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An Evaluation of Negotiated Rulemaking at the Environmental Protection Agency Phase I

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Introduction

This draft report presents the results of the first phase of research on the conduct of negotiated rulemaking by the Environmental Protection Agency. The subject of this phase is eight negotiated rulemakings undertaken by the Agency since the mid-1980s. Included in this study are seven negotiated rulemakings that were successfully concluded, six of which resulted in proposed or final rules and one for which a rule has not yet been finalized. Also included is one negotiated rulemaking that failed to result in a consensus proposal.

The following are brief descriptions of the negotiated rulemakings taken from summaries available in Agency and ACUS documents and information obtained from the interviews. By no means comprehensive, they merely provide some sense of the rules' subject matters.

Woodstoves. This rule is a new source performance standard for woodburning stoves, implementing part of section 111 of the Clean Air Act. It covers emissions from newly manufactured units. Work on the negotiation began in 1986 and the final rule was issued in 1988. In addition to setting emissions limits, respondents noted a number of other issues, including the means of limiting emissions and the testing procedures by which wood stoves would be certified as being in compliance with the standard. Several respondents indicated the the impact of the standard on the industry's smaller manufacturers was also a major concern.

Asbestos in Schools. This rule was developed under a mandate in the Asbestos Hazard Emergency Response Act of 1986 that required inspections and abatement of asbestos containing materials in school buildings. Work on the rule occurred and was completed in 1987. Completion of this rule required consideration of a number of issues. These included the definition of what constituted a school building; the conduct of inspections for asbestos; types of laboratory analysis required and laboratory equipment to be used; and record keeping, reporting, and the type of plans of action that school districts and independent schools would be required to develop and submit for approval.

Hazardous Waste (or Underground) Injection. This rule implements the prohibition on underground injection of hazardous wastes found in the Hazardous and Solid Waste Amendments of 1984 to the Resource Recovery and Conservation Act. The negotiating committee began work in 1986 but did not reach final consensus. The Agency did issue a final rule in 1988. Among the important issues considered during these negotiations were whether underground injection of wastes was to be allowed and, if so, under what conditions. In addition, the implementation of the "no migration" of waste policy was a major focus of attention during the rulemaking, particularly how this was to be defined and enforced.

Hazardous Waste Manifest. This rule was a response to a petition received by EPA from the Association of State and Territorial Solid Waste Management Officials requesting standardization and improvement of the then-current manifest system. The negotiating committee began work in 1992. To date, the rule has yet to be issued. The central issue in this rulemaking was the appropriate way to introduce uniformity into the manifest form used in the transport and in other activities related to hazardous wastes. Great variation in forms could be found across state jurisdictions and certain substantive policies, such as those dealing with returned of rejected wastes.

Minor Permit Modifications. EPA undertook this rule to revise the existing permit system governing minor modifications under the Resource Recovery and Conservation Act. The negotiating committee began work in 1986 and the Agency issued its final rule in 1986. The fundamental issues in this rulemaking were the types of modifications that would be considered "minor" and the procedures that would be required to obtain permission for such changes. Under the previous system, all changes, whatever their magnitude, were subject to a uniform process. In this case, the rule-making would have to balance speed and flexibility for inconsequential changes, with the right of the public to be informed and to participate in permit modifications.

Coke Ovens. This rule establishes national emission standards for coke oven batteries. The 1990 Clean Air Act Amendments required that the rule be issued by December 31, 1992. The negotiating committee began work in 1992 and published a proposed rule in 1992. The issues associated with this rulemaking are common to Clean Air regulations. They included the emission standards themselves, methods by which inspections of coke ovens and attendant facilities would be undertaken, and dates for compliance.

Fugitive Emissions. This rule was undertaken by EPA in an effort to determine if a new approach to emissions leaks from equipment was feasible under sections 111 and 112 of the Clean Air Act. The negotiating committee began work in 1989 and the final rule was issued in 1994. The committee considered both the types of volatile organic compounds that would be subject to leak standards and the types of equipment, such as pumps and valves, that were to be regulated. Also considered were testing requirements for different types of processes, monitoring techniques, permissable actions when leaks are found, and other dimensions of compliance and enforcement.

Clean Fuels. The 1990 Amendments to the Clean Air Act required regulations governing the use of reformulated and oxygenated fuels. A negotiating committee began work in 1991 and a final rule was issued in 1994. By any measure, this was a highly complex rulemaking, involving a large number of issues. In addition to setting basic standards for the use of these types of fuels, the negotiating committee had to deal with fuel availability, the seasonal and regional variations affecting the standards, the use of mathematical models to determine compliance, and whether compliance would be gauged using an averaging or a "gallon by gallon" principle. Several issues related to these fuels, notably the use of ethanol and NOX emissions, were not considered during the course of the negotiations, but rules covering them were issued

separately by the Agency. Considerable controversy attended these rules. While they were separate actions, they are frequently associated with this reg neg.

The second and concluding phase of our study will focus on eight comparable rules developed using techniques that do not include formal negotiation. The purpose is to compare the experience and performance of negotiated rulemaking reported below with more conventional methods for developing regulations.

Submission of draft reports in this manner is an alteration of our original plan. We initially proposed to submit a draft at this stage that presented preliminary findings from studies of both negotiated and conventional rulemakings. We altered this plan due to a combination of complications in the implementation of the original research design and time considerations facing ACUS. These are described below.

We assume those who will review and critique this draft report are familiar with the considerable literature devoted to negotiated rulemaking. We designed the research to provide insights into all its major aspects. The strengths of negotiated rulemaking were summarized by Philip Harter in his seminal article that appeared in the Georgetown Law Journal in 1982. He notes the value of direct and immediate participation in decision making, and of explicit and informed concurrence with the results, in contrast with the limited involvement through public comment or testimony at a public hearing that characterizes conventional rulemaking. There is an assumption of adversariness in conventional rulemaking that is thought to lead parties to use information defensively. Costs associated with defensive research are predicted to decline in negotiated rulemaking because its participants are thought to be less compelled to develop answers to the expected arguments of other participants who would be adversaries in conventional rulemaking. And, in conventional rulemaking, there are only limited opportunities for collective consideration of available information. Harter also argues that the parties in negotiation can focus on their true interests rather than take the extreme positions that are commonly advocated in conventional rulemaking. In addition, parties in reg negs are able, if not required, to rank order their concerns and to engage in bargaining and trading to maximize their respective interests. Time should also be saved because negotiations are expected to focus on practical and empirical concerns rather than theoretical problems and considerations that require the development of expensive and often irrelevant information. By its advocates reg neg has also been offered as a means to improve the quality of rules by facilitating the exchange of high quality information in a manner that allows critical analysis and full discussion by all affected parties. Further, when successful negotiated rulemaking produces a consensus that is used as the basis for proposed and final rules by the responsible agency, it should produce easier implementation and compliance, a lighter burden of enforcement and little or no litigation. These outcomes are expected to be achieved in part because of the increased legitimacy the rule is thought to enjoy in the eyes of reg neg participants.

Negotiated rulemaking has a number of critics, however, who focus on both its basic concepts and practical implications. Professor Susan Rose-Ackerman, writing recently in the Duke Law Journal, summarized the more theoretical objections that have been raised about the practice. She argues that there are three fundamental limitations on the process. First, it does not help parties acquire the technical or

scientific information needed; rather it clarifies the interests at stake and helps them to find a common ground. The former point would appear to be directly at odds with the information advantages envisioned by the advocates. Second, she argues that that reg neg cannot succeed unless "basic entitlements" are clear and participants can predict the actions the agency will take if no agreement occurs. This would appear, however, to serve as an incentive to those who agree with the predicted actions of the agency to derail negotiations if they appear headed in a different direction. Third, and most serious, she finds reg neg democratically illegitimate unless all interested parties are adequately represented. "Agreements only among the subset of interests who have organized advocates is not sufficient." She concludes that " . . a central role for reg neg in environmental policy-making seems ill-advised simply because the notion of interest representation on which the method is based does not apply to environmental issues." Our research design allowed exploration of these criticisms and our findings on them are included below.

On a more practical level, reg neg has been criticized for the burdens it places on the time and resources of participants. Those who focus on these issues argue that, however valuable it may be as a means of developing regulations, the various expenses associated with it will confine its use to only a tiny, perhaps insignificant, percentage of rulemakings.

Certain operational and evaluative dimensions of negotiated rulemaking have received less attention in the literature than the issues outlined above. Based on our reading we chose to focus on a number of these factors. The general criteria for the selection of rules for reg neg, the means to assemble a fully representative negotiating committee, the complex role of the sponsoring agency in the negotiations, the actual structure and process of negotiations, the performance of facilitators, the relative power of participants, timeliness, the actual impact of participation on those involved, quality of the resulting rules and overall assessments of the process deserve the additional scrutiny they were subjected to in this research.

Modifications of the Original Methodology

The methodology initially proposed was modified to adjust to circumstances that emerged during the course of the research that prevented full implementation of certain aspects of the original design. The major difficulties we encountered were in locating members of the negotiating committees whom we had chosen as part of our sample and scheduling the interviews. From the outset we knew that the interviews themselves would be burdensome and they did in fact take from sixty to ninety minutes to complete. Considerably more difficult, however, was locating participants in processes that occurred years ago, many of whom are now in new positions in different organizations. In at least one instance the location efforts were so unsucessful that the reg neg -- farmworker protection -- was dropped from the original list of nine, reducing it to the current eight.

Once located the participants selected for the sample were generally quite willing to cooperate in the study but another logistical complication quickly arose. Many, if not most, of the participants in reg negs currently occupy positions of

considerable responsibility. A session that could take up to ninety minutes was frequently difficult to schedule and it was not uncommon for the first appointment to be a week or more after the initial contact. Often, an interview, once scheduled, had to be postponed due to the respondent's more pressing business, creating considerable delays in the completion of interviews. Overall, however, the respondents were exceedingly generous with their time, and this part of the study could not have been completed without their assistance.

The passage of time became a pressing concern, given the fact that ACUS hoped to incorporate some of the results of this study in a report to the Congress on reauthorization of the Negotiated Rulemaking Act of 1990, due early in 1996. The longer it took to schedule and complete individual interviews, the longer the delay in commencing data entry, analysis and report preparation. These factors led to a decision to abandon further work on locating and interviewing additional reg neg participants and to temporarily drop our search for comparable conventional rules. Instead, we concentrated on completing the reg neg interviews we had begun, coding responses, entering the data into a data base, analyzing it, and preparing this draft report by July 31, 1995. This date was selected because it would give ACUS staff the opportunity to involve appropriate committees in review of the results of the first phase of research with sufficient time to incorporate their evaluations and any revisions into their report to the Congress. When ACUS review of the document is underway, phase two of the research will commence. The current plan is to finish phase two by the end of 1995.

The number of participants interviewed for most of the reg negs is smaller than we originally planned. We had intended to interview approximately twenty participants in each negotiated rulemaking. The actual average is approximately 13 with an overall total of 101 interviews. The number for each negotiated rulemaking is as follows:

Wood Stoves	7
Asbestos in Schools	16
Underground Injection	6
Hazardous Waste Manifest	19
RCRA Minor Permit Modification	10
Coke Oven Batteries	11
Fugitive Emissions	12
Clean Fuels	20

For each negotiated rulemaking a representative each of the major interests on each negotiating committee (e.g. the Agency, business, environmental groups) is part of the sample. Because this sampling approach established priorities for the location of the participants who were interviewed and completion of the interviews, we are confident that the general findings and tentative conclusions presented here would not be contradicted or otherwise significantly affected by the conduct of additional interviews.

We should also note that the overwhelming majority of our findings come directly from responses to questions asked during interviews. However, we have also

included a number of impressions and informed speculations, usually arising from unsolicited comments from respondents.

We now present our results and tentative conclusions, organized by the larger general topics discussed above.

Selecting Rules for Negotiation

The literature is quite explicit about the characteristics that might qualify a particular rule for development through negotiated rulemaking. Harter, in the article referred to above, provides a summary of the most important criteria. Countervailing power is deemed essential since a party able to achieve its goal without dealing with others will do so. This type of power can take many forms, ranging from the perception of influence with the responsible agency to the ability and willingness to challenge a rule in court. Harter argues that negotiations can accomodate only a limited number of interests. Eschewing any hard and fast rules on the size of negotiating groups, he set a "rough" limit of approximately 15 participants. He did acknowledge that somewhat larger groups could work, as well. The issues that are to be resolved through negotiation must be mature in that the positions of interests are clear and sufficient information exists to engage in full discussion. A decision must be inevitable, meaning that it is clear to all that, should the negotiation fail, the decision will be made, at a time certain, by other means. Issues, according to Harter, must also allow for tradeoffs and be such that "win/win" results are at least possible. This means that, among others, issues involving deeply held values are poor candidates for negotiation. Conversely, issues that can be resolved simply through better designed research procedures or more complete information are not appropriate for negotiation. Finally, it is important that the parties be confident that the results of a successful negotiation will in fact be implemented by the responsible public agency.

Some, but not all, of these factors emerged in our interviews. When asked why a particular rule was selected for development participants offered the following reasons most often. (It is important to note that this and all other questions were open-ended, meaning the respondents volunteered the reasons without prompting from the interviewers. Interviewers did, however, press respondents to clarify their comments whenever possible.)

Issues were simple/clear (12% of mentions)
Number of interests affected (9% of mentions)
High level of conflict over issues (9% of mentions)
Presence of a deadline or mandate (9% of mentions)
Best way to obtain views of affected interests (8% of mentions)
Avoid litigation (8% of mentions)
Affected parties known (7% of mentions)
Parties believed they would do better with reg neg than with conventional rulemaking (7% of mentions)
Issue was complex/controversial (7% of mentions)
EPA wanted it (6% of mentions)

There were other mentions, but none garnered more than 5% each.

The importance of a given factor varies across the reg negs. The most frequently cited reasons for each of the reg negs are:

Asbestos	High conflict (39% of mentions)
Wood Stoves	No particular reasons dominant
Coke Oven	Legislative deadline/mandate (46% of mentions); high conflict (38% of mentions)
Clean Fuels	Four reasons equally important: legislative deadline/ mandate; high conflict; avoid litigation; number of interests affected (together, 75% of all mentions)
Minor Permits	Simple, clear issue (35% of mentions); avoid litigation (25% of mentions)
Fugitive Emissions	No particular reasons dominant
Hazardous Waste Injection	No particular reasons dominant
Hazardous Waste Manifest	Simple, clear issue (60% of mentions)

Respondents, including Agency personnel, did not indicate that EPA used a strict, systematic process by which the criteria found in the law or literature were applied by EPA in the selection of rules. EPA respondents gave as many (or more) different reasons for selecting a rule for reg neg as other respondents did, and there was no clear modal or dominant response from the EPA respondents. For example, EPA respondents mentioned 14 different reasons, business gave 12 different reasons, environmental respondents gave 13, and state/local officials gave 12. The latter group showed the greatest pattern of concentration in their responses: of their 48 mentions, 13 mentions (27%) said the reason the rule was selected was because the issue was simple/clear, and 7 (15%) said it was the best way to get the views of affected interests. Thirty-eight percent of the environmental groups' mentions focused equally on the need to avoid litigation and the belief that people thought they would be better off with reg-neg than with a conventional rule.

When asked who supported the use of reg neg for the rule in question the most common response was EPA, identified by 44% of the respondents, with business interests a distant second, identified by 13.5% of those questioned. It is interesting to note that while the numbers are small, twice as many viewed business as favoring the use of reg neg than environmental and other non-business groups.

Respondents were asked to speculate why the party they identified as favoring reg neg actually took that position. The three most common reasons were:

The best way to get the views of all affected interests (24% of mentions)
Party felt they would get more from the reg neg than from conventional rulemaking (15% of mentions)
The desire/need to avoid litigation (11% of mentions)

When asked who opposed the use of regulatory negotiation the most common response was "no one, " offered by 55% of the respondents. Consistent with a previous observation, twice as many viewed environmental groups as likely to oppose the use of reg neg than business groups, but again the numbers are quite small, 15% and 8% respectively.

It is important to note that while outright opposition to the use of reg neg was relatively infrequent, we show below that reservations about the process were not. Participants with reservations, like those who opposed reg neg outright, were concerned about the demands of the process on their time and resources and about their ability to achieve a result as good or better than that they might get from conventional rulemaking.

Nothing in our research suggests that any of the criteria for selecting rules for reg neg stated in law or literature are irrelevant or inappropriate, but their importance appears to vary in each case. Obviously, EPA's role is central, particularly when it is pressured by a deadline, fears the consequences of litigation or sees a window of opportunity to resolve a long-standing problem or conflict. While the EPA Regulatory Negotiation Project staff was identified as a factor in the selection process, our questions did not specifically probe for their role. Hence, the significance of their role in the selection process cannot be determined by this study.

We should note that we encountered one issue that could be regarded as involving a "fundamental value", which the literature suggests would be inappropriate for negotiation. This may in fact be the case. The issue concerned the literal interpretation of a fundamental statutory term ("no migration") and it contributed to an impasse in the negotiation over underground injection.

The Decision to Participate

When asked whether it was easy or difficult to make the decision to participate 76% answered it was easy while 10% said it was difficult. The remaining 14% said their decision was mixed. Participation was an easy decision for those that had a great deal at stake, believed they had adequate resources and expertise, were attracted by an uncommon opportunity to influence policy, were curious about the process or were simply ordered to participate by their boss or membership. Participation was difficult for those with limited resources or a lack of familiarity, or mistrust, of the process. For example, 42% of environmental group respondents said the decision to participate was difficult, and 23% of business (size unknown) respondents also regarded the decision as difficult, compared to no one in other groups with enough respondents to make the percentage a reliable estimate.

The respondents offered a variety of reasons for why the decision to participate in the rulemaking was easy or hard but the most common reasons were the impact the rule in question would have on their organization (17% of mentions) and a desire to have an effect on the outcome of the rulemaking (15% of mentions).

These reasons varied significantly depending on the respondent's affiliation. The reasons most frequently mentioned by different types of respondents were:

Business respondents (size of business not known):
- Outcome would be worse with conventional rule (23% of mentions)
- Limited resources (18% of mentions)

Environmentalists' responses
- Limited resources (18% of mentions)
- Wanted to have an impact on the outcome (14% of mentions)
- Concerned about what others would do if respondent wasn't there (14% of mentions)

EPA respondents
- Ordered by boss (47% of mentions)

State/local respondents
- Been involved with the issue for a long time (20% of mentions)
- Interested in the process (16% of mentions)
- Wanted to have impact on the outcome (14% of mentions)

A review of the full body of participants calls into question the validity of the criticism that reg negs involve only highly organized and well-resourced interests. We found participation by small, seemingly ad hoc citizens groups, small businesses and local government representatives. These types of participants were not in the majority but neither were they rare. While undoubtedly imperfect surrogates for "ordinary citizens," the process was at least open to groups who complain about exclusion from other governmental processes. Data presented below will deal with the related, and important, question of whether these parties participated on a truly equal footing during the course of the negotiations.

It is interesting to note that there was wide variation in the amount of time in advance of the start of reg neg participants learned it would occur, ranging from a few weeks to well over a year. The most common response(43%) was three to six months before the start of the negotiations. Fourteen percent had more than 6 months, but 14% also had less than one month between the time they learned of the reg neg and its actual start.

Variation is also evident in the identity of the person or persons who initiated their involvement in the negotiated rulemaking but none are surprising. EPA (29% of mentions), the facilitator (11% of mentions), superiors in their organization (24%), members of their interest group or coalition (9%) and the participants themselves (16%), sometimes responding to a Federal Register notice, were the most common initiators. It is evident from the interviews that in some cases a particular organization, such as an environmental group, will contact a group with very different interests, such as a consumer group, and urge their involvement because they are likely to take the same general stance toward a common adversary, such as business.

In those cases when EPA was not the initiator of the participation, the Agency was frequently perceived as encouraging or otherwise supportive of the respondent's involvement. 65% of the respondents reported verbal encouragement from the Agency. EPA encouragement also included providing information of various sorts

needed to ease participation and financial support for some participants with limited or no resources available for this purpose. Thirteen percent report receiving monetary assistance from EPA, and the same percent reported receipt of information or data from EPA. However, of the 10 respondents who reported receiving monetary assistance from EPA, 7 were EPA officials themselves, 2 were state/local officials, and 1 was an environmental group representative. Better information on how EPA allocated its monetary support for participation in reg negs would probably be available in EPA's own accounts and policies; investigating those accounts and policies was beyond the scope of this study.

It is important to also note that there were several respondents (12%) who reported that they had to press the Agency to allow them to participate.

Documents uncovered in various dockets confirm that the Agency does not agree to all requests for inclusion on negotiating committees, usually arguing that the interest in question was adequately represented by another participant. We will refer below to a different situation in which negotiation of certain issues in a particular reg neg was suspended because the affected interest was not on the committee.

We have learned from documents provided by one respondent that the initial reg neg group is also used as a source of suggestions for additional participants. In at least one reg neg, wood stoves, the initial group was polled at the first meeting to determine if others should be represented. Suggested participants were voted on and those selected were approached by the Agency to become involved.

Representation of all appropriate interests is a controversial aspect of regulatory negotiation. When asked whether all the interests that should have been involved in the negotiated rulemaking were in fact involved, 65% of respondents answered that full representation was achieved. Correspondingly, 35% of respondents reported that an interest was missing. The three types of interests most frequently described as missing from the negotiations were environmental groups (20% of mentions), small business (15% of mentions) and unions (10% of mentions). The type of environmental groups most often described as missing were local rather than national organizations. When asked why these and other groups were missing, 43% would not speculate. Those who did cited a lack of money or time, resistance by EPA, and no interest on the part of the missing group in making a change in the status quo.

There are no significant differences among the individual reg negs in the perceptions of respondents regarding full representation or the identity of absent interests. Moreover, our multiple regression results below indicate that missing participants did not affect respondents' overall evaluation of the reg neg process, even when other variables were held constant.

There were also several references to a converse representational issue, that of interests who were included that did not need to be present at all, some whose participation was excessive given what they contributed to the proceedings, and others who were invited but who simply failed to attend. There were comments by some that a given group or organization participated but brought little information or insight to the process. The former parties were often perceived to have little directly at

stake and as pursuing a purely political agenda. Here the participant selection process could be criticized for being excessively inclusive, raising concerns about the efficiency and quality of subsequent negotiations. The latter parties were thought to lack resources or to be represented by someone else.

Returning to the question of the relative ease or difficulty of the decision to participate we uncovered a subtle participation issue that can, if not mitigated, harm smaller, poorly resourced interests. From the responses related to the decision to participate we clearly detect a fear that failure to participate would seriously damage their interests. They may prefer a conventional rulemaking because of the extraordinary commitment of time and effort participation in a reg neg requires. If they lack a realistic litigation option, and many do, the request that they become involved could be viewed as coercive. In effect, the "opportunity" to participate preempts these groups' resources unless they are somehow compensated or provided supplemental assistance during the reg neg.

Documents secured from EPA allowed us to determine the size of the formal negotiating committees. In general the number of formal participants is, with some exceptions, in line with the conventional wisdom that such groups operate best with 15 to 25 participants. The number of participants ranges from a low of 17 to a high of 31. The literature indicates that the number of participants can be expanded through the use of "caucuses" or "workgroups" that operate in support of, and report to, the authorized committee. Interviews indicate that these devices were used extensively. We note below the presence of observers in several reg negs.

Interviews indicate that other features of some reg negs will also expand participation. Certain large interests will secure one or more seats on the formal negotiating committee and rotate individuals according to their expertise in the particular matter under discussion. More that one participant described a situation where a certain interest was represented by "waves" of technical experts and attorneys. Others complained that, with only one person at a meeting, they could participate in just one subgroup, even though multiple subgroups worked simultaneously on several issues. This suggests a resource superiority that can translate into substantive advantages during the negotiations. Observers were also allowed at negotiation sessions and, depending on the ground rules, given permission to comment. At any one time, however, the formal negotiating committees appear to have operated with a fixed number of votes.

Another participation issue emerging from the interviews was EPA's willingness to commit, up front, to accept the results of negotiations and use them as the basis for their rule. This issue has been identified in the literature. In this study, the issue appeared to be most prominent in the clean fuels rulemaking, where it was reported that Agency attorneys were concerned about making such a commitment for a variety of reasons, including the Agency's obligation to hold a public hearing and respond to significant public comments that are received. There is no evidence that this factor affected parties in their decision to participate. No respondent volunteered concerns in this regard. On reflection, however, the issue of Agency participation in reg negs need not cause concern. EPA respondents reported regular consultations with senior managers regarding the acceptability of emerging agreements and in some instances

very senior Agency officials participated directly in the negotiations. We consider the Agency's management of post-negotiation public comment at length in a later section of this report and it appears to be a significant aspect of the reg neg process.

Important Features of the Negotiated Rulemaking Process

Learning

Participants generally report that they learned a great deal during the course of a negotiated rulemaking. Among the most frequently reported forms of learning were technical or scientific aspects of the rule (21% of mentions), the issues associated with the rule (11% of mentions), the positions of parties other than themselves and reasons why these positions were taken (30% of mentions), and how negotiation actually works (18% of mentions). New information about the specifics of reg neg, about how EPA works, and about the costs of compliance was also reported (each was about 5% of mentions). Others observed that they learned how complex rulemaking at EPA is, the tactics of the Agency and other interests, and they became more aware of the programmatic and policy initiatives underway at the Agency.

It is interesting to note that the most frequently cited source of what was learned was the other participants in the reg neg (45% of mentions), mentioned nearly four times as often as EPA.

Once again, this would appear to contradict criticism that reg neg does not help parties aquire the scientific and technical information they need to be effective in rulemaking. However, several respondents noted that the volume of information introduced during the reg neg, and its complexity, was very difficult to absorb. Below, we speak to the sources of the information and the perceptions of the participants about its adequacy and other qualitiative dimensions.

Ground Rules

When discussing how ground rules for the negotiation were established, participants pointed to the facilitators (41%), to negotiations among the participants (37%) and to EPA (21%) as the most common sources. When EPA was identified as the source, frequently participants were referring to ground rules used in earlier reg negs that had been adopted wholly or adapted to the reg neg in question. When negotiation among the participants was identified as the major source of ground rules participants frequently identified the facilitator as being involved. It is important to note that in a number of instances respondents did not recall ground rules being established at all and in others they reported they were not formalized.

It is important to note here that the Federal Advisory Committee Act requires publication of a notice for negotiating committees in the Federal Register. Such notices normally include information about the composition and purpose of the negotiating group; this information could be included in the term "ground rules."

Hence, however determined, each reg neg clearly had some form of explicit operating principles.

The ground rules most frequently mentioned by the participants were guidelines for the conduct of meetings (20%); how participation would actually occur (e.g. subgroups, full committee) (17%). Supporting the rule once it is promulgated, unanimity, giving all parties the chance to be heard, and no formal vote until a complete document is drafted each received about 10% of mentions. Surprisingly, explicit reference to deadlines as part of ground rules was rare. However, in response to different questions participants referred to time pressures as a major concern, suggesting strongly that deadlines were present. Also the FACA notices mentioned above routinely include a date by which the negotiating committee is expected to complete its work.

There does not appear to be any significant association between what the ground rules were and the frequency with which respondents noted that all, most, or none of the issues were settled.

In most cases participants understood the ground rules (93%) and noted they did not change signficantly during the course of the proceedings. Specifically, 44% reported no change and 52% noted only small changes in the rules, or no change in the rules--but changes in other things besides the rules.

Changes in ground rules did vary somewhat by rule. Changes were least prominent in woodstoves and clean fuels and greatest in coke ovens and underground injection. But in the latter cases respondents still report only minor alterations.

When ground rules did change during the course of the process the respondents reported the following reasons:

Changed as circumstances required (30% of mentions)
Changed because of new issues/coalitions/information (18% of mentions)
Changed because of trust developed within the committee (17% of mentions)
Insistence of EPA (10% of mentions)

From the interviews it is apparent that when those involved in a negotiated rulemaking become more familiar with one another and a level of trust develops, the ground rules become less important and informal discussions become more important and prominent. Of all the rules studied, increased trust and consequent changes in ground rules were reported most frequently by participants in the coke ovens negotiations. Specifically, 69% of coke oven mentions noted this, compared to 23% overall.

One criticism of ground rules is worthy of note. Several resondents complained that too much time was taken in developing consensus about what the ground rules would be, taking as many as two full working sessions to get them established. The conflict that started here apparently carried over into the substantive negotiations and the time loss cut into that available for more important matters. Given the tendency

toward increasing informality it would appear that a few fundamental principles should be sufficient to get the committee going, subject, of course, to modification and supplement as circumstances require.

Establishing the Issues

The issues to be decided during the course of a negotiated rulemaking comprise a crucial dimension of this process. The participants identified a predictably enormous range of issues that were to be resolved. We coded 258 different types of issues across the eight reg negs we studied.

When asked how the issues were established the respondents identified one or a combination of three sources. The most frequently mentioned was by negotiation among the participants (44%), by the statute the rule will implement (28%), and by EPA (24%). The facilitators are mentioned as establishing the issues just 4 times out of 133 responses.

From the interviews it appears that issues are usually not considered in a rigid, predetermined order. While the group may begin with a given issue, the discussions appear to take on a life of their own and there is a tendency to act on issues as they are identified and when it seems consensus is within reach.

Exactly 50% of respondents stated that, from their perspective, all the the issues that should have been negotiated in fact were. Thirty-six percent said that most of the issues were negotiated--they added there were just a few exceptions. Fourteen percent said explicitly that issues were left out. There is variation across the rules on this topic. Participants in the woodstoves and clean fuels reg negs reported non-negotiated issues most often. Specifically, 43% of responses in the woodstoves reg neg and 30% in the clean fuels rulemaking report that important issues were left out, compared to 14% overall.

As with the issues negotiated, there is no discernible pattern in the substance of the issues not negotiated. In one reg neg, the hazardous waste manifest, several respondents reported that two issues that were originally scheduled for negotiation were taken off the table because "the affected interests were not present." Why they were not included is not evident from the interviews. Reasons could vary from an inability to locate an appropriate representative, reluctance to join the negotiation or EPA's preference to deal with the interest and their issues on a bi-lateral basis.

Late "surprise" issues or post- reg neg events were frequently reported by the participants: 57% report a surprise issue, or surprise at a post-reg neg event. Surprise issues were reported most often by participants in the coke oven, clean fuels and hazardous waste manifest rules (80%, 69% and 74% of responses, respectively).

The most commonly stated reason for such circumstances was that a party was dissatisfied with some aspect of the negotiated rule, and took post-reg neg action (41%). The most prominent example of this kind of "surprise" post-reg neg "action" appears to have occurred in the clean fuels reg neg regarding the handling of the

ethanol issue. Other stated reasons for surprise issues are that the issue was deliberately sprung, postponed, or inadvertently overlooked (10-20% each). Overlooked issues are understandable in the course of a complex, multi-faceted negotiation during which the implications of a given agreement force consideration of unanticipated topics. No one should be surprised that some interests use the tactic of raising an issue, with a solution, as a deadline for the Committee approaches.

The deliberate postponement of difficult issues has both a logic and an inherent danger. If the group works together successfully on other, related issues, the greater is the likelihood that they will be able to reach agreement on the final and more difficult issues. Conversely, should these hard issues be held to the last minute, it is always possible they will prove intractable and the negotiation will ultimately fail. Even in these cases, however, the effort might be termed a success if the work, as a whole, yielded higher quality information, analysis and insights than would have occurred with conventional rulemaking. But, when the big issues are left to last and the deadlines approach, there is a greater likelihood that the compromise achieved under intense pressure may not reflect the full data and the best analysis and thus the full implications of the decision, leading to a lower quality rule. However, our multiple regression results below show that the presence or absence of a surprise issue has no independent impact on the respendent's overall evaluation of the reg neg process.

Not all issues generate conflict but those that do are the most important to the ultimate success of a negotiated rulemaking. Once again, the number and diversity of issues generating conflict defy generalization. One hundred eighty two contentious issues were identified by respondents

When asked about the contending parties in the conflicts, respondents reported line-ups that were anything but surprising. Business interests were in conflict with virtually all of the other types of participants at some point in the eight reg negs. EPA's position in this familiar alignment varied considerably according to the respondents, who viewed them as lining up with virtually every other interest at one time or another.

While these alignments are familiar, one observation might justify closer scrutiny. Within-group conflict was reported with some frequency. This is especially true of business, but it is certainly not confined to single industries with large and small players. For example, there was conflict among states. We speculate that, when within-group conflict corresponds to size differences, the concern, as with any policymaking, is that the large players will use their possibly superior resources, often in coalition with other interests (read: "strange bedfellows"), to disadvantage, if not destroy, the smaller players.

When asked how the identified conflicts were resolved, the respondents reported that nearly 80% of the issues were either successfully negotiated or resolved through the presentation of objective data and/or analysis. Of the remaining, 15% were reported as unresolved and in 7% of the cases the result was dictated by EPA. This reported level of conflict resolution is impressive but our data do not allow us to determine how the unresolved issues were ultimately disposed of. However, information presented below on the post-negotiation period may shed some light on this important matter. We should aiso note the substantial variation across the rules

regarding conflict resolution. There are statistically significant differences here, with full resolution of all issues reported most often in the cases of fugitive emissions (100% so report), asbestos in schools (91% of mentions) and coke ovens (92% of mentions) and least often in hazardous waste injection (33%) and hazardous waste manifest (50%). Hazardous waste injection was the lowest on this score, consistent with its fate as a failed reg neg.

It is interesting to note, and encouraging for the process, that in at least some instances the presentation of solid data or analysis was sufficient to resolve the conflict in question.

There is no reason to believe that reaching an agreement will be equally important to all participants, and the data from the interviews indicate that variation did occur. Most important here are the reasons why reaching agreement was perceived as being more important to some than to others. The reasons and the percentage of mentions for each are:

Impact of the rule on one's organization (34%)
Commitment to the reg neg process (21%)
Eliminate uncertainty (12%)

An obvious observation is that if one seeks a high commitment to achieving consensus, it is best to select participants for whom the stakes are very high. Those who view the rule as having modest or neglible effects on their organizations are perceived by reg neg participants as less interested in reaching a negotiated result.

One other reason is worthy of additional comment. Those who noted "commitment to the process" as the reason why reaching agreement was important underscore how the dynamics of the group can compete with the substance of issues as a factor in consensus building. Several noted that that the longer and harder the group worked, and the more they develop working or personal relationships with other participants, the more important a successful result became. Here, success is defined as an agreement the group could accept and present to the agency as either a proposed rule or a blueprint for the same. However, although we do not show the results, once other variables are held constant, multiple regression reveals that commitment to the process has no independent effect on the respondent's overall evaluation of the reg neg process, suggesting that commitment may be important for bringing closure to the process, but is neutral with respect to the overall evaluation of the process together with its substantive outcome.

Potential "groupthink" raises fundamental questions about the ultimate purpose of negotiated rulemaking. Is it merely the representation and satisfaction of the parties at the table or the production of a superior public policy product? The advocates of reg neg would answer these purposes are not mutually exclusive. The critics would argue that in reg neg these values will inevitably collide. This goes to the heart of a long-standing debate about the relative importance of politics versus other values, like efficiency or equality or effectiveness, in the formulation and implementation of public policy. This same, basic issue will figure prominently in several sections, including the conclusions, that follow.

Role of the Convenor/Facilitator

We note at the outset that neither the interviewers nor the respondents distinguished the convenor from the facilitator. We use the term "facilitator" to refer to both. Respondents reported that the facilitators did the following at the outset of the negotiations:

Set ground rules	24%
Got things started	20%
Trained the group	8%

The remaining responses cover a broad range that included establishing issues, providing unspecified information to the group, and establishing subgroups. There were a number of vague positive or neutral comments about the facilitator at this stage in the proceedings. Less than one percent of the responses to this question could be classified as negative.

Later, as the negotiations progressed, respondents observed facilitators involved in a number of activities. The most commonly reported were that he or she kept the process moving along (17%) and kept track of issues and their resolution (13%). Another 13% responded with a positive general comment about the facilitator (e.g., the facilitator was professional or patient). Individual responses contain interesting observations. Reference was made to "shuttle diplomacy" conducted by the facilitator between caucuses and less formal, ad hoc subgroups. Others noted the importance of keeping resolved issues closed, successfully resisting the urge of some in some committees to attempt to reopen an issue once consensus had been achieved. Most of the comments about the facilitators' activities during the conduct of the negotiations were positive. A small percentage (5%) were explicitly negative or implied the facilitator did little of value.

One hundred fifty-one responses described facilitator activities that promoted consensus. Actually, the most common response (17%) was that all of the work the facilitators did contributed to consensus. After that, the respondents most often cited the value of keeping the negotiations on track, monitoring issues and conducting the proceedings in a professional manner (11%, 11%, and 9% of responses, respectively).

The smaller number of responses (37) describing actions of the facilitators that caused or intensified conflict in the group cited a tendency to defer to EPA or some other member of the group as the most common shortcoming.

The preponderant majority of participants found facilitators to be competent (76%). Sixteen percent gave them mixed reviews and 6% found them to be incompetent. These results do not vary significantly across the rules.

A similar pattern of response was recorded when the participants were asked about the objectivity of the facilitators. Seventy-four percent reported they were not biased, 18% gave them a mixed evaluation on this dimension and 8% found them to

be biased. There is, however, a significant difference among the rules on this dimension.

The most common form of perceived bias was one that favored EPA which some attributed to an employer-employee relationship. It was noted in one interview that the facilitator presented a "straw man" proposal as his own when in fact it had been developed by the Agency. Another form of bias was suggested by the observation that a facilitator might purposely give opposing participants the impression of favoring their positions simply to develop a relationship of trust that could be called on when the facilitator attempted to promote a compromise.

Individual responses reveal the complexity and delicacy of the facilitator role and the choices the individual in this position will have to make during the course of a negotiation. When there were criticisms of the activities of the faciliators, they ranged from excessive passivity to excessive aggression in reaching consensus. Some complained that the facilitator allowed the proceedings to drift, leading to excessive or irrelevant discussion, exhausting precious time and resources. However, what might be perceived by some as drift and inaction could be a tactic to allow discussion to the point the parties will gladly engage in compromises that bring closure.

It is apparent from the interviews that the role of the facilitator varies significantly, both across and within negotiations. In some, the facilitator emerges as largely passive, assisting with logistics and administration but leaving the substance of the negotiations to the participants. In these cases it was sometimes reported that EPA officials stepped in to fill the vacuum and essentially directed the proceedings. In others, the facilitator is very clearly a critical player, establishing workgroups or caucuses, helping them set their agendas, tracking resolved and unresolved issues, performing "shuttle diplomacy" between contending interests and aggressively pushing for an overall consensus. In fact, some respondents questioned the zeal with which facilitators sought what they could characterize as a successful result and worried that quality in the rule and a true consensus might be sacrificed for a result people simply appeared willing to live with. We infer that the more aggressive a facilitator is in pushing resolution of an issue with a particular proposal, the greater the likelihood he or she will be perceived as biased. There is evidence for this inference: perceptions of the facilitator as clearly being unbiased were least likely when the respondent said the facilitator established the issues (60% saw no bias), provided information (50% saw no bias), acted as a go-between among groups (64% saw no bias), or deferred to EPA (44% saw no bias), compared to 74% overall who saw no bias.

The facilitator role can also vary over the course of an individual negotiation. The facilitator(s) may be very active at the outset of the negotiation training participants, setting ground rules and issue agendas and getting the discussions underway and then backing off, allowing the participants to reach consensus on their own without what might appear to be meddling or interference. In other cases the facilitator may play a very active role in the actual negotiations but only to the point that the most important issues have been isolated and the ultimate success of the reg neg hangs in the balance. This type of situation was reported by participants in the Clean Fuels negotiated rulemaking. In the final stage of those negotiations, facing a

deadline and several highly contentious issues with great potential impact, senior officials from EPA and from represented groups, such as industry, essentially took control of the proceedings and directed them to a successful conclusion.

The technical competence of the facilitator in the subject matter of the rule may be an issue. Without it the facilitator is at a disadvantage when suggesting a potential resolution to a dispute and may be suspected of bias when promoting a result supported by those in the group with the requisite information and expertise. On an operational level, the facilitator may also be less able to manage participation in the negotiations, especially that of parties who are incompetent technically or simply wrong. By the same token, the learning costs for many of the issues dealt with in these regulatory negotiations are not neglibible and time spent immersed in scientific and technical information is time unavailable for the many organizational and mediation tasks that facilitators are expected to perform. Clearly, the extent to which the facilitator understands the technical issues is an important issue that will affect all substantial reg negs. Facilitators with technical competence or with access to unquestionably objective expertise are an important element of this process.

Essential Information

When asked what type of information they needed to secure once the regulatory negotiation was underway the responses tracked quite closely those to the question about what they learned.

Technical/Scientific	33%
Positions of others	18%
Knowledge of issues	18%
Legal information	10%
Economic/cost	5%

It is interesting to note that only 6% of the respondents reported needing no additional information to participate in the reg neg. These data underscore the importance of technical and scientific information to the reg neg process and, because of this importance, justify a concern for equity should serious asymmetries in its availability or understanding occur. We should note, however, that in some reg negs the participants' need for technical/scientific information is not as great as in others. Specifically, the need for scientific and technical information was greatest in the clean fuels and coke ovens negotiations (50% and 57% respectively mention it) and least in minor permit modifications and hazardous waste manifest (less than 10% mention it in each). These differences are statistically significant.

The sources of the information used in the reg neg were:

Participants' own resources	29%
EPA	20%
Other participants	17%
Members of own coalition	14%

These responses suggest strongly that interests are variably situated in a negotiated rulemaking with regard to information. EPA and large organizations call upon their own resources or ones they can control. Less well endowed participants must frequently rely on the stronger participants for the information on which they base their decisions, although some participants did report obtaining funds from the Agency for research and consultants. The table below shows that relying on others for information varied considerably among participants. It was particularly characteristic of the environmentalists, but not so true of other possibly similarly situated participants, such as the suppliers of compliance services or labor. (The number of mentions from small business participants was too small for reliable percentage estimates.)

Source of information used in reg neg, by respondent affiliation

	% own resources (own + EPA for EPA)	% other parties+EPA (% other for EPA)	% own coalition	No. mentions
Big business	46%	23%	0%	13
Small business				5
Business	38	33	23	24
Environmental	13	40	23	30
EPA	57	24	5	21
State/local	30	27	10	60
Suppliers	35	31	19	26

In some instances (60% of mentions) necessary information did not become available during the course of the reg neg. Once again, technical and scientific information led the list (20% of mentions), followed by information about the positions being taken by others (13% of mentions) and economic or cost information (10%). However, nearly forty percent of the responses to this question indicated that no essential information was lacking. This suggests that the process does expose much, albeit not all, of the essential information for informed decision-making.

Participants reported the following reasons for the absence of information in those cases when it occured:

Known by some but not shared	31%
Too expensive to obtain	23%
Not available	20%

It should be noted here that, of those who reported the lack of information, 23% indicated that it was ultimately made available at some point in the negotiations.

From these data it does appear that the strategic withholding of key information, such as knowing it but not sharing it, thought to be common in conventional rule making, is perceived some participants (31%) to be an issue in reg neg as well.

When asked whether the information they did have was reliable, valid and timely respondents reported yes 74%, 75% and 67% of the time, respectively. Mixed reviews occurred 21%, 21% and 24% of the time, respectively. Outright negative responses were made by 4%, 3% and 8%, respectively. The lower marks for the timeliness are consistent with the observation above that missing information was made available, but late. There were no significant differences among the rules on these dimensions.

When reservations were reported about the quality of information, they were more likely to come from groups with limited resources than others. For example, environmental interests were most likely to report that they needed technical/scientific information that they didn't have (64% of their mentions referred to this, compared to about 25% for business--even small business--and 0% for EPA). The environmentalists are also least likely to report having all the information they needed (no environmental representative mentioned this compared to 70% of business mentions and 36% of EPA mentions). These differences are statistically significant. Moreover, perhaps as a result of that lack of information, environmental representatives are most likely to be skeptical of the reliability, validity, and timeliness of the information they did have; these differences are also statistically significant.

Another dimension of information not directly probed in the interviews emerged from comments volunteered by respondents. Several reported difficulty absorbing and understanding the implications of information that was offered during the course of the negotiated rulemaking. Others referred to a number of technical presentations that occurred simply to establish a minimal level of technical competence in the issue under consideration. In some of these cases the objectivity of the presenter was questioned.

This is a significant matter for a number of reasons. The intense education that surely occurs in reg neg can properly be viewed as an effort to mitigate the information asymmetry that critics of reg neg assume will persist with this technique. Still, observations of certain participants suggest that some participants will enjoy the powerful advantage of access to and control of superior information which, unless offset, will give them disproportionate control of the agenda relative to the control exercised by smaller, less well-informed, interests. There is a good case to be made that the role of information is as or more important in negotiated rulemaking than in its conventional counterpart due to the pressures created by deadlines and other aspects of the negotiation process. Hence, the problem of information asymmetry that figures so prominently in criticisms of governmental decision-making has been partially addressed in negotiated rulemaking but not completely eliminated.

The Context of Negotiation

The descriptive literature devoted to our subject led to an expectation that the interviews would identify multiple levels of negotiation occurring in a given reg neg. Indeed, the interviews reveal five types of negotiation, each of which may be crucial whatever outcome is achieved. The full committee, issue-based working subgroups, caucuses of coalitions of participants with similar or consonant interests, discussions

among the membership and/or hierarchy of a single interest or organizational participant, and completely informal, at times secret, negotiations between contending participants were all identified as important fora for the exploration and resolution of issues. However, their relative influence varied considerably as did participation in them by the various interests.

A number of general patterns emerge from the interviews. When the respondents were asked how decisions were made they responded in the following ways:

Full Committee only	16%
Subgroup only	18%
Subgroup to Full Committee	59%
Other	7%

There is variation across reg negs in this pattern. In coke ovens, decisions were made by subgroups alone--100% of mentions report this; and in minor permit modifications, nearly 50% (more than in any other reg neg) say decisions were made by the full committee alone.

When subgroups were used, they were comprised in the following ways:

Participant's option	45%
Expertise/Interest	42%
Attempt to balance interest	13%

Most subgroups were made up of persons interested in the same issue, no matter what their position on that issue (55% of responses); the other 45% were made up of persons on the same side of an issue. This was particularly true of woodstoves and coke ovens, where all mentions said that persons on the same side of an issue comprised a subgroup. By contrast, in asbestos and hazardous waste manifest, all or virtually all (92% and 100%, respectively) said that people with interests in the same issue--no matter what their position on the issue--comprised a subgroup.

The participants reported the following criteria as constituting consensus:

Unanimity	52%
Loose consensus (e.g. what people could live with)	36%

A large number of respondents did not recall formal votes. Some noted that unanimity would be presumed if there was no outright objection by a party. There was significant variation on this dimension across the rules, with a unanimity principle most prominent in coke ovens and clean fuels (100% and 72% of mentions, respectively) and loose consensus most commonly reported in asbestos in schools (73% of mentions).

Respondents were then asked to rank the contribution of the formal committee negotiation sessions to the proposed rule that emerged. They reported the following:

Major	68%
Moderate	17%
Minor	14%
None	1%

These aggregate results do not provide insights into the experiences of individual negotiations. Recall that we found instances in which the subgroups, be they caucuses or working groups, did virtually all the work (e.g., coke ovens) and the full committee served as a forum for ratification and general discussion that was sometimes characterized as useless political posturing. In other rules, most notably minor permit modifications, the full committee was clearly the critical decisionmaking unit.

The data do not explain why these general patterns emerge in a given reg neg, but certain variables are likely to be critical. The initial organization of the negotiation by the facilitator will certainly be influential in determining the relative importance of the different fora. Also, when workgroups are tasked with consideration of technical or scientific issues and development of proposals, they are likely to be the focus of decisionmaking, with the full committee acting as a ratifying body. Conversely, when the subgroups are caucuses of particular interests, the full committee is likely to be the place where the alternative and presumably contending proposals are discussed and compromises are explored. The same is likely to be true when issues of policy and politics, including who will bear the economic burden of a rule, are more prominent than questions that can be resolved with sound data and objective analysis.

It is clear from the data that there is an association between the composition of subgroups and how decisions are made. On one hand, when those with interests in the same issue (no matter what their position) make up a subgroup, respondents are unlikely to report that subgroups alone made actual decisions (just 10% so report); by contrast, when those on the same side of an issue make up subgroups, 41% report that subgroups alone made actual decisions. (Correspondingly, when subgroups reflect similar interests, 78% report that issues moved from the subgroup to the full committee for decision; when subgroups reflect similar sides, only 50% so report.) On the other hand, when subgroups reflect similar interests, 75% report that the formal negotiation sessions had a major impact on the proposed rule; when subgroups reflect similar sides, only 56% report that the formal negotiation sessions were a major contribution to the proposed rule. (Correspondingly, 28% report a minor role for the formal negotiation sessions when subgroups are made of similar sides, compared to 5% who report a minor role when subgroups are made of similar interests.)

Participants were also asked about their interactions with others outside of the full committee and established subgroups. The responses reveal a great deal of informal communication during the course of the reg neg. On average, each respondent reported two such contacts, with the most frequent being with other members of their own organization or coalition (32%), representatives of state and local government (11%), EPA (8%), and other, unspecified participants (8%).

They were then asked about the nature of the communications, and their responses were as follows:

Negotiations	43%
Strategy Sessions	10%
Informational Only	27%
Other	20%

For those characterized as negotiations, the participants were asked to identify both the issues and the parties involved. Once again, the number and diversity of issues was enormous. Similarly, there were many combinations of parties involved in the negotiations, both within and between coalitions and caucuses.

We then asked respondents what these informal negotiations did and did not accomplish, whether the results of the informal negotiations could be found in the rule, and the magnitude of the contribution they made to the ultimate results of the final reg neg. The results here are dramatic. Of the 82 responses to this particular question, only two stated that the informal negotiations accomplished nothing. The most frequently mentioned functions of informal communication were full or partial resolution of an issue in dispute (44% of responses), the ability to determine if the participant had the necessary support from his coalition or organization (18% of responses) and enhancement of information (35%). Fully 91% of the participants reported that some or all of the results of these informal communications and negotiations could be found in the rule that was developed.

Again, these aggregate data do not capture the patterns for individual reg negs and there were significant differences. The percentages of those reporting that informal negotiations had a major impact on the content of the proposed rule are as follows:

Asbestos	20%
Woodstoves	14%
Coke Ovens	91%
Clean Fuels	35%
Minor Permit Modification	43%
Fugitive Emissions	67%
Hazardous Waste Injection	16%
Hazardous Waste Manifest	0%

Several general observations about informal negotiations, sometimes called sidebar discussions or agreements, can be drawn from the interviews. Clearly, they are an inevitable and important part of a process that involves multiple interests with complex interrelationships and long, sometimes intense formal and semi-formal sessions. They can divert otherwise time consuming issues that affect only a subset of interests on a formal committee, workgroup or caucus to an ad hoc arrangement for resolution.

However, a small number of interviewees, probably less than 10%, also volunteered an expressed concern about these informal negotiations. One respondent believed that such a negotiation among major interests and EPA occurred before formal negotiations began and effectively "rigged" the reg neg from the start. Others expressed milder but still significant concerns that such negotiations were often held in secret and excluded certain affected parties. This raises the possibility that the results of the informal negotiation could be presented to a subgroup or the full committee as a proposal by one participant while in fact it has been previously agreed to by an influential bloc. Group dynamics at this point may make it difficult for the uninvolved interest to challenge or object. These types of issues prompted one respondent to recommend that sidebar agreements be allowed but fully revealed to the entire negotiating committee. This is commendable in principle but is likely to be either chilling or difficult to enforce.

Aspects of Participation

The relative power and influence of different types of participants is a central issue in negotiated rulemaking. Critics would argue that the principles of regulatory negotiation do little to offset the inherent advantages that certain interests enjoy in any rulemaking situation. Proponents point to the unanimity principle and the potential veto as powerful forces that level the playing field for all participants.

The exploration of this dimension of reg neg began with a question that asked repondents to describe the impact of their participation on the negotiations. The following summarizes the aggregate responses:

Contributions of Your Participation

Major	22%
Moderate	45%
Mod/Minor	17%
Minor	14%
None	1%

It is significant that 2/3 of the participants consider their contributions to the rule moderate or more, appearing to believe they had considerable influence over the result. The data for types of participants reveal that environmental and small business representatives are among the most likely to report that their participation had minor or no influence on the proposed rule; 41% and 33% so report this, compared to, say, 8% of general business participants, 4% of state government participants, and 18% of EPA respondents.

The participants were then asked whether they or others enjoyed disproportionate influence over the development of the rule; 27% of the participants answered in the affirmative. Another 48% noted that there was disproportionate participation by some but that this did not equate with influence. The remaining 25%

saw no evidence of such influence. The types of participants most likely to be identified as wielding disproportionate influence were:

EPA	26%
Business (including big business)	27%
Environmental	17%
State Agencies	11%

Given the fact that many state agencies or their national organizations involved in reg negs have environmental responsibilities and their frequently reported coalition activities with environmental groups, the perceptions of undue influence appear to be about evenly divided between EPA, business and environmental interests.

When asked about evidence of the alleged influence, 44 % stated that the content of the rule favored the interest in question; the rest did not cite a provision of the rule that indicated bias toward a given participant, but instead pointed to aspects of the process that could potentially result in disproportionate influence. Among the commonly cited aspects of the reg neg process that could lead to disproportionate influence was the strategic position EPA enjoyed in the process, disproportionate access to better information, or a more effective (or simply noisier) approach to negotiation (about 20% each of mentions). Also mentioned, but less frequently, were ingrained bias at EPA, more seats on the committee, and a higher likelihood that the interest in question would quit the negotiation or litigate after the fact.

There are no significant differences among the reg negs with regard to the occurrence of disproportionate influence but, when it is perceived, the identity of the interest does vary. There were, for example, significant differences between clean fuels, where the regulated businesses were viewed as having disproportionate influence (36% in clean fuels versus none in the other reg negs), and asbestos in schools, where consumers of compliance benefits (e.g., school personnel) were so identified (also 36% of mentions versus none in other reg negs).

Perceptions of disproportionate influence in the <u>content</u> of the rule also vary across reg negs. In the minor permit modification reg neg, no one mentioned that the content of the rule reflected the preferences of a party with disproportionate influence, making that reg neg different from the others. By contrast, the woodstoves and clean fuels reg neg had the greatest proportions of remarks saying that the content of the rule <u>did</u> reflect the preferences of a party with disproportionate influence (86% and 63%, respectively, compared to 45% overall). These differences, while substantial, are only marginally significant statistically.

These results indicate that the matter of differential influence is worthy of further study. Obviously, differential influence based on superior information that, in turn, leads to a better quality rule should cause less concern than influence based solely on inappropriate bias, political clout or threats to sue. Regarding the Agency, it would be unrealistic to expect that it behave merely as another participant given its legal obligation and familiarity with the entire regulatory apparatus. Further, there is no

question that some of the factors identified as the sources of disproportionate influence in negotiated rulemaking -- superior information, greater resources, bias or access to EPA -- would have a similar effect in conventional rulemaking. Nevertheless, having identified the factors viewed as promoting influence in the process, steps can be taken to determine which need to be addressed and/or mitigated during the planning phase of the negotiation.

From Negotiation to Proposed and Final Rule

During the course of the interviews it became evident that the products of negotiation sometimes require considerable additional work before they are published as a proposed or final rule. While the language that emerges from the negotiation may be incorporated verbatim into rule format, and be complete, more often EPA staff must fashion additional or refined rule language, and in at least one instance draft a regulation several hundred pages in length from a skeletal statement of principles developed by a negotiating committee.

When additional work must be done to transform the product of a negotiating committee into actual rule language the process is obviously crucial and highly delicate. Should the drafting inadvertently, or purposely, deviate from what the committee produced it calls into question the effort devoted to reaching consensus and, more important, the efficacy and integrity of the process.

Participants were asked to comment on the degree of difference between the agreement produced by the committee and the content of the proposed rule. They reported the following:

Major	5%
Moderate	17%
Minor	42%
None	35%

There are marginally significant differences among the reg negs on this dimension. Major or moderate differences were most likely to be reported in clean fuels and hazardous waste injection (47% and 33% of mentions, respectiveily) and least likely in hazardous waste manifest and woodstoves (in each, 100% of mentions report no or minor differences). The clean fuels rule was complicated by the issuance of separate but related rules governing NOX and ethanol; hazardous waste injection was a failed reg neg.

Participants were then asked about the differences between the proposed and final rule. Of those who could remember, 65% reported no significant differences between the proposed and final rule. The most notable exception among the cases was clean fuels, where 83% noted major differences between proposed and final, compared to no more than 33% in any other reg neg. The general trend in the data from interviews is the perception of little change. However, information presented below provides additional insights into the relationship between the products of the committees and the final rules as they appeared in the Federal Register.

It is important to learn why the reported changes occurred. So, the participants were asked the extent to which comments from the public or other forms of participation triggered by a notice of proposed rulemaking contributed to changes between the proposed and final rule. The following results report the perceived contribution of public participation to changes in the proposed rule:

Major	19%
Moderate	11%
Minor	37%
None	33%

Unfortunately, there are reasons to question the basis for these judgments. The negotiating committees' formal role in the consideration of public comments does not appear to be significant, probably because the committee by then is disbanded. While 38% of respondents referred to preparing comments on the proposed rule, few said they were involved in reviewing other comments and fashioning responses to them. Therefore, it is questionable whether the respondents had a full appreciation for the volume and content of public comment that the proposed rule actually generated.

Probing further, the respondents were asked to evaluate the contribution of their own participation to any differences between the proposed and final rule. Thirty-two percent of them indicated that they had a major or moderate impact on the change that occurred, but 53% stated they had no effect at all. When asked about the effects of the change on their organization, only 25% of those responding indicated the change helped them. The most frequent response, 58%, stated the change had no effect at all.

While, in EPA reg negs, the negotiating committees ceased to operate when an agreement was reached, it is very clear from the interviews many individual participants continued to devote time and effort to the rulemaking. Respondents were asked whether they communicated with anyone after the close of the public comment period about the rule and, if so, with whom and for what purpose and with what result. Eighty-six percent of the respondents indicated some form of post-proposal communication. These individuals communicated most often with EPA (29% of responses) and others in their organization (17% of responses). The most frequent reasons for such communication were to provide or obtain information about some element of the rule (72% of responses), to try to effect a change in the final rule (20%) or to plan strategy for the post-rulemaking period (9%). Only 25% of the respondents reported that their post-proposal communications resulted in a change in the rule.

Post-proposal communications did not differ significantly among the individual reg negs; however, small business participants were the most likely to report no post-proposal communications (50% so report), and the environmental respondents were among the least likely (0% report no post-proposal communications). These differences are statistically significant.

The responses to these questions reveal a very active post-negotiation period in which participants communicate with the Agency, members of their own organization and coalition and with a variety of other parties. In addition to simply

staying informed and keeping others apprised of the status of the rule, some participants are attempting to influence the rule after the formal negotiations have ceased and some report success in this regard. The term "lobbying" was explicitly used by at least one respondent when describing these activities. While a majority of respondents (58%) report no or only minor effort to produce the final rule from the proposal, a substantial minority report moderate or major effort. The effort expended included the filing of comments on the proposal (37% of mentions), conferring with members of their coalition (23% of mentions), EPA (21%) and other participants (9%) in the reg neg. A small number, 10%, reported actively working to resolve a still-outstanding issue.

The level of effort invested to produce the final rule from the proposed rule varied significantly among reg negs; the following percentages of respondents in each case reported it to be major or moderate:

Asbestos	57%
Woodstoves	14%
Coke Ovens	55%
Clean Fuels	69%
Minor Permit Modification	20%
Fugitive Emissions	17%
Hazardous Waste Injection	50%
Hazardous Waste Manifest	0%

There is no readily discernible pattern here (although clean fuels shows the greatest post-proposal effort and there is no final rule for hazardous waste manifest). There is also significant variation in post-proposal effort among different types of respondents. For example, small business and environmental respondents are the most likely to report no or minor post-proposal activity (100% and 70%, respectively, so report), while big business and EPA respondents are the least likely to report no or minor post-proposal activity (16% and 30% respectively). Conversely, EPA and big business are among the most likely to report major or moderate post-proposal effort (70% and 80%, respectively, compared to 43% overall).

There is variation across reg negs in the purpose of post -proposal activity. For example, the clean fuels reg neg produced the highest percentage of reports (41%) that the purpose of their post-proposal communications was to influence the final rule; this compares to the 0-5% who report this purpose in the coke oven and hazardous waste injection reg negs, where post proposal activity was mostly informational. Moreover, the clean fuels reg neg was most likely to elicit reports that post proposal communications produced some change (either major or minor) in the final rule (62% of reports for clean fuels versus 0-25% of reports in the other reg negs).

The status of the negotiating committee after a consensus is reached, during the development of the actual proposal and the final rule, is an important issue. Communications with EPA staff who reviewed an earlier draft of this report have clarified the post-proposal status of the committees somewhat. Language in EPA appropriations statutes prohibits the Agency from funding "intervenors" in Agency proceedings. This has been interpreted to apply to activities by participants in reg

negs after the notice of proposed rulemaking is published in the Federal Register. Hence, the committee formally ceases to function once the proposal is issued. But EPA staff report that informal means are used to provide advance copies of the final rule language, with the preamble that contains summaries of public comments, to negotiating committee members for review, with the expectation that members with concerns will communicate with the Agency. It was not possible to determine the nature, frequency, or results of such communications, or whether they were simple bilateral conversations with the Agency or true multi-party negotiations. If the committee effectively ceases to function at this stage then patterns thought to characterize conventional rulemaking may emerge during the important period between the committee agreement and the proposed rule, and between the proposed rule and publication of the final rule. Well-resourced interests may once again find themselves in a superior position due to their ability to monitor, communicate and influence the Agency as important, last minute additions, deletions and refinements are being made. For example, as we reported above, small business and environmental representatives are the most likely to report no or minor post proposal effort (70%-100% of reports), while big business and EPA are the least likely to report no or minor post proposal effort (16%-30%).

Further, knowing that the committee will not formally participate in the full rulemaking process may alter the behavior of some interests during the negotiations, especially if they believe the post-proposal (or post-committee) process presents better opportunities to secure what they wish to achieve. It is also possible that nonparticipants in the reg neg could use the post-proposal comment period and public hearings as vehicles for securing change in the rule or principles agreed to by the negotiating committee. For example, we showed above that the clean fuels reg neg elicited the fewest reports of no or minor post proposal efforts (31% so report), while hazardous waste manifest was most likely to elicit such reports (100% report no post proposal activity).

As we will document shortly, proposed rules based on reg negs attract considerable public comment. As we also document below, the types of communication that occur during the post-proposal phase of reg negs closely resembles that which allegedly characterizes conventional rulemaking. This volume of post proposal communication activity implies that reg neg fails to produce the collective, full and critical exploration of data, analyses and positions offered by all participants that advocates of reg neg consider so important to improving the quality and acceptability of rules.

Data included above summarize the perceptions of the participants regarding the amount of change that occurred between the proposed and final rule. To supplement these results, the preambles of the final rules based on reg negs were reviewed in an effort to determine how the Agency described the changes they made to produce the final rule.

There is no need to detail all the specific technical changes but the overall assessment is that the post-proposal period produced changes, some substantial, in the proposed rules based on the negotiations. EPA reported a "relatively small" number of changes in the asbestos in schools regulation due to public comment

received. (In this and other rules it would be purely subjective on our part to characterize the reported changes as "major" or "minor.") The changes related to certain key definitions and inspections protocols. In the case of minor permit modifications, public comments led to changes in classification procedures, timeframes for Agency decisions, the start of public notice periods, and the status of facilities. The preamble of the final wood stoves rule included a summary of a comment questioning the validity of the reg neg due to a bias on the committee in favor of catalytic converter technology. Changes due to public comment received includes the rule's applicability to various types of devices, the role of the manufacturers of wood stoves in certification testing, and laboratory accreditation. The clean fuels rule attracted a large amount of public comment and the preamble indicates numerous changes were made by the Agency in response to them. Finally, in the hyazardous waste injection rule, comment persuaded the Agency to modify a key pollution reduction standard and to eliminate the calculation of a safety factor.

Public comment on proposed rules is a potentially rich source of information regarding the perceptions of affected parties, both in and out of the formal negotiation committee, regarding the quality of what the reg neg produced. Summaries of comments in a rule preamble are a useful but incomplete source of information on the full substance of comment, although they do help to identify actions the agency took in response. Accordingly, the dockets of the proposed and final rules associated with the reg negs were reviewed to determine the volume of public comments and related communications that were received and a random sample of 10-11 comments on each rule were read for content. The results are interesting and potentially significant, so they will be reviewed in detail.

The wood stoves rule attracted 180 items of communication and 95 conversations between EPA and outside parties prior to the start of the reg neg. EPA received 71 comments and had six external conversations on the proposed rule. Of the ten comments reviewed, two offered unqualified support while the remaining eight expressed outright opposition to some element of the rule or requested a change. No commenter suggested they had been unfairly excluded from the negotiation.

The clean fuels rule stimulated 33 communications with or from external parties prior to the start of the reg neg and 322 pieces of correspondence, formal comments and additional items, including hearing testimony, on the proposed rule. Of the 10 comments reviewed, seven expressed opposition to one or more elements of the rule. The others could be characterized as neutral or largely positive. No comment indicated an affected interest was excluded from the negotiations.

The fugitive emissions rule prompted 1 public comment before the reg neg and 45 comments on the proposed rule. Eleven public comments on the proposed rule were reviewed. One declined comment on the fugitive emissions section of the rule, apparently because the company involved was a member of the negotiating committee. Three comments expressed general support for the rule and recommended a number of changes. Two expressed objections or serious reservations about the rule and suggested changes. The rest merely made recommendations for changes. None of the commenters complained that they had been excluded from the negotiations.

The coke oven rule generated 81 comments, pieces of correspondence or conversations prior to or during the period of the reg neg and 66 comments after the reg neg was completed. Nine of the 10 comments reviewed were from environmental groups or private citizens, and all opposed the rule. One comment submitted jointly by two major industry interest groups, a national environmental group, a national association of air pollution control officers and a national union, several of whom were involved in the reg neg, expressed strong support for the rule. Once again, no commenter suggesed that they had been inappropriately excluded from the negotiation.

The hazardous waste injection proposed rule, issued after a suspended regulatory negotiation, generated 55 public comments. All comments requested changes in the rule and ranged in general tone from very supportive to strong opposition. Support was found in comments from affected industies while the stongest opposition was voiced by the Natural Resources Defense Council, a member of the suspended negotiating committee, who submitted a three page cover letter, 72 pages of individual comments and 141 pages of attachments. No commenter indicated they had been excluded from the negotiations.

The proposed rule dealing with asbestos in schools generated fifty public comments that arrived at various points. Of the ten reviewed, two opposed the rule. The remaining eight contained objections or recommendations for change in specific elements of the rule. It is interesting that in these comments we enountered the first criticisms of the reg neg process itself. Two separate comments expressed concerns. Both complained that the deadline established for completion of the reg neg was unrealistic, implying a premature or incomplete result. One went further to criticize the inclusion of a former asbestos manufacturer and the exclusion of a representative of plaintiffs' attorneys on the negotiating committe. This was the sole instance of a claim of incomplete representation found in the more than fifty public comments reviewed. Even here, one claim was of over-inclusion and the other was of under-inclusion.

The rule dealing with minor permit modification attracted only eight comments and other forms of communication prior to the start of the regulatory negotiation. The proposed rule that resulted from it generated 58 comments from interested parties. Of the ten comments selected at random for review, four could be classified as negative, two were strongly supportive and the rest were generally supportive with individual complaints or suggestions for change. It is important to note that this docket contained a letter from the Chesapeake Bay Foundation, a member of the Negotiating Committee, written at the time of the reg neg, that the organization was ". . . unable to concur in the Negotiating Committee Statement . . ." Clearly, in this instance, consensus was not defined as unanimity.

If it was expected that negotiated rulemaking would result in little volume or substance of public comment on proposed rules, the forgoing indicates such an expectation was misguided. These proposed rules each generated a considerable volume of comment and our review of randomly selected submissions revealed a large number of concerns and requests or suggestions for change. That many of the comments received were critical or contained suggestions for change would not be

surprising in a conventional rulemaking. Those threatened by a given rule are certainly more likely to make the effort to try to secure change than individuals entirely satisfied who would be writing only to express their agreement and support. But these comments indicate that the consensus products of the negotiating committees did not fully anticipate all issues and satisfy all concerns of affected parties. Of course, the volume of comments might have been greater and their substance more critical if conventional rulemaking were used. And, the reg negs may have been superior on both dimensions to the typical rulemakings at EPA. However, we cannot determine this until the second stage of this study is finished. The full potential of regulatory negotiation might be better realized if the negotiating committees continued work until the final rule was complete. Additionally, EPA might consider a process to notice a draft consensus agreement of their committees in the Federal Register and allow the committee to consider comments prior to finalizing the negotiation.

Timeliness of the Rule

Exactly 40% of the respondents felt it took too long to produce the proposed rule but only 17% stated it took too long to produce the final rule. These results vary significantly across reg negs. In the asbestos reg neg, 27% of responses say the elapsed time writing the proposal was too short, compared to 8% overall. Only in woodstoves and minor permit modifications did 100% of responses describe the elapsed time writing the proposal as just right, compared to 53% overall. With respect to writing the final rule, clean fuels is unique because it garnered the fewest mentions describing the elapsed time as about right (43% versus 80% - 100% for the other rules), and it has the highest percentage who describe the process of writing the final rule as "too long" (57% versus no more than 12% for the other rules). While these results clearly reflect pressures felt during the reg neg and frustration at post-reg neg events, perceptions of timeliness may also reflect the amount of personal time spent on the reg neg by many participants, a topic to which we turn below.

Litigation Related to Negotiated Rules

The conventional wisdom that reg negs avoid successful legal challenge appears to be largely correct. The asbestos in schools rule was challenged but the court ruled in EPA's favor. The hazardous waste injection rule was challenged and once again EPA prevailed. The rule containing the results of the clean fuels reg neg was also challenged but the issues in question were not among those negotiated by the committee. Hence, this challenge cannot be considered a legal attack on the negotiated rulemaking.

Costs of Participation

The respondents were asked a series of questions about the types and magnitude of expenditures of resources needed to support their participation in negotiated rulemaking. The results were as follows:

Professional Staff Hours

The overall range in this category was huge, between 40 and a reported 40,000 hours. Another way to present outlays of this sort is to divide the respondents into three groups according to the hours they report using. The ranges for the low, middle and high groups are 40 to 260 hours, 275 to 650 hours and 700 to 40,000 hours, respectively. The median number of professional staff hours was 490, while the mean, reflecting some extreme high numbers, was 2200 hours.

The coke oven reg neg used the most professional staff hours (mean=8100 hours), and woodstoves and hazardous waste manifest used the fewest (means about 455 hours), but the differences are not statistically significant. Small business reported using the greatest number of professional staff hours; the mean is 10,700 hours, but the number of observations is too small for this to be a reliable estimate. EPA reported the next greatest use of professional staff hours (mean = 9500 hours). At the low end were business, environment, states, and suppliers of compliance services (means of 600 - 1000 professional staff hours), but these differences are also not statistically significant.

Clerical Staff Hours

A wide range of time, from 0 to 10,000 hours, was reported in this category, as well. The bottom third of respondents all reported 0 hours of clerical staff time. The middle third ranged from 0 to 36 hours and the top third reported using from 40 to 10,000 hours. The overall mean was 385 hours, but the median was 0 hours.

Again, the coke oven reg neg used the most hours (1060 hours) and woodstoves and minor permit modifications used the fewest (5-26 hours), but the differences are not significant. With respect to the respondent's affiliation, environmental interests used among the least number of clerical staff hours and small business used none. EPA used among the most (mean = 1780 hours); however, the differences are not statistically significant.

Monetary Expenditures

The same pattern of extreme skewedness in reported use of resources emerged in responses to questions related to out-of-pocket costs for research and information collection, use of consultants and legal counsel and related support activities, such as travel. For research and information collection, the bottom third of respondents spent nothing and the middle third spent no more than $250. However, two respondents reported spending in excess of $1 million and six others ranged from $50,000 to $500,000. The overall mean was $82,000, but the median was 0. For legal counsel, 2/3 of the respondents spent nothing, but two respondents reported spending in excess of $2 million. The overall mean was $56,000. The most common support activity expenditure was for travel. This, too, was highly skewed. The overall mean was $2500, while the median was 0.

Given the maldistribution of expenditures, and the likely relationship between spending and effectiveness in negotiated rulemaking, we reviewed the identity of the

big and small spenders. With respect to research and information collection, the states spent the least (mean = $2260) and environmental interests were also at the low end; big business spent the most (mean = $432,000). However, these differences are not statistically significant--probably because of the small number of observations in some cases. Similarly, the environmental interests and the states spent among the least for consultants and legal counsel (means of about $700 - $800) while EPA and big business spent among the most ($250,000 - $300,000)--but, again, the differences are not signficant statistically. For "other" expenses (mostly travel), the states, environmental interests (and big business) were among the lowest spenders, but again the differences were not significant. The consistency of the pattern, however, makes these disparities worth reporting even though they are not statistically significant.

Some reg negs are more costly than others. With regard to expenditures on research and information collection, hazardous waste injection was the most costly (mean = $600,300) while hazardous waste manifest (not primarily regarded as a technical reg neg) cost the least (mean = $53). (The differences are marginally significant, but the number of observations in some categories is quite small.) In respect to spending on consultants and legal counsel, coke ovens was the least costly (mean = $1400), while hazardous waste injection was the most costly (mean = $402,000). Again, the small number of observations in some categories makes these large differences not statistically significant, but they are striking nonetheless. Finally, for "other" expenditures (mostly travel), coke ovens was the most expensive (mean = $10,000) and clean fuels and hazardous waste manifest were the least costly ($400 - $600); these differences are significant.

It is also significant that when asked to estimate the relative costs of participation in the reg neg for their organizations, respondents, on average, reported that 26% of the resources available were devoted to the negotiation. (In other words, if an organization had 4 full time staff on its roster at the time of the reg neg, and one spent full time on the reg neg, and no other resources were used, the respondent would report that the reg neg used 25% of available resources.) The differences among respondent types were not significant, and they were not especially large; nonetheless, environmental participants report using among the highest percent of resources (50%) and states among the lowest (12%). There were significant differences among the rules on this dimension, with coke oven negotiations commanding, on average, 55% of the participants' organizational resources and hazardous waste manifest, minor permit modifications, fugitive emissions and woodstoves using 8%, 12%,14% and 15%, respectively.

Respondents' Overall Evaluation

After asking about costs, the interviews concluded with a series of questions that required the respondents to consider what their organizations had gained, if anything, from participation in the reg neg and a number of qualitative dimensions of the rule that resulted from the negotation.

When asked what the organization gained from participation, 32% reported that they got a better rule than would have been produced using other means, 28%

referred to gaining a better understanding of some aspect of the issue in question or the process of developing rules and 11% believed they had acquired a greater degree of influence in decision-making. It is notable that only 6% of the respondents stated they gained nothing from their participation. The respondents were then asked whether the benefits they realized from participation in the reg neg exceeded the costs involved. Seventy-eight percent responded that the benefits did exceed the costs, 7% percent surmised that the benefits and costs were roughly equal while 15% felt they spent more than they got in return. The reg negs emerged differently on this dimension. On a scale of 1-3, where benefits>costs=3, benefits=costs=2, and benefits<costs=1, the highest rating went to hazardous waste manifest (mean=2), and the lowest ratings went to wood stoves (mean=1) and fugitive emissions (mean=1). These differences are statistically significant.

Ratings for the Rule and the Process

The respondents were asked to rank the rule on a ten point scale, from -5 to 5, with -5 meaning that, on the dimension in question, "the rule could not be worse" and 5 meaning "the rule could not be better." A score of 0 indicates the respondent was essentially neutral with regard to the dimension in question. Presented below are the aggregate mean and median scores, and the percentage of positive scores (i.e., above "0"):

Quality of Supporting Scientific Analysis

Aggregate Mean=1.6: Median=2; %>0 =68%

As the table below shows, there were significant differences among the rules. The highest ratings went to clean fuels and minor permit modification and lowest went to hazardous waste manifest. On the latter any other result would be suspect given the subject matter of the rule--changing the form was not regarded as a scientific issue.

Means--Quality of supporting scientific analysis

Asbestos	1.0
Woodstoves	2.1
Coke oven	1.2
Clean Fuels	2.6
Minor permit modification	2.5
Fugitive emission	2.2
Hazardous waste injection	1.8
Hazardous waste manifest	0.0

Incorporation of Appropriate Technology

Aggregate Mean=2.1; Median=3; %>0 = 77%

There were no significant differences among the reg negs on this dimension.

Cost-Effectiveness of Rule

Aggregate Mean=1.5; Median=2; %>0 =70%

There were no significant differences among the reg negs on this dimension.

Economic Efficiency of Rule

Aggregate Mean=1.5; Median=2; %>0 = 69%

As the table below demonstrates, there were differences on this dimension among the rules but they are only marginally significant.

Means--Economic efficiciency of rule

Asbestos	0.1
Woodstoves	1.1
Coke ovens	1.6
Clean fuels	2.3
Minor permit modifications	3.1
Fugitive emissions	1.8
Hazardous waste injection	-.4
Hazardous waste manifest	1.4

Ability of EPA to Implement the Rule

Aggregate Mean=1.6; Median=3; %>0 = 67%

There were significant differences among the reg negs on this dimension. The highest rating was given to minor permit modifications (3.5), and the lowest to asbestos in schools (-.1), as the table below shows.

Means--Ability of EPA to implement rule

Asbestos	-.1
Woodstoves	2.6
Coke ovens	2.5
Clean fuels	1.6
Minor permit modifications	3.5
Fugitive emissions	1.8
Hazardous waste injection	2.0
Hazardous waste manifest	1.0

Ability of EPA to Implement the Rule Equitably

Aggregate Mean=2.2 Median =3; %>0 = 69%

As the table below reveals, there were marginally significant differences among the rules on this dimension. Coke oven and minor permit modifications get the highest ratings (nearly 4.0), while asbestos gets the lowest (barely 1). Among classes of respondents there were significant differences with the highest ratings given by EPA and business respondents. Those providing compliance services or products gave the lowest rating in this area. (Table not shown.)

Means--Ability of EPA to implement rule equitably

Asbestos	0.9
Woodstoves	2.4
Coke ovens	3.8
Clean fuels	1.8
Minor permit modifications	3.7
Fugitive emissions	2.1
Hazardous waste injection	1.6
Hazardous waste manifest	1.9

Ability of Respondent to Comply with the Rule

Aggregate Mean =3.4; Median=4; %>0 = 85%

Significant differences exist among the rules on this dimension. All ratings are positive but they range from a low of 1 for asbestos to a high of 4.8 for woodstoves.

Means--Ability of respondent to comply with rule

Asbestos	1.0
Woodstoves	4.8
Coke ovens	2.6
Clean fuels	3.3
Minor permit modifications	3.8
Fugitive emissions	3.3
Hazardous waste injection	4.5
Hazardous waste manifest	3.9

Ability of Rule to Survive Legal Challenge Prior to Enforcement

Aggregate Mean=3.3; Median=4; %>0 = 89%

Significant differences exist among the rules on this dimension. The table below shows that the lowest rating is 1.9 for clean fuels and the high is 4.8 for hazardous waste injection (the failed reg neg) and coke ovens.

Means--Ability of rule to survive legal challenge prior to enforcement

Asbestos	3.4
Woodstoves	2.1
Coke ovens	4.8
Clean fuels	1.9
Minor permit modifications	3.8
Fugitive emissions	3.3
Hazardous waste injection	4.8
Hazardous waste manifest	3.3

Ability of Rule to Survive Legal Challenge Once Enforced

Aggregate Mean=3.4; Median=3.5; %>0 = 93%

There are no significant differences among the rules on this dimension.

Overall Benefits of Rule to Respondent's Organization

Aggregate Mean=2.0; Median=2.5; %>0 = 78%

There are no significant differences among the rules on this dimension but there are among classes of respondents. Environmental interests gave the lowest ratings on this dimension (.1) while state and local government representatives gave the highest (3). (Table not shown.)

Respondent Overall Rating of the Reg Neg Process

Aggregate Mean=2.1; Median=3; %>0 = 79%

There are no significant differences among the rules on this dimension. Significant differences exist between classes of participants, however. Again, environmental interests gave the lowest rating (.3), and EPA representatives gave the highest (2.9). (Table not shown.)

Respondent Rating of Personal Experience with Reg Neg

Aggregate Mean=2.8; Median=3; %>0 = 90%

There are no signficant differences among the rules on this dimension. Differences between classes of participants are only marginally significant without much variation by affiliation.

Respondent Likes and Dislikes About the Process

The respondents were asked to detail what they liked and disliked about the negotiated rulemaking process. The most common response (43%) related to something the respondent learned about the issue, about other interests or about the process itself. Other responses mentioned the quality of the rule that was produced (10%), the willingness of others to be flexible or to negotiate (13%), and interactions with the other participants (9%). It is significant that a number of responses (8%) noted that they expected what they had learned and the contacts they had made to pay dividends in future situations involving both similar issues or interaction with the government and other interests in general. Only 3 respondents stated they liked nothing about the process.

These positive statements notwithstanding, virtually all respondents (95%) also found things they disliked in the process. The time that had to be devoted to participation was a common complaint (18% of responses) as were references to "risk" and "uncertainty" of the process itself (20% of responses). Sixteen percent of the respondents made comments indicating they thought some aspect of the process was faulty or unfair. Some saw the ability of one party to stall or derail the negotiations as a problem. As noted earlier, some complained about the relative power of certain participants.

The reference to risk deserves a bit of elaboration. Some respondents noted that the risk was personal in that they were often negotiating on behalf of their organization without sufficient guidance from the membership or superiors. The intense nature of the negotiations and the tendency in some for the most important issues to be deferred to the last stages presented some participants with difficult choices. Should they delay or walk away from the negotiations because of their uncertainty about what to do or should they join a consensus and risk the wrath of their superiors or membership should the result be perceived as bad for the organization? In at least one reg neg it was reported that most participants would not sign the consensus agreement without first filing a number of "qualifying statements" making their agreement contingent on one or another interpretation of what the agreement meant. In another, Agency participants reported constant checking with management to ensure they were on a track acceptable to their superiors. The matter of risk and how it is managed by those selected to negotiate was raised by enough to respondents to be considered a significant aspect of participation in negotiated rulemaking.

Determinants of Overall Rating of the Process

We saw above that the overall rating of the process does not vary significantly across reg negs, but it does vary signifcantly according to the respondent's affiliation. Two general classes of factors can be expected to affect the overall evaluation of the reg neg process: one class refers to characteristics of the process itself, and the other refers to the substantive content of the rule that emerged from the reg neg. At one extreme, it is possible that respondents' evaluations of the reg neg process are based only on their view of the content of the rule that emerged; at the other extreme, their

evaluations could be based only on the process, independent of the rule. Of course, in between, respondents could base their evaluations of reg neg on both substance and process. The multiple regression results below in fact support this latter expectation rather than either of the two extremes.

The regression below incorporates 9 aspects of the reg neg process, 2 aspects of the substantive rule, and several dummy (or categorical) variables to capture the affiliation of the respondent. Specifically, the variables in the regression, their measurement, and their expected relation with the overall evaluation, are:

Independent variable	Measurement/expectation
Ease of decision to participate	1-3 scale, where 1=easy, 2=mixed, and 3=difficult. The expectation is the easier the decision to participate, the higher the overall rating.
Anyone not there who should have been?	Coded 1 if yes and 0 if no. The expectation is that the rating will be lower if someone is missing.
Competence of convenor	1-3 scale, where 1=competent, 2= mixed, and 3=incompetent. The expectation is that the rating will be lower if the convenor is regarded as incompetent.
Big business	1 if yes, 0 if no
Small business	1 if yes, 0 if no
Business--size unknown	1 if yes, 0 if no
Environmentalist	1 if yes, 0 if no
State/local agency	1 if yes, 0 if no
Other	1 if not otherwise classified, 0 if classified above
EPA	Reference group; group other affiliations is compared to
Everything negotiated?	1-3 scale, where "no, items were left out"=1; "yes, most but not all were negotiated"=2; "yes, all were negotiated"=3. The rating of the process is expected to be higher if everything was negotiated.

(Table continued on next page)

Independent variable	Measurement/expectation
Any surprise issues?	1-3 scale, where 1=no, 2 = surprise only at post-reg neg events, and 3 = surprise issue during reg neg. The expectation is that surprise issues will lower the evaluation of the process.
Complexity/messiness of the reg neg	For each reg neg, messiness = (# mentions of sides+# mentions of issues)/# respondents. This describes the reg neg, not the respondent. The more sides and the more issues, relative to the number of respondents in each reg neg, the messier and the difficult the negotiation, and the lower the evaluation.
Clarity of understanding of the reg neg	For each reg neg, clarity/understanding = max. number of mentions of issues + sides. In some reg negs not one participant could identify > than 2 sides and 1 issue, yet it was clear there were more; but the respondent could not articulate them. In others, respondents had little difficulty identifying subissues and subconflicts. The expectation is that greater understanding results in higher ratings.
Was all info needed during reg neg available?	Coded 1 if all the info the respondent needed during the reg neg was available, and 0 if all the info was not available. The rating of the process is expected to be higher if needed information is available.
Any party with disproportionate influence?	Coded on a 3-point scale, where 0 = no party with disproportionate influence, 1 = party has disproportionate participation not influence, and 2 = party has disproportionate influence. The perception of disproportionate influence is expected to reduce the rating of the process.

(Table continued on next page)

Independent variable	Measurement/expectation
Benefits of the rule to the respondents' organization	Rating scale where -5 = benefits couldn't be less to +5 = benefits couldn't be more. When the substance of the rule is rated higher, the evaluation of the process as a whole is also expected to increase.
Economic efficiency of the rule	Rating scale where -5 = efficiency couldn't be worse to +5 = efficiency couldn't be better. The expectation is that when rules are perceived to be efficient, the rating of the process will be higher.

The results of the regression are reported in the table that follows:

Regression of rating of rule-making process overall on selected variables

Independent variable	Regression coefficient	Significance level (p<?) (2-tailed)
Ease of decision	-.339	.39
Not there?	-.264	.60
Facilitator competence	.008	.99
Big business	1.007	.36
Small business	-2.465	.08
Business-size unknown	.404	.69
Environmentalists	-.628	.50
State/local officials	-.002	.99
Other	.855	.29
Everything negotiated?	.540	.12
Surprise issue?	.075	.77
Complexity/messiness	-1.700	.03
Clarity/understanding	.340	.08
Info available?	.230	.66
Disproportionate influence	-.188	.56
Benefits of rule to org.	.284	.01
Economic efficiency of rule	.286	.01
Intercept	4.171	.10
R-squared	.51	.0001
Adjusted R-squared	.36	
Number observations	78	

The results show that only one of the respondent affiliation variables is significant. Specifically, small business respondents rate the reg neg process 2.5 points lower (on the 11-point scale) than EPA respondents, once other variables are held constant. While we saw that environmental interests gave the lowest ratings to the process in the bivariate results discussed earlier, once other variables are controlled, their ratings are not significantly lower than EPA's ratings.

With respect to the process variables, only two are significant. Both are variables that pertain to the reg neg itself rather than to any particular respondents. As expected, the more issues and sides that respondents in the aggregate mentioned in the reg neg (divided by the number of respondents), the more complicated the reg neg, and the more difficult it is to resolve issues easily. In point of fact, separate analysis reveals that "messiness" (or complexity) scores are significantly higher when respondents report that not all issues were negotiated than when they report that all issues were negotiated; specifically, the complexity scores are 4.0, 4.3, and 4.4 when issues are reported as all negotiated, mostly negotiated, and not all negotiated (or left out), respectively. While not large, these differences are significant at the .01 level. Consequently, when there are a lot of issues and sides, the process will be perceived as "messy" and will receive a poorer overall evaluation. This conceptualization appears to have face validity. The reg neg that is perceived as the "messiest" is clean fuels: it had the highest score of 5 issues and sides per respondent. Close behind were hazardous waste manifest, with a score of 4.4 issues and sides per respondent; asbestos with a score of 4.1; and woodstoves, with a score of 4. The reg neg perceived as least messy was hazardous waste injection, with a score of 2.9 issues and sides per respondent. The regression shows that, for each additional issue or side (per respondent) mentioned in a reg neg, the evaluation drops by 1.7 points; the result is significant at $p<.05$.

The other process variable that is significant is the ability of respondents to mention issues or sides: on one hand, too many issues and sides makes negotiations messy; on the other, the inability of respondents to explicitly identify separate sides and issues implies that respondents may over-simplify issues and either deliberatedly or unintentionally miss opportunities for compromise. When no respondent in a reg neg can identify, say, more than one issue and 2 sides, it suggests that respondents may not have had a good understanding of the issues at stake in the reg neg, and will consequently rate the reg neg more poorly. The lowest score in this regard was hazardous waste injection. Together, no respondent could identify more than 1 issue and 3 sides (environmental interests, state/local officials, and business). By contrast, the maximum number of issues and sides that any respondent in the asbestos, clean fuels, fugitive emission, and hazardous waste manifest reg negs could recall was 10, and 9 in the woodstoves and minor permit modification reg negs; in the coke oven reg neg, the maximum number of issues and sides that any respondent could recall was 5. The results suggest that a high score on this variable raises respondents' overall evaluation of the process: once the measure of messiness is held constant, as the maximum number of issues and sides that any one respondent in the reg neg could recall increases, the rating of the reg neg also increases by 0.3. The result is marginally significant using a 2-tailed test, but it is clearly significant with a 1-tailed test ($p<.05$); since a positive sign was expected, the 1-tailed test is clearly appropriate in this instance.

The other variables that are significant pertain to the respondent's substantive evaluation of the proposed rule that resulted from the reg neg. For each additional point the respondents ascribe to the benefits of the rule for their organization (on the 11-point scale), their rating of the overall process increases by .3, even when other variables--including the perceived efficiency of the rule--are held constant. Similarly, for each additional point that respondents ascribe to the proposed rule's economic efficiency, their rating of the overall process also increases by .3, holding other variables constant.

The standardized regression coefficients (not reported in the table) show that the two significant process variables and the two significant variables characterizing the substance of the proposed rule are equally important in affecting the overall rating. However, the 17 variables in the regression explain only 36% of the variance in the respondents' rating of the overall reg neg process, once the limited number of degrees of freedom in the regression are accounted for.

Conclusions and Remaining Questions

A number of conclusions can be drawn from Phase 1 of this research but others must await the completion of our study of comparable rules developed using conventional rulemaking techniques. As is usually the case in research of this sort, a number of questions remain that will not be fully answered by this research. They establish an agenda for future inquiries into the topic.

Based on the data presented above, negotiated rulemaking is successful on several critical dimensions. It is widely perceived by participants as an effective means for developing regulations on virtually all important qualitative dimensions. The criteria established in literature and law for the selection of candidates for reg neg appear to be relevant in the selection process used by EPA, although their importance appears to vary from case to case and the discretion exercised by key Agency officials in the use of techniques is obviously considerable. The opportunity to participate in the process appears to be extended broadly, albeit not universally, and EPA or the facilitator it secured were frequently identified as an initiator of participation.

The process of negotiation itself emerges as a very powerful vehicle for learning that the participants in the process value highly, and there are many types of information that is exchanged. The interviews suggest further that what is learned has long-term value and is not confined to a particular rulemaking. Ground rules for the negotiations appear to be explicitly set in all instances. They are understood by the participants and sufficiently flexible to allow adaptation to new circumstances. The negotiation process employs a number of devices to subdivide issues, such as working groups and caucuses, that were viewed as effective by a substantial number of respondents. And the use of non-committee observers serves as a device to expand participation without inflating the negotiating groups past workable limits. Facilitators were generally viewed as competent, unbiased and providing a number of services that promoted consensus.

Most participants believe their participation had a substantial effect on the agreement that was produced and report that the opportunity to have an impact on the outcome was one of the aspects of the process they considered most valuable. While disproportionate influence and participation was reported by a large number of respondents, the observed influence ranged broadly across the various types of groups involved in the negotiations. Most report the benefits they realized from the reg neg process exceeded the frequently considerable costs they incurred through participation. Their overall ratings of the reg neg process and their personal experiences with it are strongly and widely positive.

This generally favorable evaluation of negotiated rulemaking currently must be considered tentative until we study comparable rules developed with conventional techniques. And, it must be considered in the context of a number of issues that have been explored above but have not been fully resolved in this research.

Participation in negotiated rulemaking emerges as quite costly, with the impact appearing to fall disproportionately on smaller organizations. It is not clear how EPA decides whom to subsidize and at what level or whether the subsidies received offset full costs the receiving organizations incurred. The information costs of participation in negotiated rulemaking may generally be proportionately greater for environmental and other non-business groups, such as consumers and unions, who might participate in an EPA reg neg. This is because there are relatively few of them and they are thinly staffed with the type of expertise at a professional level capable of participating effectively in this process.

While respondents spoke frequently and positively about what they learned and the information they took away from the process, negotiated rulemaking has not completely eliminated the advantage larger interests enjoy in this and other aspects of the rulemaking process. One observer noted that larger regulated entities occupy a position of unchallengable influence because they have complete information about their activities, better than anyone else including EPA, and know what they can do about the problems being addressed by the rule. To create a truly level playing field in the information dimension of negotiated rulemaking appears to be a very expensive, if not infeasible, undertaking.

We should note again the pattern found in some of the qualitative ratings outlined above. In terms of satisfaction with the process and their experience with it, certain classes of participants, notably environmental interests, gave lower ratings than did others. Their ratings were positive, but marginally so. We cannot determine at this point the effects of resource constraints on their perceptions of the process and their experience. On one hand, environmental interests spent less on professional staff in negotiations than other groups, but the percentage of resources they invest does not vary significantly from that of other interests.

The post-negotiation period during which a final rule is developed and promulgated has emerged as a significant issue worthy of more study. The informal status of the negotiating committee once either consensus is reached or a proposed rule is developed is quite unclear. While respondents reported relatively little difference between what was negotiated, proposed and the final rule, there is

evidence of considerable post-negotiation activity by some members of the committee. Some of it is explicitly described as effort to secure a change in the rule, presumably the one developed by the committee on which they served. Further, our examination of public comments indicates a considerable volume of response to the proposal, greater than one might expect if all relevant interests were represented on the committee and concurred with the result. The comments sampled reveal numerous suggestions for changes and some opposition. Also, the preambles of final rules contain evidence that EPA made changes in the proposed rule, some of which appear to be significant. We outlined above some of the implications of an apparently active post-negotiation period but it is important to learn more about the extent to which all important issues are identified and resolved in the formal negotiations. Combined with the extent of informal communications reported during the period of negotiation, the activities in the post-negotiation period are potentially quite important.

This first phase of research has produced many results that advocates of negotiated rulemaking will find encouraging. The degree to which the process has been embraced by the participants is striking, as are their evaluations of its results. The issues we have uncovered are not insignificant but some are not related solely to negotiated rulemaking, nor can they be fixed with greater attention to procedural issues. The problem of information asymmetry, for example, is related to resources and will disable affected groups in all forms of governmental decision-making they attempt to influence. And, if the post-negotiation period is one that threatens the integrity or efficacy of committee work, the simple solution is to keep the Committee intact until the final rule is published.

What we cannot answer is whether in all or any dimensions of rulemaking studied here reg neg is superior to or even different from conventional techniques. Those answers will be provided by Phase 2 of this study.