 73 dispute resolution cases in which conflict was resolved. These account for three-quarters of the cases on which there is adequate information in the overall dataset.

Dispute Resolution's Virtues and Vices

Across the dispute resolution cases, the high degree of effectiveness in influencing decisions, resolving conflict, building trust, and educating a small group of participants often came at the expense of engaging the wider public, including all relevant parties, and tackling all relevant issues. Indeed, it is three of dispute resolution's virtues that lead to its vices.

First is dispute resolution's use of deliberation to identify common values, generate ideas, and solve problems. Intensive deliberations are feasible only among relatively small groups of people. Limiting participation to a small group entails a selection process. Whereas less intensive processes are often open to any interested individual or have relatively loose selection criteria, dispute resolution processes typically have much stricter and more exclusive processes for selecting participants.

The second issue has to do with who is selected to participate. The participants in dispute resolution cases are typically professional representatives of organized interest groups or other entities; they speak for the views of those they represent and make commitments on their behalf. These participants are far more likely to have experience in participatory processes, to be more technically trained in the issues at hand, and to have more experience in interest group politics. But there is a trade-off between capacity and representativeness. High-capacity nongovernmental actors are simply not like the average citizen in terms of income, education, type of employment, or other socioeconomic characteristics.

Finally, dispute resolution processes—much more than less intensive forms of public participation—seek to forge agreements, either on a set of recommendations for a lead agency or for actions that the participants themselves commit to take. The need to come to agreement, which usually translates into developing consensus, can lead to a number of characteristic problems. The tendency to exclude particularly conflictive actors or contentious issues has already been mentioned. But the need to seek consensus can also limit outreach. It has long been acknowledged in the negotiation literature that outside intervention—whether in the form of public pressure, press coverage, political involvement, or otherwise—can dramatically complicate the negotiating dynamic. There is pressure, then, to keep issues among the select few negotiators and out of the public view. Thus the need to forge an agreement through sensitive negotiations can be a barrier to getting information to the wider public.

Implications

Dispute resolution's trade-off of wider significance for narrower success has both normative and practical implications. On the normative side, project planners need to assess what kind of participation is most appropriate for a given decision. Whether to utilize an effective problem-solving group that sacrifices engagement of the wider public or a broadly representative process that may lack somewhat in capacity will largely depend on the goals of the public participation effort and the nature of the problem under discussion. Project planners need to ask, Does this issue involve a broad public interest or a relatively narrow set of private interests? Are problems with conflict or mistrust pervasive in a community or can they be dealt with through interaction among a handful of organized interest groups? Are there larger public values and interests at stake that can't be represented by a select few participants?

The implications of choosing dispute resolution are not just normative, however. Using dispute resolution inappropriately can come back to haunt projects in the implementation phase. Implementation opens the door to wider political forces, giving those not involved in decisionmaking an opportunity to make their views known and to support or thwart decisions made. Two case studies illustrate the point.

A classic case of a dispute resolution process that was internally effective but failed to garner the wider support necessary for implementation is the U.S. Environmental Protection Agency's (EPA) reformulated gasoline regulatory negotiation. The aim of the negotiation was to bring business, environmental, and public interest groups together with regulators to develop rules on the use of reformulated gasoline to reduce urban smog, pursuant to the 1990 Clean Air

Act Amendments. Even though many of the parties were traditional adversaries, over the course of the negotiations they were able to find creative solutions to their differences and agree on rules that were arguably more cost-effective and more satisfying to the range of interests involved than would have been likely otherwise (Weber 1998). However, the regulations ultimately generated a massive outcry from the people who would have to pay for them but were never consulted: the driving public. "An EPA hearing [in Milwaukee] resulted in the expression of tremendous anger by the consuming public against the regulation imposed by the national government. The general perception was that consumers were the victims of a rigged inside game that excluded the 'small guy,' leaving the American motoring public to foot the bill for urban smog" (Weber and Khademian 1997, 407).

The same pattern can play out at a more local level as well. Stout and Knuth (1994) describe a dispute resolution process convened to deal with deer management near Rochester, New York. The Citizen Task Force on Deer Management, made up of 11 stakeholders selected by the state conservation agency, reached consensus on recommendations for controlling deer populations. The group's recommendations—made with minimal outside input—were ultimately adopted by the state Department of Environmental Conservation. According to the case study author, the press conference at which the recommendations were presented drew protestors, and "before the plan was implemented, those opposed entered a court injunction which delayed implementation...Later, two households in support of the deer management plan were threatened by fake pipe bombs on their property" (62). Pipe bombs, fake or not, are undoubtedly good indications that broader conflict in the community was not resolved by the dispute resolution work of the task force.

Conclusion and Lessons Learned

The reformulated gas regulatory negotiation and the Citizen Task Force on Deer Management illustrate a larger pattern among cases of dispute resolution. Although dispute resolution approaches are clearly more effective for achieving the social goals of public participation, that achievement is often largely confined to the actual participants. Dispute resolution frequently succeeds in making decisions that are responsive to participants' values and substantively robust; it resolves conflict among participants, builds trust between participants and agencies, and increases participants' knowledge about the environment. Dispute resolution is less successful than other forms of public participation, however, in engaging the wider public. Participants in dispute resolution cases are more likely to be unrepresentative of those they are supposed to be representing. Efforts to draw wider public values into decisionmaking or provide

educational outreach are often more limited in dispute resolution cases. In many cases, participants in dispute resolution reach their goal of consensus partly by excluding certain parties and leaving out particularly contentious issues.

Whether to use dispute resolution as an approach to public participation, then, comes down not just to considerations of the effectiveness of participation or the competence of those who participate. It also concerns the significance of what is being accomplished. That is, those who would recommend the use of dispute resolution have to consider how broadly the benefits of participation need to be spread among the wider public and how broad the input from the wider public needs to be.

The conclusions of this paper lead to four lessons for those who design and run dispute resolution processes and those who evaluate them. The first lesson deals with the decision of whether to use dispute resolution in a particular case. Such a choice ought to depend on the nature of the issue under discussion and the specific objectives of the public participation effort. A partial list of criteria for deciding that dispute resolution is the appropriate form of public participation to use would include the following:

- the issues are complex enough to warrant a small group, deliberative process.

- the issues involve mostly private interests rather than a broader "public interest."

- accountable representatives of the private interests can be gathered together in a small group.

- implementation of the agreement depends mainly on the participants and the organizations they represent.

It may be that relatively few environmental issues share the criteria, which leads to a second lesson—and a challenge—for practitioners. In cases that don't meet the above criteria, dispute resolution may still be appropriate, but it should not be the only approach to public participation. The challenge for practitioners is to find ways to combine the problem-solving capabilities of dispute-resolution processes with the broad public involvement often found in less intensive participatory processes. One approach would be emphasizing the responsibility of participants in dispute resolution processes to communicate with, and be accountable to, their broader constituencies. But because much of the affected public may not be organized into formal constituencies, most situations probably require the combination of different forms of participation, so that participants in one process can analyze, and ideally ratify, decisions made by those in another.

The third lesson is more for evaluators than practitioners. It has to do with the scope of analysis. This paper has demonstrated the benefit of looking at dispute resolution not just as an alternative to litigation but as a form of public participation. By broadening the scope of evaluation, we can identify failings and opportunities that would otherwise not be visible. The examination of dispute resolution also needs to look not only at the actions of actual participants but also at who is not participating and how the benefits of the process extend, or not, to this larger group. Additionally, the examination needs to extend beyond the process itself and look at the extent to which agreements are actually implemented. Only by including the nonparticipating public and the record of implementation in the scope of analysis can we see how choices made in the dispute resolution process ultimately play out.

The final lesson hearkens back to the overall success of public participation. The various public participation processes can, and often do, achieve demonstrable benefits for environmental management. These benefits go beyond the traditional goal of accountability and even beyond the procedural benefits of introducing greater democracy into public decisionmaking. The benefits are precisely those that have eluded other, less participatory decisionmaking processes in the past: incorporating public values into decisionmaking, improving the quality of decisions, resolving conflict, building trust, and educating and informing the public. That some processes don't achieve these goals or that the benefits of achieving them do not extend broadly are not indictments of public participation writ large. They are merely challenges to think creatively about how to design and undertake effective participation efforts in the future.

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