

Consensual Rule Making and the Time It Takes to Develop Rules

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Observers of and participants in rule making have long pointed out that the process is often quite slow. Some rules, such as those governing hazardous waste transportation and hydroelectric power licensing, take more than ten years to develop (Kerwin 1999). Two decades ago, a congressional study found that the average amount of time that elapsed between publication of a proposed rule in the *Federal Register* and promulgation of a final rule was 429 days for the Interstate Commerce Commission (U.S. Congress 1977). More recent data on the Environmental Protection Agency (EPA) indicate that this duration is 523 days and that an additional 571 days typically elapse between the initiation of rule making and publication of a proposed rule. EPA rule makings, in other words, average more than 1,000 days in length (Kerwin and Furlong 1992).

There are a variety of outcomes associated with lengthy rule makings. According to the General Accounting Office (GAO), a fifteen-month delay in the promulgation of a Medicaid cost-sharing rule resulted in the loss of \$81.2 million in projected budgetary savings (GAO 1977). More broadly, lengthy rule makings postpone the realization of the intended benefits of rules, which in many instances are the prevention of illness and injury and the saving of lives (Kerwin 1999; Kerwin and Furlong 1992; U.S. Congress 1977). Conversely, a delay in rule making has positive consequences in that it protects regulated parties from rules that are arbitrary and capricious and in general provides due process to parties with a stake in agency actions (Kerwin 1999; U.S. Congress 1977). In

sum, the time it takes to develop rules has important implications for both the expected beneficiaries and targets of agency policies.

Despite the prevalence of and distributional consequences associated with lengthy rule makings, little is known about the sources of delay. The hypothesized causes include the complexity of issues addressed in rule makings; the legal requirements imposed on agencies by presidents, Congress, and the courts; shortcomings in agency leadership and organization; and conflict between parties affected by rules (Hawkins and Thomas 1989; Kerwin and Furlong 1992). Researchers have not, for the most part, subjected these hypotheses to empirical scrutiny, and much of what is known about delay is the product of anecdotes and case studies (Eisner 1989; U.S. Congress 1977; GAO 1977).

In this research, we examine the time it took to develop 170 major rules issued by federal agencies between March 1996 and June 1999. Our central focus is on the procedural environments that governed these rule makings. Historically, the basic framework for rule making has been provided by the Administrative Procedure Act of 1946, which mandates that agencies give notice of their intention to issue rules and that interested parties be given an opportunity to comment on agency proposals. Although these requirements have been augmented by a variety of executive orders, statutes, and court rulings, the structure of rule making has remained largely the same for more than a half century (Mintz and Miller 1991). In recent years, however, there has been a movement toward consensual rule making, an approach that fundamentally alters the way in which rules are developed, in particular the timing and mechanism of public participation. In consensual rule making, parties with a stake in particular rules collectively participate in the development of agency proposals in a variety of ways, such as serving on advisory committees and taking part in regulatory negotiations. One of the central tenets of consensual rule making is that it speeds the development of rules by providing a forum through which agencies and stakeholders can identify and resolve differences early in the process. Although it is widely argued that consensual rule making diminishes the likelihood of protracted comment periods (Harter 1982; Mintz and Miller 1991; Susskind and McMahon 1985), existing empirical evidence is limited and mixed (Coglianese 1997; Kerwin 1999; Kerwin and Furlong 1992).

Our central objective is to assess the extent to which consensual rule

making affects the time it takes to develop rules. Despite its potential expediency, consensual rule making may not, in practice, speed the development of rules. For example, consensual rule making is thought to be most effective under certain conditions, such as when the number of stakeholders is small and when stakeholders share fundamental values and perceive opportunities for mutual gain (Harter 1982; Mintz and Miller 1991; Susskind and McMahon 1985). These conditions must be accounted for when assessing the efficacy of consensual rule making, as a failure to consider the circumstances under which rules are made could obscure the effects of the procedural environment.

This consideration is particularly important given that the use of consensual rule making is not likely random. For example, agencies may use consensual rule making to expedite or delay the issuing of rules and, by extension, to affect the distribution of benefits and costs among stakeholders. With this in mind, it is important to understand the application of consensual rule making, as these decisions have important implications for the relationship between consensus-based procedures and the time it takes to develop rules. In the analysis that follows, we do not endeavor to explicate fully the factors that affect the use of consensual rule making. Rather, we focus on its expediency, taking into account the circumstances that surround its application.

Consensual Rule Making

Consensual rule making is a broad approach that encompasses a variety of structures and processes. Its basic feature is bargaining between parties with a stake in agency actions early in the development of rules (Kerwin 1999). Two statutes provide the institutional foundations of consensual rule making—the Federal Advisory Committee Act of 1972 and the Negotiated Rulemaking Act of 1990. The Federal Advisory Committee Act governs the formation and operation of advisory committees of the federal bureaucracy. Advisory committees can be created by agencies, Congress, and the president and must be composed of representative cross sections of stakeholders. Advisory committee functions vary widely but typically include making recommendations on rule-making priorities, conducting studies on issues relevant to rule makings, and commenting on proposed rules prior to publication. Examples of advisory committees are the Department of Transportation's National Motor Carrier Advisory

Committee, the Department of Health and Human Services' National Advisory Council on Aging, and the Department of Labor's National Advisory Committee on Occupational Safety and Health.

The Negotiated Rulemaking Act codifies the framework for regulatory negotiation, a process in which agencies and stakeholders collectively draft proposed rules. The central institutional arrangement is the negotiated rule-making committee, a type of advisory committee that is distinctive in several respects. Negotiated rule-making committees are established to draft specific rules and are terminated upon promulgation of these rules. They are typically charged with achieving unanimous concurrence among agencies and stakeholders. Once unanimous concurrence is achieved, the recommendations of negotiated rule-making committees are published as agency proposals and are subjected to public comment and other procedural requirements.

In 1983, the Federal Aviation Administration (FAA) became the first agency to implement regulatory negotiation when it used the process to develop a rule governing the maximum flight and duty time of pilots and other air carrier personnel (Eisner 1984). Since then, regulatory negotiation has been applied in areas such as roadway worker protection, direct student loans, and subsidies for public housing. The EPA has conducted more regulatory negotiations than any other agency and accounts for about one-third of all such proceedings (Coglianese 1997). Other agencies are increasingly turning to regulatory negotiation, in part because in 1993 President Clinton issued a memorandum mandating that each agency develop at least one rule through this process. In addition, several agencies, such as the Department of Education and the Nuclear Regulatory Commission, are required by statute to use regulatory negotiation to develop particular rules (Kerwin 1999).

Advantages of Consensual Rule Making

The FAA initiated a regulatory negotiation to develop its flight and duty time rule because it had previously published several proposed rules but, due to substantial stakeholder objections, had been unable to issue a final rule (Eisner 1984). In general, the movement toward consensual rule making is the product of discontent with the traditional approach to developing rules (Eisner 1984; Harter 1982; Kerwin 1999). According to critics of traditional rule making, the fundamental shortcoming of the Administrative Procedure Act is that its proceedings are inherently ad-

versarial. For example, parties that comment on proposed rules frequently stake out extreme positions and focus on pointing out flaws in agency proposals. In addition, participants often do not fully reveal their information or the intensity of their preferences. In general, participation is not oriented toward resolving complex or contentious issues but toward establishing a basis for lawsuits challenging agency actions.

Consensual rule making has the potential to reduce this “malaise” by altering the role of agencies and stakeholders (Harter 1982, 2). Stakeholders participate directly in the development of rules rather than merely commenting on agency actions. Stakeholders also deal directly with one another rather than through agency arbiters. Given their enhanced involvement and interaction, stakeholders have incentives to eschew extreme positions, prioritize their preferences, exchange information, and in general search for common ground that can provide the basis for mutually acceptable rules (Harter 1982; Susskind and McMahon 1985). As a result, rules developed through consensual rule making may be of high quality and may enjoy widespread legitimacy among stakeholders.

Consensual rule making may also reduce the time it takes to develop rules, in particular in the period between publication of the proposed rule and promulgation of the final rule (Harter 1982; Susskind and McMahon 1985). The rationale behind this argument is that because “most of the parties likely to comment have already agreed on the notice of proposed rulemaking, the review period should be uneventful” (Susskind and McMahon 1985, 137; see also Eisner 1984). For example, stakeholders should submit relatively few comments, and comments should be oriented toward fine tuning, rather than overhauling, agency proposals.

When and Why Consensual Rule Making May Not Work

According to advocates of consensual rule making, regulatory negotiation is more effective in reducing delay than other approaches (Harter 1982; Susskind and McMahon 1985). For example, the Occupational Safety and Health Administration (OSHA) failed in its effort to use consensual rule making to develop a rule governing occupational exposure to benzene. One explanation for this failure is that OSHA “merely invited those affected by the rule to develop a version that they could agree upon” (Susskind and McMahon 1985, 137). In other words, OSHA did

not convene a negotiated rule-making committee, nor did it participate directly in the bargaining process. Supporters of regulatory negotiation are particularly skeptical about the efficacy of advisory committees, claiming that they often offer “bland recommendations” and succeed only in adding “another layer and more delay to the rulemaking process” (Harter 1982, 66–67). One reason for this skepticism is that the Federal Advisory Committee Act requires proceedings to be open to the public, which may make stakeholders less inclined to divulge their information and preferences and to make concessions to opposing interests.

Advocates also acknowledge that regulatory negotiation may not be expedient in certain situations (Harter 1982; Mintz and Miller 1991; Susskind and McMahon 1985). For example, it is difficult to conduct regulatory negotiations when there are many stakeholders. In addition, stakeholders may refuse to participate if there is a party that can dominate the proceedings and secure a favorable outcome at the expense of others. Issues must also be structured so that stakeholders can reach mutually beneficial agreements. For this reason, advocates argue that disputes over fundamental values are not generally amenable to regulatory negotiation.

Empirical Evidence

Is there any direct evidence that consensual rule making affects the time it takes to develop rules? There has been little research on the expediency of consensual rule making, and this research has focused exclusively on regulatory negotiation. Kerwin and Furlong (1992) studied more than one hundred rules issued by the EPA between 1986 and 1989. Four of these rules were developed through regulatory negotiation, which consumed, on average, 330 fewer days than the typical EPA proceeding. Regulatory negotiation was particularly expedient in the period between publication of the proposed rule and promulgation of the final rule. The average duration of this period was 319 days for regulatory negotiation and 523 days for rule making in general. In contrast, Coglianesse (1997) collected data on all regulatory negotiations conducted by the EPA between 1983 and 1996 and found that these proceedings were not, on average, shorter in duration than the typical EPA rule making.

In sum, the evidence that consensual rule making affects the time it takes to develop rules is mixed. It is also limited in two important respects. First, researchers have focused predominantly on the EPA, the

agency that has made the most extensive use of consensual rule making. As a result, little is known about the impact of consensual rule making at other agencies. Second, researchers have studied only one type of consensual rule making. Although it is widely argued that regulatory negotiation is more expedient than other approaches, this argument cannot be fully evaluated until more is learned about these approaches. With these limitations in mind, the analysis that follows examines the effect that advisory committees and regulatory negotiation have had on the speed with which rules are developed in dozens of agencies.

The Sample of Rules

Researchers assessing the effects of consensual rule making have used several criteria to decide on which rules to focus. In an analysis of stakeholder evaluations of different approaches to rule making, Langbein and Kerwin (2000) examined fourteen rules, divided nearly equally between regulatory negotiations and conventional proceedings. Although this strategy has important advantages (e.g., it facilitated interviews with participants in both types of rule makings), its major drawback is that it is not clear to what extent Langbein and Kerwin's findings apply to rule making in general. Kerwin and Furlong (1992, 122) focused on a larger set of rules, excluding only those that were "deemed sufficiently routine or inconsequential." This exclusion is reasonable given that agencies are not likely to use consensual rule making to attend to issues in which there is little interest or conflict among stakeholders (Coglianese 1997).

Our sample is similar to that of Kerwin and Furlong (1992), but we do not restrict our focus to EPA rules. We examine 170 major rules issued by nearly forty agencies between March 1996 and June 1999. During this period, agencies issued 204 major rules, 34 of which were promulgated without being preceded by a proposed rule. Several types of rules are exempted from the Administrative Procedure Act's notice and comment requirements, including interpretive rules, rules addressing military or foreign affairs functions, and rules for which the agency finds good cause that the requirements are impracticable, unnecessary, or contrary to the public interest. For example, in 1997 the Animal and Plant Health Inspection Service's rule on Karnal bunt (a fungal disease of wheat) was expedited because without it growers could not adequately plan for the upcoming crop season. Since consensual rule making is thought to be particularly effective in reducing the length of the period

between publication of the proposed rule and promulgation of the final rule (Eisner 1984; Susskind and McMahon 1985), we focus on the 170 rules that were subjected to the notice and comment process.

Given that the sample consists of most major rule makings completed in a more than three-year period, the rules address a wide variety of topics, such as respiratory protection in the workplace, drinking water contamination, and meat and poultry inspection. The most active agency was the Federal Communications Commission (FCC), which issued 40 rules. Other active agencies included the EPA, Fish and Wildlife Service, Health Care Financing Administration, and Securities and Exchange Commission (SEC). Agencies used advisory committees and regulatory negotiation in the development of nineteen rules. The EPA made the most extensive use of these approaches, applying them to seven rules. The FCC, OSHA, and Food and Drug Administration also applied consensual rule making to multiple rules.

Although the rules were completed in a particular period, there is no immediate reason to suspect that the sample is unrepresentative of contemporary rule making. For example, between July 1999 and September 2001, agencies issued, on average, about five rules a month, a rate quite similar to that of the period under study. Many of the same agencies were once again the most active issuers of rules. The rule makings in the sample varied substantially in duration; although many proposed rules were published merely weeks before final rules were issued, this stage of the process lasted for many years in some cases. In fact, about one-third of the proposed rules appeared in the *Federal Register* prior to March 1996, and several were published during the Bush administration. This variation in proposal dates holds for both consensual and conventional proceedings. In general, it does not appear that either subset of the sample constitutes a biased representation of its genre of rule making.

Variables and Methods

Measuring the Duration of Rule Making

The dependent variable is the number of days that elapsed between publication of the proposed rule and promulgation of the final rule. We used GAO reports on major rule makings (<<http://www.gao.gov>>) and the texts of the final rules to determine the dates on which the proposed

rules appeared in the *Federal Register*. For most rule makings, identification of the proposed rule was straightforward. In other instances, however, final rules were preceded by more than one preliminary notice, raising the issue of which notice to denote as the proposed rule. For example, prior to issuing its final rule on polychlorinated biphenyl (PCB) disposal, the EPA published two preliminary notices. The first notice outlined the changes in PCB disposal that the EPA was considering (e.g., whether to expand the list of available decontamination procedures), while the second notice contained the agency's full-blown proposal (which indicated its preference for expanding the decontamination list). In this instance, we designated the second notice as the proposed rule. We did not always select the notice that directly preceded the final rule, however. For the EPA's rule on ozone transport, the penultimate notice revised an earlier notice's emissions budget calculations and used newly available information to update its electricity demand forecasts. With this in mind, we identified the earlier notice, in which the EPA first laid out its proposal in comprehensive detail, as the proposed rule.¹

We focus on the period between publication of the proposed rule and promulgation of the final rule for two reasons. The first reason is that, as noted earlier, advocates assert that consensual rule making likely increases stakeholder satisfaction with proposed rules (Eisner 1984; Susskind and McMahon 1985). If the post-proposed rule period is not shorter than under conventional proceedings, then consensual rule making is not likely to reduce delay, given that the preproposed rule period entails a "preemptive, intense, time consuming negotiated interaction" (Polkington 1995, 28). Second, it is difficult to identify the start of a rule making and, by extension, its overall duration. Kerwin and Furlong (1992) identified the start of EPA rule makings by examining files in the agency's internal regulation development management system. Replicating this process for dozens of agencies would be time consuming and potentially problematic, as it is not immediately clear that agencies other than the EPA maintain the requisite information in a readily accessible format.

The average amount of time that elapsed between publication of the proposed rules and promulgation of the final rules was 433 days. Seventeen rule makings had durations of less than 60 days. All but one of these rules were issued by the Fish and Wildlife Service and established parameters for seasonal migratory bird hunting. The rule making with the

longest duration— more than six years—was the Pension Benefit Guaranty Corporation's regulation on payment of premiums. Five EPA rule makings took longer than 1,000 days. These rules addressed issues such as surface water treatment, emission standards for pulp and paper production, and municipal solid waste landfill facilities.

The Use of Advisory Committees and Regulatory Negotiation

We used the text of the final rule to determine whether the agency consulted with an advisory committee or conducted a regulatory negotiation. We searched for a variety of terms that agencies typically use when describing these types of consensual rule making.² We then carefully read the relevant sections of the rules that used any of these terms. If the agency mentioned that an advisory committee was active in the rule making, then we considered the agency to have consulted with an advisory committee. Similarly, we identified regulatory negotiations as instances in which the agency mentioned that a negotiated rule-making committee was involved in the development of the rule. Through this process, we concluded that agencies used advisory committees in fifteen instances and conducted four regulatory negotiations.

This approach facilitates the identification of instances in which these types of consensual rule making were important enough to merit mention in the final rule. It does not account for instances in which consensual rule making played an unmentioned, and presumably minor or perfunctory, role.³ This restriction is reasonable given our interest in assessing the performance of consensual rule making as an instrument of rule development. In other words, it makes sense to analyze the expediency of consensual rule making in instances in which it was a noteworthy part of the process. In addition, other ways of identifying the use of consensual rule making are problematic in important respects. For example, asking agency officials and stakeholders to make this identification would be difficult for a large number of rules, as would relying on agency records other than readily available public notices.

Controlling for Other Determinants of the Duration of Rule Making

The time it takes to develop a rule is plausibly a function of a variety of agency and rule characteristics (Eisner 1989; Hawkins and Thomas 1989; Kerwin and Furlong 1992).⁴

Rule Characteristics

Rules vary in substantive complexity. Some rules, such as the Health Care Financing Administration's rule on Medicare hospital payments, draw heavily on economic, scientific, and technical information. Other rules, such as the FCC's rule requiring hearing aid compatible telephones in locations such as workplaces, hotels, and nursing homes, address relatively uncomplicated issues. The application of economic, scientific, and technical information can slow rule making in two central ways (U.S. Congress 1977). First, if the necessary information does not exist, a substantial amount of time may elapse while it is developed. Second, it may take the agency time to determine how to use information about which there is controversy or disagreement (Eisner 1989). We measure substantive complexity as the number of pages in the proposed rule, on the assumption that there is a positive relationship between length and complexity (Kerwin and Furlong 1992).

Some rule makings revise rules that are already in existence. For example, in 1996 the Nuclear Regulatory Commission amended its schedule of licensing, inspection, and annual fees. It is plausible that it takes less time to revise rules than to establish new requirements and standards (e.g., it was likely less difficult for the commission to adjust its fees than to create the fee schedule in the first place). We assess this possibility through an indicator of whether the rule revised an existing rule.

Some rules address activities that take place in a particular period. In 1996, the National Highway and Traffic Safety Administration (NHTSA) issued a rule setting the corporate average fuel economy standard for model year 1998 light trucks. The Fish and Wildlife Service annually issues a number of rules establishing frameworks for migratory bird hunting seasons. We expect that these types of rules were developed relatively quickly, given the time-specific nature of their provisions.

In some rule makings, stakeholders were given the opportunity to submit comments prior to publication of the proposed rule. For example, the EPA solicited comments on its rule establishing emissions standards for engines used in lawnmowers and garden tractors by circulating an advance notice of the proposed rule making. This type of comment period potentially reduces the time that elapses between publication of the proposed rule and promulgation of the final rule, as it provides stakeholders

with a chance to express their preferences and agencies with a chance to incorporate these preferences into their proposals.

Agency Characteristics

Agencies can be divided into several broad categories, such as Cabinet departments, independent agencies, and government corporations (Meier 2000). These distinctions are important in that certain procedural requirements apply to only particular types of agencies. For example, independent regulatory agencies are exempt from the requirement to provide the Office of Management and Budget (OMB) with extensive information about significant rules, including justifications of their need, analyses of their costs and benefits, and assessments of their consistency with presidential priorities. The development of this information, and OMB's review of it, potentially increases the duration of rule making (Kerwin and Furlong 1992; National Academy of Public Administration 1987). We therefore include an indicator of whether the source of the rule was an independent regulatory agency.

The nature of agency rule-making agendas varies over time. For example, after the Safe Drinking Water Act was amended in 1996, the EPA's Office of Ground Water and Drinking Water initially spent much of its time laying out a timetable for developing the requisite rules. As time elapsed, the agency's focus increasingly shifted toward drafting these rules, and in 1998 it issued rules on surface water treatment and disinfectants and disinfection by-products. It is plausible that the period between publication of the proposed rule and promulgation of the final rule is generally longer when agencies are finalizing relatively large numbers of rules, as substantial agency resources are often needed to process comments and address stakeholder discontent with proposals. For example, in 1991 the Health Care Financing Administration received nearly one hundred thousand comments on its proposed schedule of Medicare physician fees and reassigned staff from other projects to expedite the handling of these comments. We examine the importance of the opportunity costs associated with this type of reallocation through the proportion of the agency's rule-making agenda for which the next step is "to publish a final rule or an interim final rule or to take other final action" (Regulatory Information Service Center 1998, 61,205).⁵

Estimation Issues

There are two main issues that affect our approach to estimation. The first is that we are interested in explaining the occurrence of a particular type of event—the promulgation of final rules. As Alt, King, and Signorino (2001) point out, data recording the occurrence of events can be arranged in several ways. For example, duration variables measure the time that elapses before events occur, while count variables measure the number of events that occur in specific periods. Given that the dependent variable measures the number of days that elapsed between publication of the proposed rule and promulgation of the final rule, duration analysis is an appropriate approach to estimation (Allison 1984; Greene 1993). Duration analysis models the likelihood that an event occurs in a given interval, given that it had not occurred prior to that interval.

There are a variety of ways in which duration models can be estimated but “few firm guidelines” for model selection (Bennett and Stam 1996, 244). There are two major issues to consider when selecting a model: whether to use a semiparametric or parametric model, and, if the latter, which parametric model is most appropriate. Semiparametric models, such as the Cox model, make relatively few assumptions about duration dependence, the relationship between the passage of time and the occurrence of events. This feature is useful because misspecification of duration dependence can lead to incorrect substantive inferences. Since we have no prior expectations regarding duration dependence, we have chosen to focus on results generated by the Cox model. However, given that parametric models are preferable to the Cox model if their assumptions accurately characterize the actual pattern of duration dependence, we also ran the analysis using a variety of parametric models, both monotonic and nonmonotonic in their specification. In all cases, the results did not differ meaningfully from those of the Cox model.

The second issue that affects our approach to estimation is endogeneity or selection bias. As discussed earlier, consensual rule making may be applied to proceedings that are distinct in their likely duration. This possibility has significant inferential implications (Achen 1986). If agencies generally use consensual rule making under favorable conditions, then estimates of its effect will exaggerate its expediency. Conversely, if agencies generally use consensual rule making in difficult situations, then estimates

of its effect will mask its efficacy. With this in mind, an appropriate approach is to estimate a treatment effects model (Achen 1986; Greene 1993). This model consists of two equations, the first of which addresses the selection process (whether the agency used consensual rule making) and the second of which addresses the outcome (the number of days that elapsed between publication of the proposed rule and promulgation of the final rule). Probit analysis is used to estimate the selection equation.⁶ The results of this estimation are used to calculate a variable that accounts for selection bias. This variable is then included in the outcome equation. If the variable is a significant predictor of the duration of rule making, then selection bias is present at a level that warrants concern and the treatment effects model is preferable to estimation that does not take selection bias into account.

The outcome equation is estimated through ordinary least squares (OLS) regression. King (1988) points out that applying OLS to data measuring the occurrence of events produces a variety of problems, such as inefficient estimates and predictions that are less than zero. We thus face a trade-off between accounting for selection bias in the use of consensual rule making and using an estimator that reflects the process underlying the issuing of final rules. With this trade-off in mind, we report the results of both Cox and treatment effects models, in tables 1 and 2, respectively.

Results

Tables 1 and 2 each report the results of three equations, the first of which assesses the efficacy of advisory committees, the second of which assesses the expediency of regulatory negotiation, and the third of which assesses the aggregate effect of these types of consensual rule making. The results of the Cox model indicate that there is a positive relationship between advisory committee use and the number of days that elapsed between publication of the proposed rule and promulgation of the final rule.⁷ One interpretation of this finding is that advisory committee use increased the duration of rule making. This interpretation is defensible, as illustrated by OSHA's rule on occupational exposure to methylene chloride. The agency presented its proposed rule to the Advisory Committee on Construction Safety and Health, which established a work group to investigate methylene chloride use and exposure in the construction industry. After several months of research, the advisory com-

mittee provided OSHA with extensive information and numerous recommendations. In response to this input, OSHA convened public hearings and extended the deadline for submitting comments. Consultation with the advisory committee therefore likely increased the time it took OSHA to finalize the rule.

Another interpretation is that this result is a function of selection bias. Agencies may have consulted with advisory committees on rules that would have taken a relatively long time to develop no matter what the procedural environment. The results of the treatment effects model, however, do not support this interpretation. The variable that accounts for selection bias is not significant, indicating that the likelihood with which agencies consulted with advisory committees was not related to

TABLE 1. Cox Model of the Duration of Rule Making

| Variable | Parameter Estimate (standard error) | | |
|---|--|------------------|------------------|
| Whether the agency consulted with an advisory committee | -.57** (.27) | | |
| Whether the agency conducted a regulatory negotiation | | -.50 (.75) | |
| Whether the agency consulted with an advisory committee or conducted a regulatory negotiation | | | -.67*** (.21) |
| Number of pages in the proposed rule | -.002 (.002) | -.003 (.002) | -.002 (.002) |
| Whether the rule revised an existing rule | -.26 (.25) | -.29 (.26) | -.30 (.25) |
| Whether the rule addressed activities occurring in a particular period | 3.41*** (.31) | 3.45*** (.29) | 3.37*** (.30) |
| Whether there was a comment period prior to publication of the proposed rule | .34 (.34) | .27 (.35) | .32 (.34) |
| Whether the agency was an independent regulatory agency | .58*** (.21) | .60*** (.19) | .55*** (.20) |
| Proportion of the agency's rule-making agenda in the final rule stage | 1.17** (.51) | 1.14*** (.43) | 1.04** (.48) |
| Log likelihood | -643.32 | -645.05 | -642.34 |
| Likelihood ratio χ^2 | 211.88*** | 186.71*** | 184.81*** |
| N | 170 | 170 | 170 |

Note: The standard errors are robust and adjusted for clustering on agencies.

* indicates statistically significant at $p < .10$, one tailed.

** indicates statistically significant at $p < .05$, one tailed.

*** indicates statistically significant at $p < .01$, one tailed.

the duration of rule makings. In addition, the estimate for the indicator of advisory committee use is positive and significant ($p < .09$). Given the absence of serious selection bias, this result suggests that advisory committee use, if anything, slowed the development of final rules. This interpretation is consistent with the aforementioned skepticism about advisory committees voiced by supporters of regulatory negotiation (Harter 1982).

According to the Cox model, the time it took to finalize rules was not affected by the use of regulatory negotiation. The treatment effects model, however, suggests that this result is a function of selection bias.

TABLE 2. Treatment Effects Model of the Duration of Rule Making

| Variable | Parameter Estimate (standard error) | | |
|---|--|--------------------------|-----------------------|
| Whether the agency consulted with an advisory committee | 650.75* (484.63) | | |
| Whether the agency conducted a regulatory negotiation | | 2,334.23** (1,263.34) | |
| Whether the agency consulted with an advisory committee or conducted a regulatory negotiation | | | 978.42*** (380.01) |
| Number of pages in the proposed rule | .63 (.76) | .22 (1.11) | .07 (.87) |
| Whether the rule revised an existing rule | 30.22 (61.30) | 73.48 (72.74) | 57.82 (64.93) |
| Whether the rule addressed activities occurring in a particular period | -487.58*** (72.47) | -492.58*** (97.66) | -457.80*** (74.13) |
| Whether there was a comment period prior to publication of the proposed rule | 53.70 (70.59) | 49.60 (109.08) | 62.54 (78.38) |
| Whether the agency was an independent regulatory agency | -143.60** (80.41) | -169.97** (91.32) | -96.81 (82.73) |
| Proportion of the agency's rule-making agenda in the final rule stage | -336.93** (194.03) | -199.93 (257.57) | -196.58 (217.07) |
| Constant | 560.05*** (94.21) | 535.60*** (109.11) | 459.50*** (104.41) |
| Selection bias variable | -216.49 (252.66) | -943.01** (550.94) | -387.04** (201.60) |
| F-statistic | 9.26*** | 10.61*** | 10.61*** |
| N | 170 | 170 | 170 |

* indicates statistically significant at $p < .10$, one tailed.

** indicates statistically significant at $p < .05$, one tailed.

*** indicates statistically significant at $p < .01$, one tailed.

The selection bias variable is negative and significant, indicating that agencies were more likely to apply regulatory negotiation to rule makings of relatively short duration. The estimate for the regulatory negotiation variable demonstrates that, once this selection bias is taken into account, there is a positive relationship between the use of regulatory negotiation and the number of days that elapsed between publication of the proposed rule and promulgation of the final rule. Although this result is consistent with Coglianesi (1997), it is striking in that consensual rule making is thought to be most efficacious in the proposed rule-final rule period, as the period preceding the proposed rule is characterized by extensive stakeholder consultation and negotiation (Eisner 1984; Harter 1982; Susskind and McMahon 1985).

Three factors are associated with decreases in the amount of time it took agencies to issue final rules. The first factor is that the rule addressed time-specific activities such as the FCC's rule on the assessment and collection of regulatory fees in fiscal year 1996. Agency type was also related to the duration of rule making in that independent regulatory agencies issued final rules at a faster rate than other agencies. The last factor, which is contrary to our expectation, is the proportion of the agency's rule-making agenda that was in the final rule stage.

In sum, the analysis demonstrates that both agency and rule characteristics affected the number of days that elapsed between publication of the proposed rule and promulgation of the final rule. Most importantly, it provides evidence that advisory committees and regulatory negotiation, if anything, increased the time it took to finalize rules. These results generally hold across the Cox and treatment effects models and therefore are not likely attributable to selection bias or the use of an estimate that does not reflect the process underlying the issuing of final rules.

Discussion

The time it takes to develop rules has been a principal concern of scholars and policymakers for decades. In recent years, consensual rule making has attracted widespread attention as a way to reduce delay in the issuing of rules. In particular, it is widely thought that regulatory negotiation, when used in appropriate circumstances, provides stakeholders and agencies with a forum through which obstacles to rule making can be removed early in the process. Our research demonstrates, to the contrary, that rules to which regulatory negotiation was applied took

longer to issue than those developed through conventional proceedings, despite the fact that agencies were more likely to conduct regulatory negotiations in situations that were amenable to relatively rapid resolution. In general, we find no evidence that consensual rule making reduces the time it takes to develop rules.

These findings have important policy implications because a variety of organizations, such as former vice president Gore's much-publicized National Partnership for Reinventing Government, have endorsed consensual rule making as a way to streamline decision making in the federal bureaucracy. The partnership's support for consensual rule making was one element of a broader initiative intended to enhance public trust in government. This initiative rested on the notion that the responsiveness of policymakers, of which expediency is one component, greatly affects citizen satisfaction with government (Almond and Verba 1973). Our results, however, suggest that consensual rule making does not reduce bureaucratic delay and therefore is not likely to foster positive perceptions of government performance.

Regardless of its expediency, consensual rule making affects the benefits received and costs incurred by parties with a stake in agency actions. For this reason, the decision to use consensual rule making has important distributional consequences. Although our analysis, in particular the treatment effects model, accounts for this decision, it does not provide a comprehensive assessment of the factors that affect the use of consensual rule making. In recent years, scholars have improved our understanding of bureaucratic policymaking by viewing the selection of structure and process as a function of the transaction costs associated with alternative institutional arrangements (Huber and Shipan 2002). One logical extension of our research is to analyze more thoroughly the conditions under which policymakers turn to consensual rule making.

Previous research on bureaucratic structure and process may also provide an explanation for our finding that consensual rule making does not reduce the time it takes to develop rules. Positive theorists contend that structural and procedural constraints, such as empowering groups of stakeholders to conduct studies on issues that arise during rule makings and requiring agencies to secure the support of these groups prior to proposing rules, are in part designed to facilitate political control of the bureaucracy (McCubbins, Noll, and Weingast 1987, 1989). These constraints work by increasing agency reliance on stakeholder information and by de-

laying bureaucratic action. Although costly, delay provides stakeholders with an opportunity to observe agency decision making and protest prospective policies with which they are dissatisfied. Elected officials can then take steps to prevent agencies from issuing policies that are inconsistent with the interests of influential stakeholders. If this account is accurate, then it is unlikely that approaches to rule making that enhance stakeholder involvement and interaction, such as advisory committee and regulatory negotiation, will generally expedite the issuing of rules.

Even if consensual rule making does not speed bureaucratic action, it may be beneficial in other respects. For example, it may reduce the incidence of litigation, as stakeholders play a direct and substantial role in the development of rules and therefore are not likely to object fundamentally to agency policies (Harter 1982; Kerwin 1999; Susskind and McMahon 1985). Coglianesi (1997), however, presents evidence that legal challenges were mounted against at least half of the rules that the EPA developed through regulatory negotiation between 1983 and 1996. In roughly the same period, lawsuits were filed against only 31 percent of clean air rules and 43 percent of hazardous waste rules developed through conventional proceedings. Although this evidence suggests that consensual rule making does not reduce the incidence of litigation, additional research is needed to assess this relationship more fully. For example, it is not clear that Coglianesi's findings hold for agencies other than the EPA or when factors other than the structure and process of rulemaking, such as agency and rule characteristics, are taken into account. In general, research on the effects of consensual rule making is in its early stages, and researchers should continue to evaluate its performance on a variety of dimensions. This research is important in that it can inform both scholarly debates about bureaucratic structure and process and policymakers' decisions regarding the use of consensual rule making.

Notes

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1. These decisions were aided by the fact that agencies often use terms such as *advance notice of proposed rule making* and *supplementary notice of proposed rule making* to denote notices that precede and follow proposed rules.

2. The terms are *advisory, committee, board, council, group, panel, task force, work group, working group, negotiate, negotiation, and regneg* (a commonly used phrase that refers to regulatory negotiation).

3. Nor does this approach identify cases in which consensual rule making failed to bring stakeholders together and the agency neglected to mention this failure in the final rule. Our experience, however, is that agencies generally highlight important procedural milestones, in failure as well as success. For example, the process leading up to the 1994 publication of a proposed rule on Indian self-determination and education assistance was documented thoroughly in the *Federal Register*, even though the proposal was vehemently opposed and ultimately scrapped by the issuing agencies.

4. Unless otherwise noted, the sources for the explanatory variables are GAO reports on major rule makings and the texts of the final rules.

5. The source of this variable is the *Unified Agenda*, a publication in the *Federal Register* in which agencies provide information about their regulatory plans. As part of these reports, agencies list their activities by rule-making stage. We divided the number of actions in the final rule stage by the total number of active rule makings (i.e., long-term actions and rule makings in the prerule, proposed rule, and final rule stages).

6. The probit equation includes all the explanatory variables discussed earlier except the indicator of rules addressing activities that take place in a particular period, as consensual rule making was not applied to any of these rules. It also includes two variables not included in the outcome equation: (1) the number of advisory committees located in the agency and (2) the number of reports issued by the agency's advisory committees. We expect these variables to be positively related to the use of consensual rule making, assuming that agencies with relatively large numbers of advisory committees and advisory committees that are relatively active are more likely than other agencies to use consensual rule making to develop particular rules. This expectation is borne out for second variable but not the first.

7. In table 1, a negative (positive) estimate indicates that increases in the explanatory variable are associated with decreases (increases) in the likelihood of publication of the final rule and thus an increase (decrease) in the duration of rule making.