

RULEMAKING IN THE SHADE: AN EMPIRICAL STUDY OF EPA’S AIR TOXIC EMISSION STANDARDS

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INTRODUCTION

Open government and equal access to decisionmaking processes are cornerstones that ensure an accountable and democratically legitimate Fourth Branch. The major statutes that govern administrative policymaking—the Administrative Procedure Act (APA),¹ the Federal Advisory Committee Act,² the Freedom of Information Act,³ and the Government in the Sunshine Act⁴—advance these principles. They do so by providing formal opportunities for all interested parties to comment on proposed rules and place data, studies, and other information into the public record that then can serve as a basis for challenging agency decisions in court.⁵ While there are disagreements about whether interest group

1. Administrative Procedure Act (APA), 5 U.S.C. § 500 (2006).

2. Federal Advisory Committee Act, 5 U.S.C. app. § 2 (2006).

3. Freedom of Information Act (FOIA), 5 U.S.C. § 552 (2006).

4. Government in the Sunshine Act, 5 U.S.C. § 552b (2006).

5. APA, 5 U.S.C. §§ 553(c), 706; see Richard B. Stewart, *The Reformation of American*

representation is the best way to ensure government accountability, there are few disagreements that this is currently the method of choice in administrative law.⁶

What remains much less settled, however, is whether or how well these pluralistic mechanisms of oversight are working in the large and important area of informal rulemakings. At one end of the spectrum, there is a good deal of optimism that vigorous and balanced engagement in informal rulemakings is occurring successfully, particularly in areas of social regulation like environmental law. Professor James Q. Wilson, for example, observes that the Environmental Protection Agency (EPA) "has had to deal with as many complaints and lawsuits from environmentalists as from industry, despite the economic and political advantages industry presumably enjoys."⁷ In their study of interest group politics, Professors Burdett Loomis and Allan Cigler conclude that by the early 1980s, a "participation revolution" had arisen comprised of citizens and special interest groups seeking collective material benefits for the public at large.⁸ Professor Christopher Bosso adds to this positive characterization in his study of pesticide politics: "[b]y the mid-1980s, however, we find a diversity in representation that, on the surface at least, gives pluralists some vindication."⁹ More recently, in his book on public interest regulation,

Administrative Law, 88 HARV. L. REV. 1667, 1723, 1748 (1975) (documenting and critiquing the liberalization of standing rules and the resulting greater judicial oversight of agency rulemakings through what he calls the "interest representation" model).

6. Stewart in particular expressed great skepticism that broad participation rights would transfer naturally to the vigorous representation of all interests affected by the regulatory proceedings. See Stewart, *supra* note 5, at 1763; see also *id.* at 1803 (stating that "[f]ull implementation of the formal participation and standing rights that are central to the interest representation model of administrative law would enormously increase the expense of the administrative process and might, in practice, increase the barriers to participation by interests that are not well-organized or affluent"). See also Edward Rubin, *It's Time to Make the Administrative Procedure Act Administrative*, 89 CORNELL L. REV. 95 (2003) (arguing that the current version of the APA, which relies on public participation, should be amended to reflect a modern, administrative form of governance).

7. James Q. Wilson, *The Politics of Regulation*, in *THE POLITICS OF REGULATION* 385 (James Q. Wilson ed., 1980).

8. Burdett A. Loomis & Allan J. Cigler, *Introduction: The Changing Nature of Interest Group Politics*, in *INTEREST GROUP POLITICS* 1, 11 (Allan J. Cigler & Burdett A. Loomis eds., 1983) (opining that "[t]he free-rider problem has proven not to be an insurmountable barrier to group formation, and many new interest groups do not use selective material benefits to gain support").

9. CHRISTOPHER J. BOSSO, *PESTICIDES AND POLITICS: THE LIFE CYCLE OF A PUBLIC ISSUE* 245 (1987). This is in part because "[e]nvironmental policies, by their nature, prompt acrid disputes among equally determined and almost permanently mobilized sets of claimants because they exhibit structures of incentives more contagious to conflict than do agricultural subsidies or water projects." *Id.* at 252.

Professor Steven Croley argues that “[w]hile one can still distinguish among regulatory decisions according to the amount of public attention they generate or the number of outside participants they involve, few agency decisions with significant stakes escape public attention or participation completely. Regulatory decisionmaking is seldom done in the dark anymore.”¹⁰

At the other end of the spectrum, a number of scholars, particularly in the political sciences, question whether administrative processes actually provide this type of balanced access to and influence over the rulemaking process for all affected groups.¹¹ A common thread in this literature is the superior influence over agencies that business groups enjoy by virtue of their organization and financial resources.¹² Business groups further benefit from the agencies’ need for information that only regulated interests can provide.¹³ The resultant, regular communications between agency officials and industry are alleged to induce the former to see the world through the eyes of the latter.¹⁴

Lying just beneath these general debates over *who* participates in publicly important rules is the equally important question of *how* they participate. In administrative law, notice and comment is the formal vehicle that provides affected parties with equal access to agency rulemakings.¹⁵ Yet over the last decade there have been suggestions that in practice, notice-and-comment rulemaking may only be the tip of the iceberg in providing avenues for interest groups to inform agencies’ rulemaking projects.¹⁶ Specifically, considerable negotiations may take place between the agency and interest groups during the development of the rule and also after the promulgation of the final rule that fall wholly outside of the APA’s

10. STEVEN P. CROLEY, REGULATION AND PUBLIC INTERESTS: THE POSSIBILITY OF GOOD REGULATORY GOVERNMENT 291–92 (2008).

11. See *infra* notes 32–37 and accompanying text.

12. See, e.g., JOHN E. CHUBB, INTEREST GROUPS AND THE BUREAUCRACY: THE POLITICS OF ENERGY 251 (1983) (concluding from his study that interest group participation in energy policymaking consists almost exclusively of “the most technically competent groups”—i.e., industry).

13. See, e.g., RONALD J. HREBENAR, INTEREST GROUP POLITICS IN AMERICA (3d ed. 1997) 261–62 (discussing a range of ways that regulated parties can control agencies, including by wearing them down with information-intensive claims).

14. See, e.g., MARVER H. BERNSTEIN, REGULATING BUSINESS BY INDEPENDENT COMMISSION (1955); Samuel P. Huntington, *The Marasmus of the ICC: The Commission, the Railroads, and the Public Interest*, in PUBLIC ADMINISTRATION AND POLICY 58 (Peter Woll ed., 1966).

15. See APA, 5 U.S.C. § 553 (2006).

16. See, e.g., William F. West, *Inside the Black Box: The Development of Proposed Rules and the Limits of Procedural Controls*, 41 ADMIN. & SOC’Y 576 (2009).

regulatory reach, both in terms of the required recordkeeping and in equalizing access to the agency at key points in policy development.¹⁷ Similar imbalances may occur for related reasons during the notice-and-comment process itself, at least for rulemakings that become so bloated with technicality, complexity, and the fragmentation of issues into minutiae that the rulemaking project becomes practically inaccessible to less resourceful groups.¹⁸

Despite the diversity of views regarding how well this administrative process is working, surprisingly little empirical work has been conducted on the nature and effects of public participation in federal rulemakings.¹⁹ A critical reason for this gap is the difficulty in obtaining and analyzing data. Methodological barriers also impede empirical study of the capacity of legal procedures to ensure that federal agencies are publicly accountable and that their rules fairly reflect the public interest.²⁰ Fortunately, the empirical work that has been done on the administrative system has produced not only important findings, but also some significant methodological breakthroughs.²¹ This work suggests that interest group imbalances may be occurring throughout administrative law and provides new and promising tools for exploring these imbalances in greater detail.

In an effort to build on preceding empirical research, in this Article we trace the engagement and to a lesser extent, the influence of interest groups over the entire life cycle of a complete set of complex EPA rules that set emissions standards for the industrial release of air toxins. In particular we focus on three of the most worrisome phases of administrative process where imbalances in interest group engagement and influence may be occurring. The thesis of this study is that imbalances in interest group engagement are occurring at critical, albeit somewhat obscure stages of the

17. See *infra* Parts I.B.1 and I.B.2.

18. See *infra* Part I.B.3.

19. See, e.g., Steven J. Balla, *Between Commenting and Negotiation: The Contours of Public Participation in Agency Rulemaking*, 1 I/S: J.L. & POL'Y FOR INFO. SOC'Y 59, 67 (2005) (highlighting the dearth of research on interest group engagement in rulemakings); Scott R. Furlong & Cornelius M. Kerwin, *Interest Group Participation in Rule Making: A Decade of Change*, 15 J. PUB. ADMIN. RES. & THEORY 353, 355 (2005) (discussing research about interest group participation in rulemaking); William F. West, *Formal Procedures, Informal Processes, Accountability, and Responsiveness in Bureaucratic Policy Making: An Institutional Policy Analysis*, 64 PUB. ADMIN. REV. 66, 70-72 (2004) (describing work by several authors regarding participation in rulemaking).

20. See, e.g., CROLEY, *supra* note 10, at 125-33 (discussing various methodological and data barriers to studying the administrative process); Jason Webb Yackee & Susan Webb Yackee, *A Bias Towards Business? Assessing Interest Group Influence on the U.S. Bureaucracy*, 68 J. POL. 128 (2006).

21. See *infra* notes 39-45 and accompanying text.

rulemaking life cycle and that these imbalances are impacting the substance of the rulemaking project.

This Article proceeds in five parts. Part I explores three stages in the rulemaking life cycle that may be afflicted with imbalanced interest group engagement that in turn might distort the outcome of the rulemaking project. Part II describes the methods of the Article, which examine the nature of interest group engagement and activity at these problem stages in a complete set of rules promulgated by EPA governing the industrial emissions of air toxics. Part III describes the findings, and Part IV collects information from disparate sources in detective-like fashion to explain some of the surprises and new questions that emerge from this research. In the Conclusion, we retell the story that emerges from our data and consider whether it suggests more pervasive problems in administrative law that will benefit from further study.

I. INTEREST GROUPS AND ADMINISTRATIVE LAW: BACKGROUND AND PROBLEM AREAS

Interest group participation is vital to ensuring the accountability and legitimacy of the administrative state, yet this participation also carries the potential to derail the work of agencies in ways that cause rulemakings to depart substantially from the four corners of the authorizing statute and the goals of public interest regulation. This Part provides a brief orientation to the conflicting role of interest groups in administrative process and then focuses on three phases of administrative process that appear most at risk of suffering from imbalances in interest group participation and influence.

A. *Interest Group Representation and Administrative Accountability*

Rigorous engagement by a diverse and balanced assortment of affected interests, reinforced by an ability of these interests to challenge regulations in court, provide one of the primary mechanisms to ensure at least some democratic legitimacy of the administrative state. Professor Rubin observes that this pluralistic engagement is so important to current conceptions of administrative process that the APA is essentially a one-trick pony: “All of its basic provisions rely on a single method for controlling the actions of administrative agencies, namely, participation by private parties.”²² Even in the Attorney General’s Report that helped make the case for passage of the APA, the need for this pluralistic oversight of agencies was considered pivotal to the success of the administrative state: “Participation by these [economic and community-based] groups in the rule-making process is

22. Rubin, *supra* note 6, at 101.

essential in order to permit administrative agencies to inform themselves and to afford adequate safeguards to private interests.”²³ As Professor Rubin points out, moreover, a “due process” orientation runs throughout administrative process to ensure that affected parties are able to hold the agency accountable, not only in receiving their input, but in taking that input into account.²⁴ Notice-and-comment rulemaking, in particular, is designed to open the door to any and all information that a party wishes to provide.²⁵

Yet while the opportunity to lodge comments is a vital step that ensures that the agency is adequately educated about the issues, the comment process, standing alone, does not ensure that the agency will take the comments seriously. Indeed, throughout the 1960s and 1970s, there was increasing concern about “regulatory capture,” which generally (but not always) referred to the deployment of various financial inducements (i.e., the prospect of future employment, gifts, or bribes) by regulated parties to co-opt individual regulators.²⁶ In cases of these financially based forms of agency capture, all the information and comments in the world cannot budge agency staff from their predetermined course of favoring regulated parties in the development and enforcement of regulations.²⁷

23. ATT'Y GEN. COMM. ON ADMIN. PROCEDURE, FINAL REPORT OF THE ATTORNEY GENERAL'S COMMITTEE ON ADMINISTRATIVE PROCEDURE 103 (1941).

24. See, e.g., Rubin, *supra* note 6, at 111 (arguing that some of the APA's procedural requirements are modeled after “due process” protections in adjudication).

25. See, e.g., *id.* at 114 (“Once the notice is given, anyone may send the agency a comment, and agencies always accept these comments (indeed, how could they not, unless they returned the envelope for insufficient postage?”)). A rule can even be remanded if the agency has neglected—however inadvertently—to make a complete library of relevant documents available for commenters to use in formulating their arguments. See, e.g., *Gerber v. Norton*, 294 F.3d 173, 181–82 (D.C. Cir. 2002) (holding that the Fish and Wildlife Service's failure to make the map of an offsite mitigation area available for public viewing in the issuance of an incidental take permit deprived plaintiff of the meaningful opportunity to comment and required that the case be remanded back to the agency).

26. See, e.g., Ernesto Dal Bó, *Regulatory Capture: A Review*, 22 OXFORD REV. OF ECON. POL'Y 203, 214–16 (2006) (emphasizing the research on the revolving door form of capture). Indeed, a recent illustration of this traditional agency capture is the Minerals Management Service's (MMS's) cozy relationship with the oil industry: the oil industry offered future employment opportunities (the revolving door), provided various gifts, and nurtured supportive and even intimate relationships with individual regulators. See Dan Froomkin, *Regulatory Capture of Oil Drilling Agency Exposed in Report*, HUFFINGTON POST (Sep. 8, 2010, 6:30 PM), http://www.huffingtonpost.com/2010/09/08/report-illustrates-regula_n_709681.html.

27. See generally Nicholas Bagley & Richard L. Revesz, *Centralized Oversight of the Regulatory State*, 106 COLUM. L. REV. 1260, 1284 (2006) (observing how capture theory is based on the premise that well-organized groups gain an advantage through contributing votes and resources); Michael E. Levine & Jennifer L. Forrence, *Regulatory Capture, Public Interest, and the*

At the urging of both commentators and judges, the courts emerged in the 1970s as a critical counterforce to address the problem of this more traditional form of regulatory capture. While the APA requires the agency to “consider” comments in promulgating the final rule,²⁸ without the ability to sue the agency when it failed in this duty, the requirement was unenforceable. Liberalized standing requirements developed by the courts in the 1970s ultimately allowed public interest groups to file suit against captured rules that were also arbitrary, thus providing some assurance that the worst cases of capture would likely be caught.²⁹ Some courts even engaged in hard look review, which provided the agency with still a greater risk of being caught in cozy relationships with a narrow slice of interested parties.³⁰ The resulting design of administrative process evolved to depend on a diverse and broad set of interest groups to provide both input and oversight of the agencies.³¹

Even with this new and vigorous oversight facilitated by the courts, however, there remained concerns about other forms of capture of the administrative machinery by regulated parties. As early as the 1980s, top theorists in political science developed conceptual models that predicted that most institutionally based capture, resulting from intrinsic limits in the ability of diverse groups to participate, might occur in rulemaking settings where complexity was high and the costs of regulation was concentrated on a narrow group of well-financed stakeholders. In his classic four-quadrant

Public Agenda: Toward a Synthesis, 6 J.L. ECON. & ORG. 167, 178 (1990) (describing capture theory as the “adoption by the regulator for self-regarding (private) reasons, such as enhancing electoral support or postregulatory compensation, of a policy which would not be ratified by an informed polity free of organization costs”).

28. 5 U.S.C. § 553(c) (2006). See generally MARTIN SHAPIRO, WHO GUARDS THE GUARDIANS? JUDICIAL CONTROL OF ADMINISTRATION 44–49 (1988) (discussing the history of administrative law since 1946 and how the goal of expanding access to government led to the rule whereby interested groups could provide comments to rulemaking agencies that these agencies must consider); Stewart, *supra* note 5, at 1717–60 (discussing broadly the importance of responding to comments in surviving judicial review).

29. See, e.g., Thomas W. Merrill, *Capture Theory and the Courts: 1967–1983*, 72 CHI.-KENT L. REV. 1039, 1043 (1997) (“[T]he courts’ assertiveness during the period from roughly 1967 to 1983 can be explained by judicial disenchantment with the idea of policymaking by expert and nonpolitical elites. . . . The principal pathology emphasized during these years was ‘capture,’ meaning that agencies were regarded as being uniquely susceptible to domination by the industry they were charged with regulating.”).

30. See, e.g., *Ethyl Corp. v. EPA*, 541 F.2d 1, 68 (D.C. Cir. 1976) (Leventhal, J., concurring) (arguing for hard look review).

31. In his book, Professor Croley provides compelling case studies of high-visibility rules promulgated by several agencies, including EPA, that were subjected to impressive displays of public interest advocacy made possible by these overriding commitments to open and equal access to government. See CROLEY, *supra* note 10, at 242.

typology of regulation, for example, Professor James Q. Wilson predicts that when the benefits of a policy are diffused across the population and the costs are concentrated on a small group of regulated parties, the agency is more at risk of capture unless a charismatic entrepreneur emerges who acts as the “vicarious representative” of the public beneficiaries.³² Professor Gormley similarly predicted that for rules that are highly complex and non-salient, “board room politics” will prevail (i.e., a single set of interests work closely with the agency to develop the rule in a relatively nontransparent setting).³³ Moreover, in both settings capture occurs not only through inducements by regulated parties, but because regulated parties enjoy primary access to and control over critical information needed by agencies, with only limited oversight from other watchdog groups due to the low salience and high complexity of the rulemakings.

Although theoretical models on interest group engagement in rulemakings have not developed much beyond those originated by Gormley and Wilson in the 1980s, subsequent analysts have identified specific ways that legitimate administrative processes can be hijacked by a narrow group of affected parties at the expense of advancing the broader public interest. For example, various forms of “sophisticated sabotage” involve utilizing the tools of administrative law to control how issues are framed, conceived, and communicated.³⁴ Highly resourceful parties can also play information games to gain an edge in the regulatory proceedings. More than thirty years ago, Professors Owen and Braeutigam underscored how stakeholders’ “ability to control the flow of information to the regulatory agency is a crucial element in affecting decisions.”³⁵ Based on this power, they observe how these stakeholders can make available “carefully selected facts,” withhold others, and if delay is useful, “flood[] the

32. See Wilson, *supra* note 7, at 367–70 (1980). Professor Wilson’s four quadrants of politics categorize regulation according to the distribution of benefits (concentrated or diffuse) on the one hand, and the distribution of costs (concentrated or diffuse) on the other. The specific categories include not only “entrepreneurial politics,” in which benefits are broad but the costs of a policy are concentrated, but also “majoritarian politics,” in which society in general incurs both the benefits and the cost of the policy; “interest-group politics,” in which both the costs and benefits of a policy are concentrated on a narrow set of interests; and “client politics,” in which the benefits of a policy accrue to a narrow set of interests and the costs are spread over the entire population. *Id.*

33. See William T. Gormley, Jr., *Regulatory Issue Networks in a Federal System*, 18 *POLITY* 595, 607 (1986).

34. See generally THOMAS O. MCGARITY, SIDNEY SHAPIRO & DAVID BOLLIER, *SOPHISTICATED SABOTAGE: THE INTELLECTUAL GAMES USED TO SUBVERT RESPONSIBLE REGULATION* (2004).

35. BRUCE M. OWEN & RONALD BRAEUTIGAM, *THE REGULATION GAME: STRATEGIC USE OF THE ADMINISTRATIVE PROCESS* 4 (1978).

agency with more information than it can absorb.”³⁶ When the agency seeks a particularly damaging piece of information that can’t be legally withheld, the interest group’s “best tactic is to bury it in a mountain of irrelevant material” or provide it, but simultaneously “deny its reliability and . . . commence a study to acquire more reliable data.”³⁷

Recent empirical evidence provides support for the possibility that this institutional capture is in fact occurring in some areas of administrative practice. Several different researchers find systematic biases that favor regulated parties in rules promulgated by several different agencies, including agencies like EPA that are generally viewed as resistant to traditional forms of agency capture.³⁸ Specifically, Professors Yackee & Yackee,³⁹ Golden,⁴⁰ Coglianese,⁴¹ and Cropper et al.⁴² all conducted studies that assess the diversity of interest group representation in environmental

36. *Id.*

37. *Id.* These techniques can also be deployed in more adversarial settings to overcome the opposition’s efforts. For example, “[i]f another party has supplied damaging information, it is important to supply contrary information in as technical a form as possible so that a hearing is necessary to settle the issues of ‘fact.’” *Id.* The authors even advise the regulated parties to deploy decentralized information systems so that officials can be selected who can testify truthfully on what they know, but be carefully protected from other, conflicting or damaging sources of information. *Id.*

38. See, e.g., CROLEY, *supra* note 10, at 290–96; RENA STEINZOR & SIDNEY SHAPIRO, *THE PEOPLE’S AGENTS AND THE BATTLE TO PROTECT THE AMERICAN PUBLIC: SPECIAL INTERESTS, GOVERNMENT, AND THREATS TO HEALTH, SAFETY, AND THE ENVIRONMENT* 45–47 (2010); Sally Katzen, *A Reality Check on an Empirical Study: Comments on “Inside the Administrative State,”* 105 MICH. L. REV. 1497, 1505 (2007) (drawing upon her stint as Administrator of the Office of Information and Regulatory Affairs (OIRA) under President Clinton to state EPA focuses like a laser on protecting the environment).

39. See Yackee & Yackee, *supra* note 20, at 131, 133 (studying forty lower-salience rulemakings promulgated by four different federal agencies and finding that business interests submitted 57% of comments, whereas nongovernmental organizations submitted 22% of comments, 6% of which came from public interest groups).

40. See generally Marissa Martino Golden, *Interest Groups in the Rule-Making Process: Who Participates? Whose Voices Get Heard?*, 8 J. PUB. ADMIN. RES. & THEORY 245 (1998) (studying eight rules promulgated by federal agencies using content analysis to determine who participates and influences federal regulations and finding citizen engagement in five of the eight rules).

41. Professor Coglianese estimated that EPA promulgated 334 rules per year from 1986 to 1990. See Cary Coglianese, *Challenging the Rules: Litigation and Bargaining in the Administrative Process* 73, tbl.2-2 (1994) (unpublished Ph.D dissertation, University of Michigan) (on file with authors) (finding businesses participating in 96% and national environmental groups participating in 44% of rules).

42. See, e.g., Maureen L. Cropper et al., *The Determinants of Pesticide Regulation: A Statistical Analysis of EPA Decision Making*, 100 J. POL. ECON. 175, 178, 187 (1992) (examining interest group engagement in pesticide registrations between 1975 and 1989 and finding environmentalists participated in 49% of the cancellations).

and public health rules and each find the public interest groups absent from about half of the rules in their data set. In three of these four studies, moreover, the analysts found public interest groups were substantially outnumbered by regulated parties even when they did participate.⁴³ Golden and Yackee & Yackee went still further and actually tested whether regulated parties enjoyed more influence over the changes made by the agency in the final rule. Yackee & Yackee detected a distinct "bias toward business" in which the changes made to the final rule tended to favor regulated parties rather than the public interest.⁴⁴ Golden, on the other hand, found that in general the agencies resisted making any major changes to the rule, and when they did make changes, the changes tended to favor commenters who supported the proposed rule over the critics.⁴⁵

B. Rulemaking in the Shade

Even though administrative process considers sunlight as the best disinfectant,⁴⁶ it is also true as Professor Strauss notes, that "candor and the flexibility necessary for collaboration or compromise are more likely to flourish in the shade."⁴⁷ The thesis of this Article is that it is in these shaded or partly shaded areas where much of the regulatory work gets done. In particular, this Article builds on prior findings of aggregate evidence of industry bias in rulemakings by examining three of the shadiest stages within the agency's own rulemaking life cycle in search of evidence of interest group imbalance and bias.⁴⁸ At each of these stages, there are

43. See Coglianese, *supra* note 41, at 73; Golden, *supra* note 40, at 247; Yackee & Yackee, *supra* note 20, at 133.

44. See Yackee & Yackee, *supra* note 20, at 133–35.

45. See Golden, *supra* note 40, at 262.

46. Louis Brandeis, *What Publicity Can Do*, HARPER'S WEEKLY, Dec. 20, 1913, available at <http://www.law.louisville.edu/library/collections/brandeis/node/196>.

47. Peter L. Strauss, *The Place of Agencies in Government: Separation of Powers and the Fourth Branch*, 84 COLUM. L. REV. 573, 595 (1984).

48. Office of Management and Budget (OMB) review constitutes another worrisome shady area given the lack of transparency of OMB input, as well as the forces motivating OMB review. See, e.g., Nina A. Mendelson, *Disclosing "Political" Oversight of Agency Decision making*, 108 MICH. L. REV. 1127 (2010) (discussing the lack of transparency in OMB review). In this Article, we examine only those stages of the rulemaking where the agency is engaged directly with interested parties and leave for a later time an investigation of the OMB-induced shade in rules that could potentially lead to even greater distortions in interest group representation. See generally Lisa Schultz Bressman & Michael P. Vandenbergh, *Inside the Administrative State: A Critical Look at the Practice of Presidential Control*, 105 MICH. L. REV. 47, 78, 86 (2006) (conducting this type of investigation at a broad scale); Steven Croley, *White House Review of Agency Rulemaking: An Empirical Investigation*, 70 U. CHI. L. REV. 821, 822–23 (2003) (examining presidential involvement in rulemaking).

opportunities for skewed interest group engagement and influence, in part as a result of the complexity and information intensiveness of the rulemaking task and in part as a result of the agency's own incentives to mollify litigious stakeholders in order to get their rule promulgated in a reasonable period of time. Individually, each of these stages can lead to some distortions in the diversity of interest groups that participate; cumulatively these stages may reveal systematic skews in the practical accessibility of the rulemaking process to the full range of affected stakeholders.

1. Rule Development (the Pre-Notice of Proposed Rulemaking (NPRM) Period)

The first opportunity for imbalanced interest group input into rulemakings occurs during the formative development of a proposed rule. The basic administrative process focuses interest group activity on an open notice-and-comment process, where parties comment on the agency's proposed rule.⁴⁹ Based on these comments, the agency may then revise the rule in final form and, if the agency arbitrarily rejects comments, it can be sued in the court of appeals.

Ironically, however, the emphasis on developing a proposed rule that is ready for comment pushes a great deal of the policymaking and true regulatory work earlier in the process, during the rule development stage.⁵⁰ Indeed, the courts have made it painfully clear that if a rule is to survive judicial review, it must be essentially in final form at the proposed rule stage.⁵¹ Material changes made after this point require a new notice-and-comment process and may even require the agency to start over.⁵² To

49. APA, 5 U.S.C. § 553 (2006).

50. See, e.g., West, *supra* note 16, at 580 (noting the irony of how mechanisms for institutional accountability may tend to shift the actual policymaking to an earlier point in the process where the mechanisms are not in full effect).

51. See, e.g., *Shell Oil Co. v. EPA*, 950 F.2d 741, 757–63 (D.C. Cir. 1991) (holding that the agency failed to provide meaningful notice-and-comment opportunities on issues in the final rule; the issues were raised by commenters during the notice-and-comment process); *Weyerhaeuser Co. v. Costle*, 590 F.2d 1011, 1021–22 (D.C. Cir. 1978) (finding the same result as the *Shell* case); see also *Env'tl. Integrity Project v. EPA*, 425 F.3d 992, 995–98 (D.C. Cir. 2005) (vacating an EPA rule setting forth monitoring requirements because the agency “flip flopped” after notice and comment and the final rule was not a logical outgrowth of the proposed rule, thus violating the APAs notice-and-comment requirements); see generally *Chocolate Mfrs. Ass'n v. Block*, 755 F.2d 1098 (4th Cir. 1985) (holding that the Department of Agriculture failed to provide meaningful notice-and-comment opportunities on issues in the final rule).

52. See, e.g., Jack M. Beermann & Gary Lawson, *Reprocessing Vermont Yankee*, 75 GEO. WASH. L. REV. 856, 893–900 (2007) (criticizing courts for adding the requirement that agencies go through a second notice-and-comment process when the final rule is not the

avoid the need to make material changes, the agency is eager to “get it right the first time.”⁵³ Thus a basic incentive for agencies to produce nearly complete proposed rules arises from the courts’ commitment to due process, which demands that interested parties have an opportunity to comment on all significant aspects of a proposed rule.⁵⁴

Given these incentives, working relationships, primarily with regulated parties, are likely to form at the pre-proposal stage in large part to minimize the need to make “material changes” after notice and comment. Industry enjoys a particularly privileged position in the development of rules like the air toxic emission standards because industry possesses a great deal of in-house information on industrial processes that EPA needs to write the rules.⁵⁵ For agency staff eager to get the final rule in place so as to create some binding requirement on the polluting activities of industry, then, such pre-NPRM collaborations become legal necessities. Even agency staffers skeptical of industry claims may actively seek out industry’s help in developing the proposed rule to reduce the risk of successful challenges down the road. As one agency staffer put it, “[w]e help them; they help us.”⁵⁶

“logical outgrowth” of the proposed rule and discussing how this requirement impedes agency adaptability to new information during the notice-and-comment period). See generally RICHARD J. PIERCE, JR., 1 ADMINISTRATIVE LAW TREATISE § 7.3 (4th ed. 2002) (discussing the extensive case law on whether an agency’s notice was adequate based on subsequent developments occurring after the proposed rule in the course of the rulemaking).

53. West, *supra* note 16, at 582 (quoting a senior attorney in the agency); see, e.g., E. Donald Elliott, *Re-Inventing Rulemaking*, 41 DUKE L.J. 1490, 1495 (1992) (“Because of the need to create a record, real public participation—the kind of back and forth dialogue in which minds (and rules) are really changed—primarily takes place in various fora well in advance of a notice of proposed rulemaking appearing in the *Federal Register*.”).

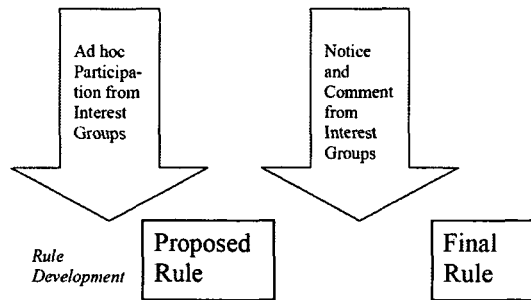
54. Cf. Rubin, *supra* note 6, at 111 (arguing that this type of procedural requirement is modeled after “due process” protections in adjudication).

55. See *infra* notes 87–88 and accompanying text. For example, one attorney interviewed in the Field and Robb report observed,

The reason that the Agency is generally receptive to well-reasoned technical comments . . . is that if you point out specific problems with a regulatory program, then those drafting the rules will generally try to solve those problems. They will do so not only because they want to appear to be reasonable and responsive to public comments, but also because their willingness to refine a regulatory program—to address identified flaws in the program—should help that program withstand judicial review.

Andrea Bear Field & Kathy E.B. Robb, *EPA Rulemakings: Views from Inside and Outside*, 5 NAT. RESOURCES & ENV'T 9, 50 (1990).

56. Coglianese, *supra* note 41, at 14.



Hypothesis: *Agency contacts with affected parties during rule development (pre-NPRM) will be extensive and will be dominated by regulated parties.*

At the same time that legal incentives encourage the agency to engage with interest groups in general and regulated parties in particular in advance of notice and comment, the agency at this stage is also free of docketing and related APA transparency requirements. The agency is required to log *ex parte* contacts in the public record only after publishing the proposed rule and generally not before.⁵⁷ By contrast, letters, conferences, meetings, telephone conversations, shared drafts of a proposed rule, and the like occurring during the development of the proposed rule are not limited and need not even be recorded in the rule's administrative record if the agency prefers to keep them under wraps.⁵⁸

Several administrative law theorists have expressed concern that this pre-NPRM rule development phase may largely eclipse the significance of the notice-and-comment period with respect to interest group input.⁵⁹ These

57. *See, e.g., Home Box Office, Inc. v. FCC*, 567 F.2d 9, 57 (D.C. Cir. 1977) (holding that "communications which are received prior to issuance of a formal notice of rulemaking do not, in general have to be put in a public file. . . . [But once] a notice of proposed rulemaking has been issued . . . any agency official or employee who is or may reasonably be expected to be involved in the decisional process of the rulemaking proceeding, should [avoid *ex parte* contacts and place any such contacts in the public file]").

58. Interested parties engaged in these communications, however, will include them in the administrative record when it suits their purposes. In some cases, interest groups even request EPA background documents through FOIA and include them in their comments to make sure they are part of the record. *See, e.g., William F. Pedersen, Jr., Formal Records and Informal Rulemaking*, 85 YALE L.J. 38, 68–70 (1975) (observing that "this tactic [to use FOIA to access agency documents and then to communicate them back to the agency to ensure that they make their way into the administrative record] has worked fairly well for those who use it, even though the statute probably wasn't intended for that purpose").

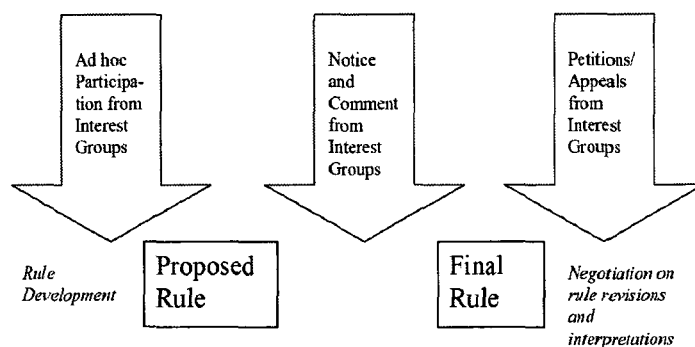
59. *See, e.g., Furlong & Kerwin, supra* note 19, at 353 (noting the possibility for important participatory opportunities in the development of the proposed rule); CORNELIUS M. KERWIN, *RULEMAKING: HOW GOVERNMENT AGENCIES WRITE LAW AND MAKE POLICY* 73–85 (3d ed. 2003) (discussing participation in the various stages of rulemaking); West, *supra*

scholars also hypothesize that during the rule development stage, interest group contacts may not be anywhere close to diverse or balanced.⁶⁰

As an empirical matter, however, little is known about the rule development phase.⁶¹ West, Kerwin, and Coglianese conducted extensive interviews with agency staff, which only serve to reinforce the possibility that this phase is an important part of rulemaking.⁶² However, beyond their research, there has been very little empirical work into the extent or role of pre-NPRM discussions.

2. *After the Rule Is Final (the Post-Final Period)*

A second opportunity for ad hoc, unrecorded interest group influence of agency rules arises after the rule is promulgated as final. At this point, interest groups can file petitions for reconsideration and ultimately appeal the rule to the Court of Appeals.⁶³ Yet, short of taking a case all the way through court, there are numerous opportunities for invisible negotiations and reconciliations that could affect the substance of the rule, perhaps in dramatic ways.



Hypothesis: *After the rules are promulgated as final, interest group activity will continue on a significant percentage of them and revisions will be made to the rules that*

note 16, at 580–82, 584–85 (arguing that the pre-NPRM period provides rich opportunities for informal contacts and engagement by agencies with stakeholders).

60. In particular, and as discussed earlier, this “prenotice participation is *potentially* subject to the alleged bias in favor of the ‘special interests’ or ‘subgovernment actors’ that notice-and-comment requirements are designed to counter.” West, *supra* note 16, at 589.

61. “Scholars have practically ignored these earlier processes” that occur during rule development. *Id.* at 583.

62. See, e.g., Furlong & Kerwin, *supra* note 19, at 354, 362–65; KERWIN, *supra* note 59, at 64; West, *supra* note 16, at 584–85 (using interviews to probe the opportunity for interested parties to participate in rulemaking).

63. See APA, 5 U.S.C. §§ 701–706 (2006) (describing the appropriate scope of judicial review).

reflect these post-final negotiations. Regulated parties will again dominate this interest group activity.

In his unpublished study of EPA rulemakings, Professor Coglianese observes that post-rule "litigation offers interest groups and the agency an opportunity to do something they were not permitted to do in the notice-and-comment period: negotiate in secret."⁶⁴ Administrative rules governing ex parte participation again do not apply in this post-final stage, and in fact, "settlement negotiations between interest group and EPA attorneys hold an added degree of secrecy given their privileged status."⁶⁵ Because of their privileged status, these agreements can even help "immunize agency officials from oversight by third parties such as the Office of Management and Budget."⁶⁶

In a way that parallels the opportunities for input during rule development, then, interest groups are allowed a second bite at the apple after the rule is final. Changes to guidances, enforcement protocols, and other non-rule documents emerging from the post-final rule discussions can be made with no public notice, despite their potentially substantial impact on how the rule is implemented.⁶⁷ A trade association's general counsel elaborated: "[Litigation] is often a vehicle to kind of lead to a revision of regulations. . . . There are a number of cases that are filed and automatically stayed because we are filing them just so we go back to the agency and basically kind of renegotiate the regs."⁶⁸ Another corporate counsel remarked, "It is almost like having another rulemaking with those people who care enough about the issues to spend the time, being the ones

64. Coglianese, *supra* note 41, at 153.

65. Cary Coglianese, *Litigating within Relationships: Disputes and Disturbance in the Regulatory Process*, 30 LAW & SOC'Y REV. 735, 758 (1996); see also Jim Rossi, *Bargaining in the Shadow of Administrative Procedure: The Public Interest in Rulemaking Settlement*, 51 DUKE L.J. 1015, 1029-30 (2001) (describing the problematic features of the secrecy of many of the settlements); Jeffrey M. Gaba, *Informal Rulemaking by Settlement Agreement*, 73 GEO. L.J. 1241, 1254 (1985) (discussing potential secrecy of rulemaking settlements).

66. Coglianese, *supra* note 41, at 190.

67. See, e.g., Gaba, *supra* note 65, at 1245-48 (describing the types of substantive agreements that can be reached in settlement agreements); see Patrick Schmidt, *Pursuing Regulatory Relief: Strategic Participation and Litigation in U.S. OSHA Rulemaking*, 4 BUS. & POL. 71 (2002), (highlighting the significance of rulemaking settlements that lead to changes in interpretive guidance); cf. Richard G. Stoll, *Coping with the RCRA Hazardous Waste System: A Few Practical Points for Fun and Profit*, 1 ENVTL. HAZARDS 6, 6-7 (1989), reprinted in ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 257, 257-58 (Robert C. Percival, et al. eds., 2d. ed. 1996) (describing how EPA's private letters, obscure guidance documents, and hidden statements in unrelated final rule preambles have given industry participants considerable room to "play" while remaining compliant with hazardous waste rules).

68. Coglianese, *supra* note 41, at 127 (alteration in original).

who get to play.”⁶⁹ Even more troubling is the fact that, in some cases, these post-rule settlement negotiations may actually undo some of the pluralistic gains made earlier in the process. Professor Coglianese, for example, observed that

[i]n the wood preserving rule, the 267 individuals and groups filing comments on the rule narrowed down to three groups in court. Greenpeace and the Environmental Defense Fund were extremely active in the rulemaking, but did not enter the litigation. As a result, positions these environmental groups successfully advanced in the rulemaking were later directly undercut in the litigation process.⁷⁰

Again, the administrative process indirectly facilitates these post-final rule deals.⁷¹ Interested parties can threaten to hold up the rule in litigation, which can take years to resolve and ultimately may end in a reversal and remand of the rule to the agency.⁷² Faced with this uncertain fate for health-protective rules, agencies may find that further compromises are preferable to continued delay of the rule. Regulated parties may also have a leg up in gaining the agencies' attention because they are more likely to seek out claims that lead to rule delays, compared with environmental groups, who might choose remedies that avoid vacating a rule entirely.⁷³

The extent to which rulemaking challenges are ultimately settled by agencies like EPA is unknown, but there is evidence that it might be a relatively common occurrence.⁷⁴ There is also evidence that the form a

69. *Id.* at 131.

70. *Id.* at 153.

71. *See, e.g.*, Elizabeth Fisher & Patrick Schmidt, *Seeing the 'Blind Spots' in Administrative Law: Theory, Practice, and Rule-making Settlements in the United States*, 30 COMMON L. WORLD REV. 272, 288 (2001) (concluding that rulemaking settlements “are an unintended consequence of the system as it structured”).

72. *See, e.g.*, *Arteva Specialties S.A.R.L. v. EPA*, 323 F.3d 1088, 1092 (D.C. Cir. 2003) (remanding to EPA for clarification of a standard).

73. *See, e.g.*, *Sierra Club v. U.S. EPA*, 167 F.3d 658, 664 (D.C. Cir. 1999) (noting the plaintiff environmental group specifically requested the court to remand, but not vacate, the challenged rule promulgated by EPA).

74. *See, e.g.*, Gaba, *supra* note 65, at 1247 & n.26 (suggesting that EPA “has relied extensively on such agreements to implement major portions of its water, hazardous waste, and air programs”; and also pointing out that “[n]o filing system at the EPA could record the number or percentage of regulations preceded by a settlement agreement”); Rossi, *supra* note 65, at 1018 (observing that “[a]gencies routinely enter into settlements limiting the scope of their regulatory discretion”). Professor Coglianese found that “nearly half of all the petitions for review filed against EPA in the DC Circuit Court of Appeals between 1979 and 1990 ended with a voluntarily dismissal by the parties—before any oral hearing was held by a judge.” Coglianese, *supra* note 65, at 756 (footnote omitted). *See also* Robert V. Percival, *The Bounds of Consent: Consent Decrees, Settlements and Federal Environmental Policy-making*, 1987 U. CHI. LEGAL F. 327 (discussing the usefulness of consent decrees and the disadvantages to

rulemaking settlement takes varies widely with regard both to its terms and its transparency.⁷⁵ Despite the seemingly significant empirical and theoretical questions that rulemaking settlements raise, they remain largely unexplored in the administrative law literature.⁷⁶

3. *The Notice-and-Comment Process in Complex Rulemakings*

Finally, the notice-and-comment process itself may be “open” to all, but in practice accessible to only a few, at least when rules are very complex and technical. This occurs because of the important role of information costs in impeding engagement.⁷⁷ When a rule preamble is highly technical, complex, and exceedingly lengthy, and the issues are fractured into minute subparts, then the costs of understanding and processing the rule, and hence participating in the comment period, can be quite high. While expert, sophisticated public interest groups may be able to penetrate these costly rules, even they will lack resources to engage in all of them and may find they must dedicate resources to only a few.

Yet, if an interested party does not lodge detailed comments with the

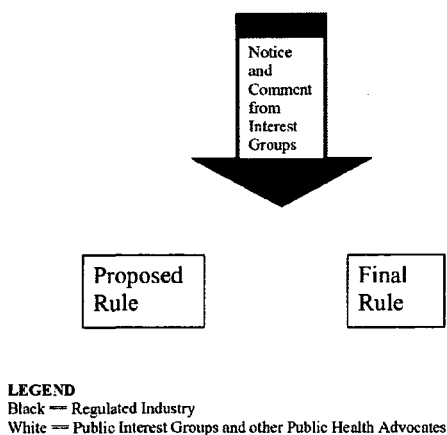
restricting their application); Peter M. Shane, *Federal Policy Making by Consent Decree: An Analysis of Agency and Judicial Discretion*, 1987 U. CHI. LEGAL F. 241 (discussing rulemaking settlements and efforts to limit them). Interestingly, some of the earlier literature discussing these settlements gives the impression that they largely occurred with public interest groups rather than industry. See, e.g., Jeremy A. Rabkin & Neal E. Devins, *Availing Government by Consent Decree: Constitutional Limits on the Enforcement of Settlements with the Federal Government*, 40 STAN. L. REV. 203, 274, 278 (1987) (discussing public interest use of rulemaking settlements).

75. See, e.g., Fisher & Schmidt, *supra* note 71, at 282–87 (detailing the various types and consequences of rulemaking settlements in broad terms); Gaba, *supra* note 65, at 1246–47 (discussing the various forms of settlement agreements); see also *supra* notes 64–66 and accompanying text (regarding transparency of rulemaking settlements).

76. See, e.g., Fisher & Schmidt, *supra* note 71, at 288–89 (bemoaning the lack of attention to rulemaking settlements, highlighting it as an illustration of a blind spot in existing administrative law theory, and calling for more empirical research on them as well as other blind spots). It is not that there is no literature, however. For the most comprehensive analyses of potential problems with rulemaking settlements, see Gaba, *supra* note 65, at 1255 (concluding that “[s]ettlement agreements work because of their secrecy and enforceability. Both of these ‘advantages’ raise questions about the legitimacy of the process and the final regulations it produces” and discussing these misgivings in considerable detail). See also Rossi, *supra* note 65, at 1031–32, 1044–57 (raising questions about the accountability of rulemaking settlements and offering suggestions for reform); Citizens for a Better Env’t v. Gorsuch, 718 F.2d 1117, 1136 (D.C. Cir. 1983) (Wilkey, J., dissenting) (lamenting the “evil[s] of . . . consent decree[s]” as methods for settling rulemaking disputes that involve policy considerations).

77. See Wendy E. Wagner, *Administrative Law, Filter Failure, and Information Capture*, 59 DUKE L.J. 1321, 1379 (2010) (crediting the higher cost to nonprofits of accessing and mastering technical information with participation disparity relative to industry counterparts).

agency during this critical phase of the rule's life cycle, then it waives the opportunity to file an appeal later, and at least as a legal matter, loses all of its legal leverage.⁷⁸ The agency has no legal obligation to consider comments shared outside of the comment period.⁷⁹ Information costs that are high in rulemakings, then, can also work as a barrier to diverse participation by all affected parties and allow the more informed and better resourced to effectively dominate the proceedings.



Hypothesis: *The formal comments lodged on a complex rule will come predominantly from regulated industry, and the changes made to the proposed rule in the final rule will mirror this imbalance and generally favor industry.*

Thus, for highly complex and technical rules, the comment activity may be skewed in favor of industry, with the resulting rulemakings operating at least in partial shade, free of oversight and input from the full range of affected groups, particularly those representing the public interest. Indeed, to the extent that regulated parties have an advantage in understanding the nuances of the proposed rule as a result of their extensive pre-NPRM communications, the barriers to outsiders may be still higher. The agency's underlying logical processes and assumptions may be relatively obscure in its proposed rule, for example, which will require commenters to engage in added detective work and time-consuming re-creations of the agency's

78. See generally *McKart v. United States*, 395 U.S. 185 (1969) (setting out the reasons for exhausting remedies first within the agency before raising the issue with the court).

79. See, e.g., *Mossville Envtl. Action Now v. EPA*, 370 F.3d 1232, 1238–40 (D.C. Cir. 2004) (holding that public interest groups had waived several challenges to EPA's Hazardous Air Pollutants rule because they had failed to file written comments and exhaust their administrative remedies and the state comments they attempted to rely on were not specific enough to provide EPA with notice of their concerns).

thought process in order to understand key decisions.⁸⁰ These costs may serve as a particularly significant barrier to the ability of resource-limited groups to participate in the rulemaking process.

During the notice-and-comment process, moreover, credible comments are likely to translate directly into influence in affecting the shape of the final rule. Specifically, if each detailed and well-supported comment raises a litigation risk, then the agency can be expected to make changes roughly proportional to the total number of comments, rather than favoring the comments of an underrepresented constituency. In his case study of the Occupational Safety and Health Administration, Professor Schmidt found that formal comments were the most influential source of input precisely because they posed immediate risks of litigation.⁸¹ Additionally, and in this same vein, industry comments are likely to be more factually and technically oriented given industry's specialized knowledge and attentiveness to compliance-related details. These technical facts constitute a particular soft spot for the agency in litigation, and agencies are purported to be especially amenable to making changes in their final rules based on comments that are technical in nature.⁸²

4. Summary

Individually, each of these opportunities for skews in the influence of affected parties takes a toll on the resulting rule. Together they can act in mutually reinforcing ways to lead to a process that can be badly imbalanced, yet still follow every administrative process requirement to the

80. See, e.g., Wagner, *supra* note 77, at 1384–86.

81. See Schmidt, *supra* note 667, at 80, 82, 86–87.

82. See, e.g., Field & Robb, *supra* note 55, at 10 (noting that industry counsel agree that “[t]he arguments that stand the greatest chance of being listened to by the Agency are those that address technical aspects of a proposed rule rather than the legal basis of that rule”); see also *id.* at 50 (explaining that “the Agency is generally more receptive to [technical] comments . . . not only because [it] want[s] to appear reasonable and responsive to public comments, but also because [its] willingness to refine a regulatory program . . . should help that program withstand judicial review”). Moreover, if industry has already had extensive discussions with the agency to convince it to consider its material changes during the pre-NPRM, its formal comments are likely to be aimed primarily at chipping away at the rule on smaller details rather than radically reconfiguring the proposal. In contrast, the public interest groups’ primary concerns and comments may take on some basic framing decisions fundamental to the development of the rule. To the extent that these groups’ changes tend toward this more “material” direction, they are more likely to receive a chilly reception from the agency because they technically require the agency to promulgate a supplemental, or second, proposed rule, which involves an additional notice-and-comment process. In terms of the time involved, it may be quicker to reject these groups’ significant comments and risk being sued than to accept their changes and trigger notice and comment all over again.

letter.

II. STUDY DESIGN

This Article assesses interest group participation and influence during three stages of the rulemaking process for one set of highly technical rules promulgated by EPA and predicts imbalances in interest engagement at each stage. The hypotheses are provided below.

Statement of Hypotheses

Hypothesis 1: Agency contacts with affected parties during rule development (pre-NPRM) will be extensive and will be dominated by regulated parties.

Hypothesis 2: The formal comments lodged with the agency on a complex rule will come predominantly from regulated industry, and the changes made to the proposed rule in the final rule will track this imbalance and generally favor industry.

Hypothesis 3: After rules are promulgated as final, interest group activity will continue on a significant percentage of them and revisions will be made to the rules that reflect these post-final negotiations. Regulated parties will again dominate this interest group activity.

The hypotheses are tested by examining the rulemaking life cycle for ninety air toxic emission standards ($n=90$), which constitute nearly all⁸³ of the rules promulgated by EPA to restrict the release of air toxins from major sources.⁸⁴ These Hazardous Air Pollutants rules (HAPs rules) were selected for several reasons. First, the HAPs rules are relatively typical examples of pollution control standards promulgated by EPA. The standards, like many of EPA's other pollution control standards, are mandated by statute and promulgated under statutory deadlines.⁸⁵ The

83. The exclusion of some rules became necessary because of limitations in EPA's record keeping practices or because the rules diverged significantly from the others (i.e., they were promulgated under two or more statutes rather than just § 112 of the Clean Air Act, like medical waste incinerators). See Appendix for a more detailed discussion of these exclusions.

84. See 42 U.S.C. § 7412(d) (2006) (outlining emission standards); 40 C.F.R. Pt. 63 (1999) (discussing the ninety rules included in the Appendix sample).

85. See, e.g., Clean Water Act, 33 U.S.C. § 1321 (2006) (prohibiting the point source discharge of oil and other hazardous waste pollution without a permit that, in turn, is based on the capabilities of the best available technology); Resource Conservation and Recovery

rules also require EPA to base pollution control requirements on what it determines to be the best available emission control methods, a mandate similar to many other pollution control statutes.⁸⁶ Specifically, under § 112 of the Clean Air Act, EPA is required to survey currently available (or soon-to-be available) pollution control technologies for classes and categories of industry and to select the top performers in each industry category that emit the lowest level of air toxins.⁸⁷ EPA then converts the pollution reduction capabilities of these best performers into numerical emission limits for each major industrial source of HAPs.⁸⁸ These standards are the primary, and often the exclusive, means for reducing public exposure to air toxins.⁸⁹ Each of the rules in our study set emissions limits for a different segment of industry, so, for example, one rule sets emissions standards for boat manufacturing, another for cellulose product manufacturing, and another for coke ovens.⁹⁰ While the rules obviously affect very different types of industries, the rules are comparable insofar as each one of them typically follows the same analytical process (e.g., definition of affected industry, requirements for compliance, emission limitations, monitoring requirements, etc.).

EPA's HAPs rules have several other attributes for this Article that go beyond their representativeness as general pollution control standards.

Act (RCRA), 42 U.S.C. §§ 6923–6925 (2006) (requiring transporters and treatment, storage, and disposal units handling hazardous wastes to self-identify potential problem areas and follow regulatory requirements).

86. See, e.g., 33 U.S.C. § 1321; 42 U.S.C. §§ 6923–6925.

87. See 42 U.S.C. § 7412(d)(3) (2006) (requiring that emissions from existing plants should meet at least “the average emission limitation achieved by the best performing 12 percent of the existing sources”).

88. This step, which requires making assumptions about “average” industry pollution loads and how well the selected technology reduces pollution, can be quite controversial. EPA must become familiar with the capabilities of the nation’s industries, the variety of pollution control equipment available, and how this equipment actually works when employed in the field. See D. Bruce La Pierre, *Technology-Forcing and Federal Environmental Protection Statutes*, 62 IOWA L. REV. 771, 810–11 (1977) (specifying three steps in setting technology-based standards: (1) categorizing industries; (2) identifying the contents of their respective wastewaters; and (3) identifying the range of control technologies available); see also Sanford E. Gaines, *Decisionmaking Procedures at the Environmental Protection Agency*, 62 IOWA L. REV. 839, 853 (1977) (discussing questions regarding the effectiveness of pollution control technologies under various plant ages, sizes, and manufacturing conditions).

89. See generally Thomas O. McGarity, *Hazardous Air Pollutants, Migrating Hot Spots, and the Prospect of Data-Driven Regulation of Complex Industrial Complexes*, 86 TEX. L. REV. 1445 (2008) (describing the pivotal role of air toxins in reducing health risks and the resultant inadequacies in their enforcement).

90. See *National Emission Standards for Hazardous Air Pollutants (NESHAP)*, EPA, <http://www.epa.gov/ttn/atw/mactfnlalph.html> (providing the table of complete HAPs rules) (last visited Feb. 2, 2011).

First, these rules were promulgated by EPA, an agency that is generally regarded as resistant to traditional types of capture, such as revolving door employment, gifts, bribes, and cozy relationships.⁹¹ To the extent that the rulemaking process does seem to tip in favor of industry, then, this imbalance is more likely to be due to defects in administrative process rather than peculiar vulnerabilities in individual agency staff.⁹² Additionally, EPA promulgated the selected HAPs from 1994 through 2009, making the records easily accessible and offering a chance for comparison of two very different presidential administrations.

Two sources of information provide the bulk of the data analyzed in this study: the index of the rulemaking dockets and the significant changes made to the proposed rule, as described in the final rule preamble. These textual sources were coded into quantitative information using student coders who categorized information in the docket—e.g., interest group communication by type and date—with the resulting numerical data entered into Excel and analyzed with Stata, SAS, and R. These two sets of data are described in more detail below. Information was also collected from a variety of sources on post-final rule activity.

A. Coding the Docket Index

The most straightforward component of the study involved collecting information on the type and number of interest group contacts with the agency throughout the rulemaking process. The EPA's docket index, which is the record upon which the rule is reviewed by the courts, provided the sole source of this information. In these lengthy docket indices, EPA logs hundreds of contacts and communications from interest groups occurring throughout the entire life cycle of the rule, including years before the rule was published in the *Federal Register* as a proposal.⁹³ These docketed records provide information on the nature of the contact (e.g., letter, telefax, meeting), the affiliation of the party, and the date of the communication. Law students trained in the coding protocol then translated the interest group participation recorded in the dockets into quantitative information using a relatively straightforward coding scheme.

91. See *supra* note 39.

92. Preliminary interviews with a handful of public interest and agency staff strengthen the reliability of this presumption; we are considering conducting a more exhaustive set of surveys that will provide solid documentation of this fact.

93. EPA is not required to docket communications prior to the publication of the proposed rule. In the HAPs rules, however, EPA recorded extensive communications which, although not complete, provide a useful quantitative measure for assessing interest group participation. See *supra* note 83.

The coding scheme itemizes, dates, and categorizes each interest group communication with EPA. The Appendix discusses the methods in greater detail.

B. Coding the Significant Changes in the Proposed Rule

The actual influence of interest groups in affecting the final rule was measured by content-coding the final rule preambulatory discussion of the most significant comments received on the proposed rule and the changes the agency made in response. In these preambulatory discussions, EPA often lists dozens and even hundreds, of significant comments and resultant changes. Law student coders identified each of these significant comments and agency responses and coded them with regard to whether the agency subsequently weakened or strengthened the rule (i.e., eliminating requirements weakens a rule, adding comments or more stringent requirements strengthens a rule), as indicated in Figure 1. Each suggested change was coded separately and categorized by the nature of the comment (e.g., substantive, paperwork, compliance deadline). Measures of influence are thus based on EPA's own characterization of the significant comments and its response.⁹⁴ The Appendix discusses the methods in greater detail.

Type of Response/Change	Decline weaken	Decline strengthen	Agree to weaken	Agree to strengthen	Can't tell
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Figure 1: Measuring Influence by Tracking the Comments and Their Fates

EPA's discussion of the significant comments and resultant changes generally does not identify industry commenters by name, however. As a result, changes that "weaken" the rule are simply assumed to stem from industry, and changes that "strengthen" the rule are assumed to come from public interest groups. Since there was a significant, direct correlation between the number of industry comments and the number of changes made to weaken the rule, the results appear to support the assumption.⁹⁵ While in some cases the changes made to a rule may be substantively minor, even when added together, the coding scheme does provide some indication of the tilt in the final rule with regard to the total number of changes.

94. This study takes for granted that these characterizations are accurate, although in future research we hope to test the validity of this assumption.

95. See *infra* note 117 and accompanying text.

C. *Post-Final Rule Activity*

Finally, this Article traces interest group activity after the final rule is published to determine whether additional changes are made under the shadow of judicial review. EPA's entries in the *Unified Agenda* and its discussions in the *Federal Register* preambles provided the primary source of data to determine whether one or more interest groups ultimately petitioned for reconsideration of the final rule, challenged the rule in court, and whether the rule was revised after being promulgated as final and how often. The Appendix discusses these methods in greater detail.

III. RESULTS

Professor Elliott observes that “[n]otice-and-comment rulemaking is to public participation as Japanese Kabuki theatre is to human passions—a highly stylized process for displaying in a formal way the essence of something which in real life takes place in other venues.”⁹⁶ Professor Elliott, a former EPA General Counsel, recounts how much of EPA's regulatory analysis is informed not by notice and comment but “from informal meetings with trade associations and other constituency groups, to roundtables, to floating ‘trial balloons’ in speeches or leaks to the trade press.”⁹⁷

The findings of this study underscore both the accuracy and the importance of Professor Elliott's remarks. While notice and comment may not exactly amount to window dressing, the results of this study reinforce the possibility that a great deal of interest group influence occurs outside of the glass box of notice and comment.

The findings also suggest that once one looks at the entire life cycle of rulemakings, at least in this set of highly complex and technical pollution control rules promulgated by EPA, one observes systematic evidence of imbalance in interest group engagement and influence. In HAPs rulemakings, these imbalances tilt strongly in favor of regulated industry, resembling the type of “board room” politics that Gormley envisioned for rules that were generally not central to public health and environmental protection.⁹⁸

96. Elliott, *supra* note 53, at 1492.

97. *Id.* at 1492–93.

98. *See supra* note 33 and accompanying text.

Hypothesis 1: Agency contacts with affected parties during rule development (pre-NPRM) will be extensive and will be dominated by regulated parties.

In administrative law, the multiple benefits for interest groups to engage in negotiations with the agency during rule development, coupled with the legal incentives for the agency to “get it right the first time,”⁹⁹ coalesce to create a rulemaking climate in which pre-NPRM contacts can be expected to be quite extensive. The results from this study support these hypotheses, as shown in Figure 2. The rulemaking dockets reveal extensive engagement with outside stakeholders during the rule development stage. On average, the agency engaged in 178 contacts with interest groups (including states) during rule development—before publication of the proposed rule—for each of the ninety rules. More than half of these contacts were informal and were not in response to information requests. As discussed later, these informal contacts alone are, on average, more than double the number of comments received on the rule.

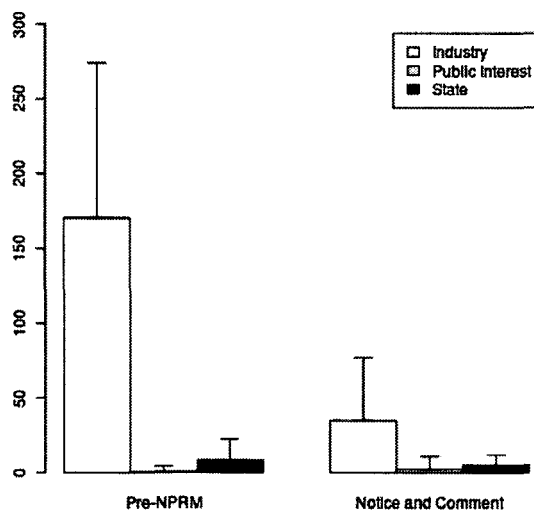


Figure 2: Interest Group Participation (Total Contacts) at Pre-NPRM and Notice-and-Comment Stages of Rulemaking

(The solid bars represent the mean number of contacts; the thin lines represent the standard deviation on these means).

99. West, *supra* note 16, at 582 (quoting a senior attorney at the department level of a federal agency).

An equally important finding is that this pre-NPRM period was almost completely monopolized by regulated parties.¹⁰⁰ Industry had, on average, at least 170 times more informal communications docketed with EPA during the pre-NPRM stage than public interest groups and more than ten times the informal contacts with EPA as compared with state regulators. Specifically, the data reveal extensive industry contacts made in the pre-NPRM stage for all rules under study. Industry informal contacts during the pre-NPRM stage averaged eighty-four per rule. This includes all forms of communications (i.e., meetings, phone calls, letters, etc.). Another eighty-six written communications per rule (on average) during the pre-NPRM stage involved formal information requests that resulted in additional correspondence between EPA and regulated parties. By contrast, the average number of public interest contacts during the pre-NPRM stage is 0.7 per rule, with about two-thirds of these contacts consisting of meetings rather than correspondence. State regulators logged nine contacts per rule on average during the pre-NPRM period. Figure 3 illustrates these disparities.

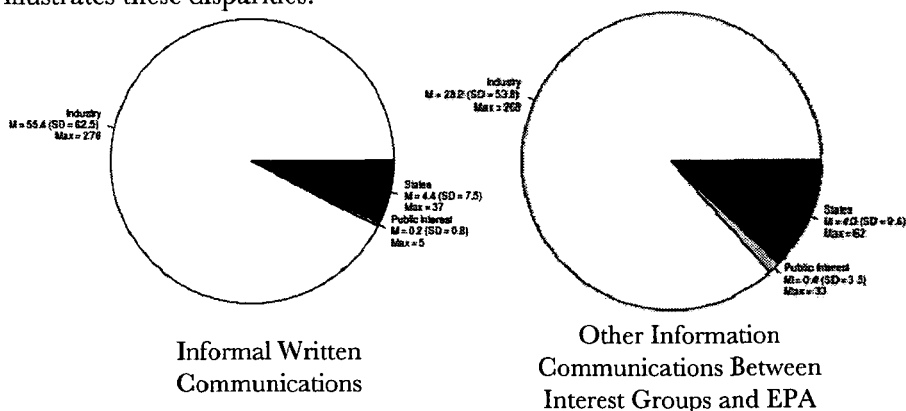


Figure 3: Interest Group Participation During Pre-NPRM by Type of Communication

(M=Mean; SD=Standard Deviation; Max=maximum value within the ninety rules). An additional 2% of communications came from regulated governments.

100. See Figures 2 and 3. In our study, and despite the fact that EPA is not required to log these contacts as a matter of law, EPA did record hundreds of these studies, contacts, and other information as part of its administrative record. As a legal matter, this may be a wise move. Because the rules are judged against the rulemaking record, evidence of extensive industry communications should help buffer the agency against accusations of sloppy or incomplete analysis, at least when the industry is the legal challenger. Discussions with former EPA employees suggest that when available, these contact logs are not substantially biased—that is, when EPA logged informal pre-NPRM contacts, they did so without regard to the source of the contact (e.g., industry, public interest, state, etc.).

The results provide one of the first, if not the only, quantitative measures of interest group contacts occurring during the development of a proposed rule by a federal agency. Available qualitative evidence reinforces the finding of significant imbalances in interest group participation at this stage. Based on more than forty interviews with EPA and stakeholders involved in EPA rules, for example, Professor Coglianese concludes that “[i]n the rule development phase, industry groups tend to dominate because of the information they can provide to the agency staff as they write a rule. . . . Corporations and trade associations get involved in the development of nearly every significant EPA rule.”¹⁰¹

What remains to be understood—to the extent that this is a trend that continues in other rulemaking areas—is why this imbalance in interest group engagement is so dramatic. One explanation is that a type of information symbiosis emerges between the agencies and the most knowledgeable and resourceful groups, at least in technology-based rules. The agency appreciates that the only way to get its rule through the process is to work closely with its fiercest allies early in the rulemaking process. Indeed, EPA’s own training materials openly encourage these early contacts with its adversaries. “[N]egotiation and consultation with outside parties are an important part of the rulemaking process at EPA [This contact] brings outside information and perspectives to the Agency’s decisions[,] . . . builds support for the Agency’s decisions[,] and increases the overall efficiency of EPA’s decision making process.”¹⁰² Professor Coglianese quotes an EPA official who further underscores the importance of close relations with industry during the development of the proposed rule:

We try to bring them in as early as possible on what we are required to do and request their help very early on and usually this is appreciated because that way they have input as opposed to EPA unilaterally going out and looking at various textbooks and writing rules that are ridiculous because we don’t fully understand what the hell we are regulating. So it works out better by working very closely with the people that we are going to regulate and we do this in various ways[.] We meet with them, we have industry-agency

101. Coglianese, *supra* note 41, at 75. Professor Coglianese’s dissertation is brimming with illustrative quotations. Among them is a quote from an EPA official who praised litigious trade groups for their diligence in assisting EPA, even after suing the agency for the same rule that the official helped developed: The trade association “cooperate[d] with the agency, bend[ing] over backwards to help us in any way that we wanted. All we had to do was ask and they would do that. It was literally a pleasure working with those people.” *Id.* at 191.

102. *Id.* at 48 (citing U.S. Environmental Protection Agency, Fact Sheet 12, Regulation Management Series (revised Feb. 1992)).

workgroups that will meet together.¹⁰³

Industry also likely appreciates that its best shot at having a significant influence is during the rule's formative stages. Legal counsel for industry participants advise them to "[g]et involved during the preproposal phase of an Agency rulemaking. That is when the regulation writers want reliable technical information . . . and are thus most receptive to comments from interested persons."¹⁰⁴ There are several accounts of industry not only commenting, but actually drafting the proposed rule as part of these pre-NPRM discussions.¹⁰⁵ For a variety of reasons, which include their more limited knowledge of industry-based technical issues central to the rulemaking, public interest groups might be expected to have a much weaker participatory presence at the pre-NPRM stage. Indeed, unlike industry, they may not even appreciate that policymaking work is underway because they do not receive letters seeking more information. Perhaps equally important, public interest groups may lack the resources to engage in this time consuming process that produces few opportunities for credit-taking, to the extent that their views prevail.

The results of this study lend support to the emerging view that administrative law needs to broaden its current focus on interest group engagement beyond the notice-and-comment and appeal processes. If the law creates incentives for the agency to attempt to prepare an essentially done deal at the proposed rule stage, then these incentives may have perverse effects on ensuring open, transparent, and balanced interest group engagement during the notice-and-comment process.¹⁰⁶ Yet, as discussed

103. *Id.* at 38–39.

104. Field & Robb, *supra* note 55, at 9.

105. *See id.* at 52 (crediting one attorney with pointing out the advantages of providing draft language for the proposed rule and concluding that "whatever the Agency does not take out [of your draft rule] reflects your thinking and has your perspective"). As an official in a corporate office explained with respect to involvement with EPA on a rule:

I led an effort—which took about 9 months—to develop using our internal design and operating practices for our [operations], to develop an actual regulation and a preamble and it wound up being a 300-page document with lots of technical data to submit to the agency before they even really started their regulatory process, as a way to influence their thinking on what it ought to look like. And we carefully tied it to the statutory mandate and documented all of the design standards and operating procedures that we used—why they were important, where they were used, what the benefits were—and put that in front of the agency well in advance of their process to influence how they went about it. It had a tremendous impact.

Coglianesse, *supra* note 41, at 47 (alteration in original).

106. *See, e.g.*, Jack M. Beermann & Gary Lawson, *Reprocessing Vermont Yankee*, 75 GEO. WASH. L. REV. 856, 893–900 (2007) (criticizing courts for adding the requirement that agencies go through a second notice-and-comment process when the final rule is not the "logical outgrowth" of the proposed rule and discussing how this requirement impedes

previously and with a few important exceptions, little attention has been given to this potentially important pre-NPRM stage with respect to interest group representation.¹⁰⁷ Instead, the bulk of scholarly attention, both empirically and within the administrative law literature, seems focused primarily on the notice-and-comment process.¹⁰⁸

Hypothesis 2: Formal comments lodged with the agency on complex rules will come predominantly from regulated industry, and the changes made to the proposed rule in the final rule will track this imbalance and generally favor industry.

As a simple matter of economics, participating in highly technical and complex rulemaking requires greater resources. These rules are therefore likely to attract less balanced engagement because interest groups' time and resources, particularly those advocating on behalf of the diffuse public, are limited.¹⁰⁹ The data support this hypothesis and reveal significant imbalances in participation in the engagement of interest groups during the notice-and-comment process. On average, industry comments (industry plus industrial associations) comprised over 81% of the comments submitted on the HAPs rules during the notice-and-comment period, as shown in Figure 4 below. Industry, moreover, participated in *all* of the rules at this important juncture in the rulemaking; public interest groups, by contrast, participated in less than half (48%) of the rules. When the public interest groups did participate, moreover, they were badly outnumbered by industry participants. The mean number of comments per rule filed by

agency adaptability to new information during the notice-and-comment period).

107. See, e.g., Balla, *supra* note 19, at 81–83 (providing some data on the extent of informal contacts with the agency that are not solicited through formal channels); West, *supra* note 19, at 70–72 (discussing opportunities for influence during pre-NPRM stage); Furlong & Kerwin, *supra* note 19, 362–66.

108. All the empirical studies to date focus exclusively on the notice-and-comment process as the touchstone for interest group engagement. See *supra* notes 39–45. See also Anne Joseph O'Connell, *Political Cycles of Rulemaking: An Empirical Portrait of the Modern Administrative State*, 94 VA. L. REV. 889 (2008).

109. Professor Neil Komesar observes that an individual's participation is based upon the relative costs and benefits of that participation, a calculation that varies not only by issue but by institution. When the costs of information are lowered and information becomes more accessible, participation increases. Similarly, when the benefits to participation rise—for example, through damage awards in tort claims—claimants' participation increases. See NEIL K. KOMESAR, *IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY* 8 (1994). It is the combination of lower costs and higher benefits that explains the comparative advantages of the tort system relative to the regulatory system in providing improved access to needed information regarding health and environmental protection.

public interest groups across all rules was 2.4 (4%) as compared to a mean number submitted by industry of thirty-five (81%) comments per rule.¹¹⁰

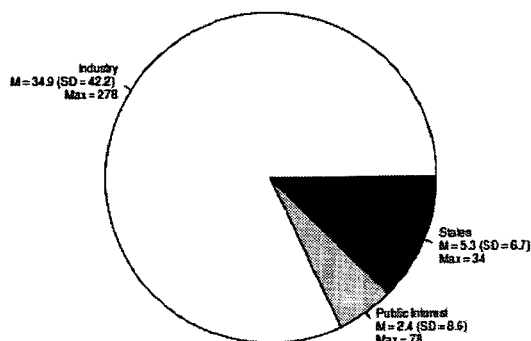


Figure 4: Interest Group Participation During the Notice-and-Comment Process

(M=Mean; SD=Standard Deviation; Max=maximum value within the 90 rules). An additional 7% of comments came from regulated governments and other/unknown groups.

Imbalances in interest group representation in the HAPs rules are greater than identified in other studies. Professors Yackee and Yackee found that for ten rules in each of four agencies, including EPA, business interests submitted over 57% of comments, whereas nongovernmental organizations submitted 22% and public interest groups submitted 6%.¹¹¹ In his study of the twenty-five significant rules promulgated by EPA from 1989 to 1991, Professor Coglianese found that businesses participated in 96% of the rules; national environmental groups participated in 44%.¹¹² Professor Coglianese does not report on the average number of comments filed by each group.

The influence of interest groups was also measured during the notice-and-comment period to determine whether EPA makes changes to the proposed rule in ways that generally track the comment activity.¹¹³ In

110. The mean number of comments filed per rule was thirty-nine, which appears to be slightly less comment activity than Yackee and Yackee found for their low salience rules, which averaged about forty-two comments per rule. See Yackee and Yackee, *supra* note 20, at 131.

111. See *id.* at 133.

112. See Coglianese, *supra* note 41, at 73 tbl.2-2.

113. By contrast, there was no readily available benchmark to measure the agency's pre-proposal before it was vetted through the range of interested parties. For example, during the pre-NPRM stage interest groups appear to become involved well before the first draft of

general, one would predict that the pressures placed on agencies through the threat of judicial review, triggered by comments, will translate into influence, if not on a one-to-one basis, then at least in a way that suggests that greater comments from one sector will lead to imbalanced influence in the final rules.¹¹⁴ Specifically, due to dominant industry participation during the comment period of the HAPs rules, one would expect final rules, on average, to be weakened, rather than strengthened in response to comments. In this Article, and as previously discussed in the Methods Section, this influence was measured by examining the changes made between the proposed and the final rule and categorizing the change as either weakening or strengthening the rule.¹¹⁵

The findings generally support the hypothesis that comments lead to changes, although there is not a one-to-one correspondence between comments and changes; instead the correlation is more like one change per every two issues raised by commenters. Specifically, on average each rule involved twenty-two significant issues raised by the commenters in their comments and EPA made changes in response to slightly more than half (thirteen) of these comments and rejected the rest. Consistent with dominant participation by industry, moreover, most of the significant changes made to the rules (83%) weakened them in some way, usually by eliminating some requirement that EPA originally suggested in the

a proposed rule is crafted; thus it is impossible to know what the agency may have had in mind before interest group participation. As discussed later, an opposite problem afflicts what might transpire as a result of negotiations after a rule is final. While changes to a final rule can be compared pre- and post-negotiation, existing empirical literature indicates that the results of these negotiations may take many forms and that actual changes to the text of the rule may not begin to capture the result of these negotiations.

114. See ROBERT A. KAGAN, *ADVERSARIAL LEGALISM: THE AMERICAN WAY OF LAW* 223, 225 (2001) (underscoring how uncertainty in judicial review, coupled with adversarial processes, leads to counterproductive delays and skews in the resulting influence and power of different groups affected by a rulemaking); JERRY L. MASHAW, *GREED, CHAOS, AND GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW* 165 (1997) (stating that “most seem to argue that the real impediment created by judicial review is uncertainty” in how courts will analyze the rule).

115. We were not able to determine reliably whether the changes were “big” or “little” using this method, however; thus, there is still the distinct possibility that even if there is some indication of interest group impacts on the proposed rule as a result of comments, whether these impacts are substantively important is unclear and has been questioned by others. See, e.g., West, *supra* note 16, at 579 (discussing how some scholars believe that changes made to the proposed rule tend to be made “at the margins” and rarely go to the heart of the policy). The only indication that they might be is that EPA identified the changes as “significant”; however, this may be a relative term that selects out the most important changes relative to the rest and does not indicate objectively that the changes are indeed important.

proposed rule.¹¹⁶

This power in numbers is further reinforced by the finding that the number of changes weakening the rule steadily increased as the number of industry comments increased, with a correlation coefficient of 0.56 that is significant at the 0.01 level,¹¹⁷ shown in Figure 5 below. This provides yet another reinforcing perspective on how comments translate into influence, at least from the vantage point of industry. The data also suggest that there is effectively no stopping point on the number of changes that can be made to a rule; it depends on the number of issues commenters raise in their comments.

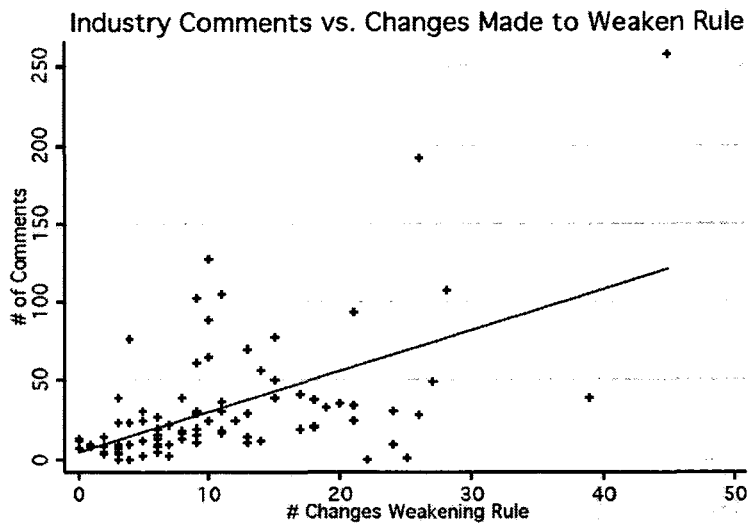


Figure 5

116. Industry enjoyed more affirmative changes relative to the public interest for 87% of the rules. Industry enjoyed more total favorable changes (both rejecting comments to make the standard stronger and accepting changes to make it weaker) relative to industry for 80% of the rules.

Intercoder reliability scores for some of these variables were quite weak and well below 0.75. *See* Appendix (detailing how reliability was measured). Reliability scores on public interest affirmative changes, the weakest of all, bottomed out at 0.36, a malady we attribute in part to the small numbers for this category of events. We will continue to examine the data to determine whether recoding can eliminate errors, whether revised protocol could avoid some of the reliability problems without losing validity of the data, or whether these reliability scores are generally the best that can be done with such a complex coding task, particularly when the units are small and the chance for even one unit variations can cause the reliability score to drop quite low.

117. There was a similarly significant positive correlation between the number of changes made in favor of industry and the number of public interest group comments, a finding that we attribute to the fact that as public interest comments increase, industry comments (and changes) also increase proportionately.

Less expected was the finding illustrated in Figure 6, that while EPA rejected about one-third of the comments intended to weaken the rule, it rejected more than half of the comments to strengthen the rule. Thus, the comments to strengthen the rule were not only fewer in number, but were less successful as compared with their counterparts striving to weaken the rule. This could be due to a number of factors. Perhaps the public interest group comments were more ambitious and demanded material changes to the rule. Or perhaps the agency views changes weakening a rule—which generally subtract from the rule—as less vulnerable to arguments that “material changes” were made as compared with comments that demand adjustments or additions to the text.¹¹⁸ These and other possibilities are ripe for further testing.

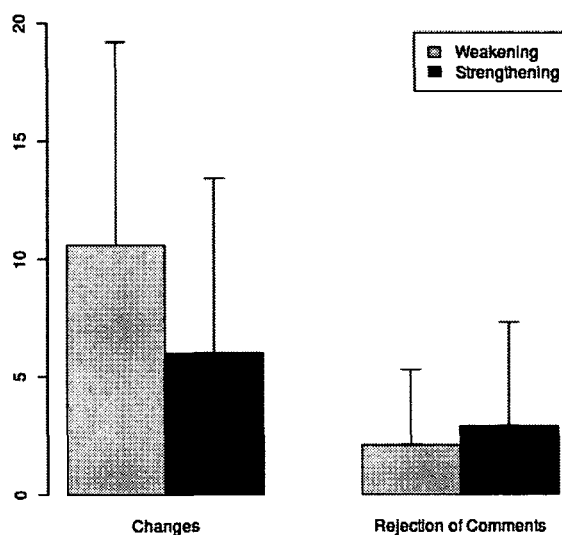


Figure 6: Comparison of Apparent Influence of Public Interest and Industry Interest Groups in Convincing EPA to Weaken or Strengthen the Proposed Rule¹¹⁹

(The solid bars represent the mean number of changes in each category; the thin lines represent the standard deviation on these means).

118. See West, *supra* note 16, at 581 (“One possible implication of the need to provide adequate notice is a bias in favor of subtractive changes in proposed rules. Deletions in response to public comment thus are not subject to the criticism that they have caught stakeholders by surprise.”).

119. Since the reliability of some of this data are low, these numbers, while statistically significant in terms of finding some difference, should be interpreted cautiously with respect to the absolute values.

Hypothesis 3: After rules are promulgated as final, interest group activity will continue on a significant percentage of them and revisions will be made to the rules that reflect these post-final negotiations. Regulated parties will again dominate this interest group activity.

Although administrative law scholarship has focused on the importance of the courts in reversing or remanding rules, surprisingly little attention has been given to what might be an even more important rulemaking influence—negotiations that occur on the courthouse steps after a rule is promulgated as final. Several scholars have observed that filing petitions and even appeals in court are relatively low cost measures for interest groups who have become deeply invested in the rulemakings. This is particularly true for regulated parties who also may enjoy implementation delays that postpone compliance costs while the appeals or petitions are being resolved.¹²⁰ At the same time, there is likely to be some negotiating room during the post-rule stage for interest groups who did not prevail on all of their comments. As a result, rules may not be set in stone when published as final, but many will continue to undergo more changes and revisions, some of which may be largely beyond the APA's reach.

In order to gain some sense of what occurs during the post-final rule stage, this study consulted several sources of data.¹²¹ First, evidence was

120. See, e.g., Sidney A. Shapiro & Thomas O. McGarity, *Not So Paradoxical: The Rationale for Technology-Based Regulation*, 1991 DUKE L.J. 729, 737–38 (observing that “[b]ecause judicial review ‘delay[s] the implementation of OSHA standards by an average of two years,’ a company or trade association could save its industry \$320,000 by filing an appeal, assuming an eight percent annual interest rate. . . . [Thus a trade] association could afford legal fees of up to \$640 an hour and still save its members money compared to the costs of immediate compliance with the OSHA standard” (second alteration in original) (footnote omitted)); Christopher H. Schroeder & Robert L. Glicksman, *Chevron, State Farm, and the EPA in the Courts of Appeals during the 1990s*, 31 ENVTL. L. REP. 10371, 10377 (2001) (explaining that “petitioners may add statutory interpretation challenges to cases brought on other grounds because the marginal costs of bringing a statutory challenge are relatively small”).

121. Because these post-final rule communications are again outside of the docket recording requirements and thus will be recorded at the whim of the agency, we expect the public records to be incomplete. Yet we lack any mechanism to determine just how incomplete. The same may be true for EPA's decision to publish changes resulting from petitions for reconsideration in the *Unified Agenda*, particularly if the changes take the form of minor amendments or alterations to guidance documents.

First, we consider whether and the extent to which post-final rule revisions actually take place in practice. Conveniently, EPA lists every published revision to each of the HAPs rules—a task that substantially streamlines data collection. See Appendix. This data does not tell us whether the revisions were triggered by interest groups or initiated spontaneously

collected on whether and to what extent rules are being revised after publication of the final rule. On this score, the data summarized in Table 1 below reveal a relatively high rate of revision activity; about 70% of all of the HAPs rules were revised at least once. More specifically and excluding the thirty percent of rules with no revisions, HAPs rules, on average, underwent about five revisions each since their promulgation in the 1990s or 2000s, which is, on average, one revision every other year. Most of these revisions do not involve notice and comment and about 13% of the revisions are entitled “stay,” “exemption,” or “exception” which appear—by their title—to favor industry.

	Mean	Standard Deviation	Maximum
Total number of revisions/rule	5.0	10.1	76
Major revision as formal rulemaking, with notice-and-comment	1.8	3.5	24
Technical amendment or clarification without notice-and-comment	2.5	4.2	28
Revision called a “stay, exemption, or extension”, usually occurring without notice-and-comment	.7	3.1	24
Number of revisions/year	.6	.9	5.75

Table 1: Revision Activity for Rules that Involved at Least One Revision (n=63)

. Information on whom or what triggers these revisions is more difficult to determine.¹²² Drawing primarily from the Unified Agenda, it appears that

by the agency, however. The data are also limited to changes that resulted in published revisions in the *Federal Register*. Changes that are not published, i.e., amendments to interpretive guidance or enforcement guidelines, are thus not included in this data set even though the literature suggests that this is another common route that agencies use to amend rulemakings. See, e.g., Schmidt, *supra* note 67, at 79 (discussing the Occupational Safety and Health Administration’s settlement with one party, which involved altering its enforcement guidance).

122. This information comes from two public sources of information: EPA’s log of projects published in the *Unified Agenda* in the *Federal Register* and petitions logged into the docket index after promulgation of a final rule. This data, particularly when combined with targeted searches in the final rule preambles, allowed us to identify the filing party for all of

twenty-two of all of the HAPs rules (or 22% of our dataset) involved petitions for reconsideration or suits for judicial review. *See* Table 2. The public interest and industry were almost in equipoise by the time petitions for reconsideration and appeals were filed, although industry still enjoyed a slight edge at this stage of the rulemaking.

	Number of rules for which a petition/litigation was filed	Filed by industry	Filed by public interest groups	Filed jointly
Petitions for Reconsideration that did not result in litigation	8	4	1	3
Judicial appeals (some of which settled) as recorded in the Unified Agenda and Westlaw combined	12	5	3	4
Total filings post-final rule	20	9	4	7

Table 2: Petitions and Challenges Filed by Interest Groups Against HAPs Rules

the petitions and judicial appeals noted in these two sources of data. Yet both databases are probably incomplete in ways that are likely to lead to underreporting, and perhaps significant underreporting. This is because EPA records items in the *Unified Agenda* only when they lead to final decisions generally taking the form of formal rulemakings. For petitions or litigation that do not trigger published rule revisions (i.e., a nonmeritorious petition or a settlement that leads to changes in EPA's guidance that does not alter the rule itself), the changes seem unlikely to be noted in the *Unified Agenda*. Further, even when there are final decisions or rules that result from petitions or litigations, we do not know whether EPA consistently reports these revisions in its *Unified Agenda* filings, particularly when the revisions are minor. Finally, the *Unified Agenda* looks ahead to what EPA plans to do. If a settlement and rule revision occurs soon after a promulgated rule, it may not be mentioned as a future project.

The findings in this Article are thus consistent with Professor Coglianese's observation of important post-final rule interest group activity. While post-final rule activity seemed relatively strong in our dataset—constituting more than 20% of the rules—Coglianese observed almost double this activity in his subset of significant hazardous waste rules. Specifically, Coglianese observed that 44% of the rules in his dataset ended with at least one petition seeking reconsideration or judicial review.¹²³ About half of these cases settled, and most of those settlements involved only regulated industry. The other half of the petitioned rules proceeded to litigation.¹²⁴ The greater post-final rule activity observed by Coglianese might have occurred because he focused only on significant rules (although only 25% of the significant rules in our dataset resulted in petitions for reconsideration or litigation). It also could be because Professor Coglianese's databases on post-final rule activity were more complete than our two sources of information on filing activity.¹²⁵ When combined with Professor Coglianese's study, our findings suggest that more attention needs to be directed toward this potentially important, but generally ignored period of interest group engagement, as well as at the pre-NPRM stage.

IV. ADDITIONAL FINDINGS

In this Section, we take a step back and, with the help of additional exploratory data, probe deeper into several questions raised by the findings, while also attempting to place the findings within a larger administrative context.

A. *Where are the Public Interest Groups?*

As noted in the introduction, the findings of limited public interest group engagement in the development of HAPs rules do not comport with conventional wisdom.¹²⁶ While public interest groups may not be able to participate in every rule, one would not expect them to be so badly outnumbered and even absent from rulemakings that have important implications for public health.

As it turns out, however, public interest groups did play a forceful role in most of EPA's HAPs rules, but this role occurred much earlier in the process and only with regard to the timeline, not the substance, of the rulemakings. The early activity of public interest groups was not caught by

123. Coglianese, *supra* note 41, at 95.

124. *Id.* at 141–42, 155.

125. *See infra* Appendix (explaining in greater depth).

126. *See supra* Part I (revealing that public interest group engagement in the development of HAPs rules is limited).

our initial hypotheses since these hypotheses focus exclusively on interest group engagement and influence in the substance of the rulemakings and not on the timing of rule promulgation.

Specifically, the *Unified Agenda* data¹²⁷ reveal that 73% of the HAPs rules (sixty-six rules) in our study were promulgated under court order resulting from deadline suits filed in the U.S. Courts of Appeals.¹²⁸ Although references to judicially enforced deadlines do not reference public interest groups as the litigant, we expect, based on other commentary and observations, that these cases are brought predominantly, and likely exclusively, by public interest groups.¹²⁹

Efforts by public interest groups to engage vigorously in this early phase of the HAPs rulemakings make good strategic sense. Until the 1990 amendments to the Clean Air Act were passed, air toxics from large stationary sources were effectively unregulated.¹³⁰ Therefore, the promulgation of *any* standards reducing toxic pollutants provides a marked improvement over the status quo. An important way to keep EPA on track is the filing of deadline suits that force EPA to promulgate these standards roughly on time. Beyond the public health benefits of these cases, deadline suits can be filed with almost no investment of time or effort and almost always lead to success. The only facts in contention, moreover, are whether there is a statutory deadline for a rule and whether the agency has missed that deadline.¹³¹ Equally beneficial, these lawsuits can provide positive publicity and media attention for public interest groups.

The engagement of public interest groups in this early but important stage of the HAPs rulemaking process, demonstrated in Figure 7 also provides a broader view of interest group activity through the rulemaking life cycle. Disaggregating the rulemaking process into four distinct stages also partly supports those political scientists and legal academics who contend that pluralism is alive and well.¹³² At the same time, by breaking down the opportunities for interest group engagement into the distinct

127. See *infra* Appendix (discussing the data from the *Unified Agenda* in greater depth).

128. In the Clean Air Act, Congress set a strict timetable for when EPA is required to complete various groups of HAPs standards; deadline suits consist of litigation, almost always filed by environmental groups, which seek to hold EPA to this statutory schedule. See 42 U.S.C. § 7412(e) (2006) (establishing schedule for standards and review).

129. We will verify this in the course of completing this study. See Coglianese, *supra* note 41, at 41–42 (discussing how deadline suits tend to be brought by public interest groups).

130. See, e.g., U.S. CONG. OFFICE TECH. ASSESSM'T, IDENTIFYING AND REGULATING CARCINOGENS: BACKGROUND PAPER, 141–42 (1987) (stating that the performance standards were delayed for fourteen months due to OMB).

131. See, e.g., ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 999–1000 (2006) (describing the features of deadline suits).

132. See *supra* notes 7–10 and accompanying text.

stages, Figure 7 reveals the much more limited role of public interest groups in shaping the substance of most of the rules, at least in the HAPs rulemakings.

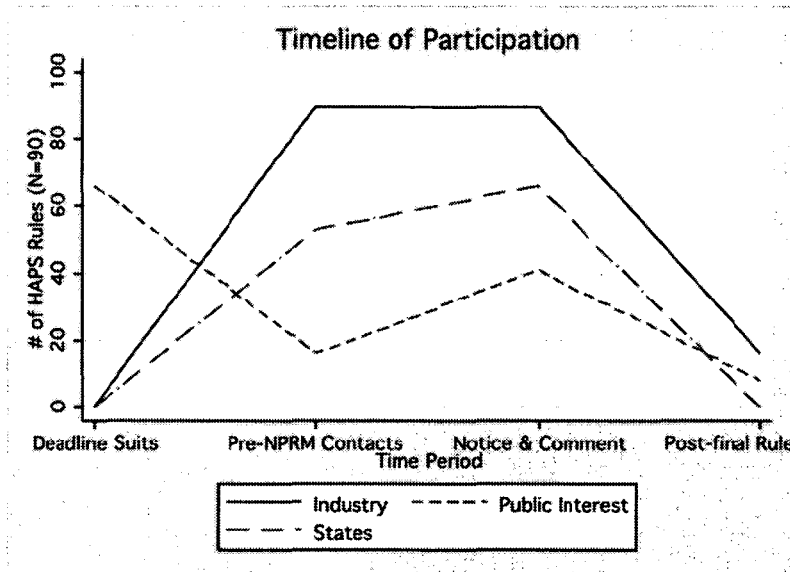


Figure 7: Participation in Each Stage of the Rulemaking Life Cycle by Number of Rules

Indeed, if this pattern of interest group activity turns out to be relatively typical of many EPA or other public health rulemakings (i.e., public interest groups are heavily involved in filing deadline suits and then back out of most of the substantive features of rulemakings until the end of the process), then involvement by public interest groups could actually lead to a somewhat perverse effect on the stringency of the resultant standards.¹³³ Given that the standard-setting is highly complex and technical, the fact that it also must be done in a relatively short time frame, often without vigorous adversarial presence by public representatives, may mean that the agency is even more dependent on regulated parties for information to get the rule promulgated on time. So, if the rulemakings are too hurried, they may be done more like a complex contractual negotiation between knowledgeable parties—here, regulated industry and EPA—rather than as a transparent deliberation amenable to vigorous public interest oversight.

133. See, e.g., HERBERT A. SIMON, *ADMINISTRATIVE BEHAVIOR: A STUDY OF DECISION-MAKING PROCESSES IN ADMINISTRATIVE ORGANIZATIONS* 248–49 (4th ed. 1997) (noting that the best manner to address organizational problems is to study the system that makes the decisions).

B. Participatory Predictors

Beneath the means and ranges, there is considerable variation in the extent to which interest groups participate in any given rule. In this Section, we explore possible connections within the data that serve as predictors for when an interest group will participate in a rule, or at least participate more vigorously or in higher numbers.

1. Industry Engagement and the Economic Costs of Rulemakings

Industry engagement is strong across all rules, yet one would expect that the cost a rule imposes on industry would be a useful predictor of the level of industry activity: the higher the cost, the higher the level of industry engagement at all stages of the rulemaking life cycle. While it was not feasible to identify the costs imposed on industry for each rule individually (these data may not be available), the rules could be divided into two categories: major rules where the costs to society exceed \$100 million annually; and rules that are not considered economically significant. We used negative binomial regression to compare participation during notice and comment, and pre-NPRM activity for industry, public interest, and states for economically significant versus economically nonsignificant rules. There was significantly greater participation (99% confidence) by both industry and states during the notice-and-comment process for economically significant rules as compared to rules that were not deemed significant.¹³⁴ Public interest group engagement in the notice-and-comment process, by contrast, was not affected by whether the rule was economically significant. During the pre-NPRM process, there were no statistically significant differences in participation activity between economically significant and nonsignificant rules for any of these three categories of interested parties.

2. Public Interest Group Engagement and Newsworthiness

Possible predictors of public interest group engagement are either the litigation potential or the newsworthy features of a rule. Since the litigation potential is difficult to assess *ex ante*, we focused on newsworthiness as a possible, simple predictor of public interest group participation. Specifically, we considered whether a correlation arises between the number of news hits for a rule and the level of public interest group activity. While this includes news that followed public interest group activity, rather than just news articles that preceded it, this measurement at least gives a

134. For industry ($\chi^2(1) = 12.10, p < .001$) and for states ($\chi^2(1) = 14.98, p < .001$).

general indication of whether public interest activity and newsworthiness go hand in hand.

We tested for this possible predictor by collecting all the major news coverage of individual HAPs rules by industry category over the entire period of EPA's rulemaking (1990 to the present).¹³⁵ Of this coverage, only twelve individual rules from the HAPs dataset (n=90) were covered in the major newspapers,¹³⁶ and there were only thirty-two articles on these twelve individual rules over the nineteen years of regulatory activity.¹³⁷ The difference in public interest comment activity between rules with media hits versus those that did not receive this coverage was in fact statistically significant at the 99% confidence level.¹³⁸ For rules covered in the major media, there was an average of 9.73 (SD=22.8) comments from public interest group participation per rule versus 1.35 (SD=2.91) for rules not covered in major newspapers. Most (about 60%) of this news attention was generated after the comment period had closed and in a number of cases after the rule was published as final. This time sequence makes the comment activity even more interesting as a predictor of media attention since it suggests that air toxic standards are much less newsworthy or salient (even for economically significant rules) when public interest groups are not vigorously engaged in the notice-and-comment process.

3. *Interest Group Participation and the Chief Executive*

One would also expect the identity of the Chief Executive to have some impact on interest group engagement and influence, particularly given the ideological differences between Presidents Bill Clinton and George W. Bush, the only two presidents who presided over promulgation of the HAPs rules. We are testing these differences more thoroughly in a separate study.¹³⁹ Preliminarily, however, the results do not show many significant

135. See *infra* Appendix (providing for a more detailed discussion of this search of major papers in LexisNexis).

136. Our study covers only the HAPs rules in 40 C.F.R. Part 63. There are a few other rules, as mentioned in the methods section, such as rules limiting toxic emissions from the incineration of hazardous and solid waste, and from the removal of asbestos. These rules received media coverage too, but are not included in the totals for source-specific Part 63 HAPs rules.

137. This light news coverage of individual HAPs rules stands in contrast to the 485 more general articles over this same time period documenting problems or sources of innovation with regard to air toxins emitted from large stationary sources.

138. A negative binomial regression model was used to compare public interest group participation counts, which revealed a significant difference ($\chi^2(1) = 12.05, p < .001$).

139. See generally Katherine Barnes, Wendy Wagner & Lisa Peters, *Presidential Politics meets Regulatory Complexity: An Empirical Study of EPA's Hazardous Air Pollutant Rules Under Clinton and Bush II* (July 16, 2010), available at <http://ssrn.com/abstract=1641551>.

differences between administrations with respect to either the balance in interest group engagement or influence at key stages of the rulemaking life cycle. Indeed, if anything, President Clinton was more amenable to pre-NPRM contacts with all groups, including industry. EPA under his watch was also more inclined to weaken rules based on industry comments than the George W. Bush EPA.

4. *The Role of the States*

Although the states were treated as a single unit in this study, they may have diverged considerably in their advocacy positions in the HAPs rules.¹⁴⁰ Given their relatively high level of engagement throughout the process, determining the nature and significance of the varying state roles is important. Recall that states outnumbered public interest groups during both the pre-NPRM and notice-and-comment process by almost two to one.¹⁴¹ Given this higher rate of activity, if states are serving predominantly as public interest advocates, then this alters the analysis to the extent that it suggests a more formidable public interest presence than is revealed by considering public interest group engagement, standing alone.¹⁴²

In an effort to gain preliminary insight into the advocacy positions taken by the states, we coded the text of the state comments filed for thirty-five rules in our dataset—this is nearly half of the rules (seventy-two) that triggered state comment. In their comments, the predominant role played by the states is to advocate on behalf of greater protection in EPA's HAPs rules, at least for those rules where the states actually staked out a clear position. This is not always the case, however. As shown in Figure 8, in most rules the states took diverse positions: some states advocated for greater protections while other states advocated for lesser protections. We intend to conduct further research on the role of the states to better understand these dynamics.

140. To our knowledge, none of the empirical studies of interest group participation in administrative law clear up this confusion regarding the states' multiple roles in public health rulemakings. Rather, they count states as "states" without discussing what that means in the constellation of interest group pressures. See Coglianesi, *supra* note 41, at 70 (listing states as a unit of study); Yackee, *supra* note 20, at 132.

141. Specifically, the mean number of state comments on the 35 rules in our subsample was five. For pre-NPRM involvement, the mean number of contacts between EPA and the states was nine, although it reached a maximum of seventy-seven contacts during the rule development stage.

142. See, e.g., Paul A. Sabatier, *An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein*, 21 POL'Y SCI. 129, 139 (1988) (discussing the types of advocacy coalitions that form during the policymaking process).

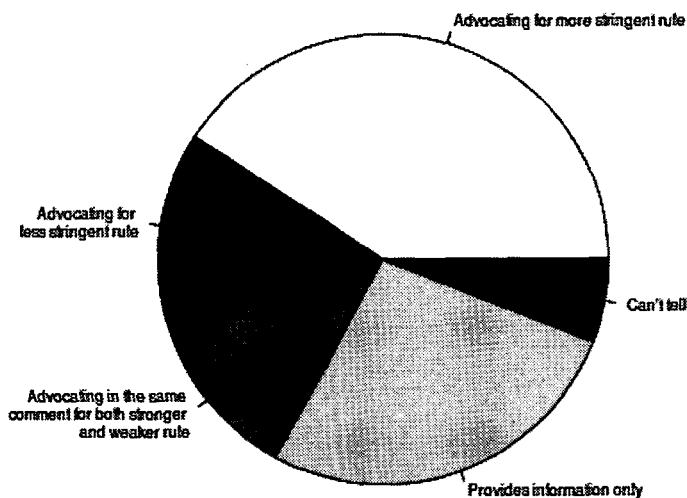


Figure 8: Various Positions Taken by the States in Their Comments

V. THE STORY EMERGING FROM THE DATA AND THE UNCERTAIN ENDING

The data and accompanying analysis illuminate some of the shadiest areas of rulemaking, but it seems to raise at least as many questions as it answers. In this last Part, we recount the story that we believe emerges from the data and highlight the uncertain implications of these findings.

A. *The Story from the Data*

Because the previous two Sections focus only on our hypotheses, it necessarily leaves out some of the unexpected discoveries that inevitably emerge from assembling the data. This Section draws from both these qualitative and quantitative findings to offer a fuller account of EPA's HAPs rulemaking process.

Under § 112 of the Clean Air Act, Congress directs EPA to promulgate a continuous stream of over 100 toxic air emissions rules in less than a decade, a timeframe that environmentalists reinforce through deadline suits and successful judicial orders.¹⁴³ Congress also provides relatively specific directions on the criteria EPA must use to promulgate these rules; specifically, in setting HAPs standards Congress instructs EPA to identify

143. 42 U.S.C. § 7412(e) (2006).

the best performing industries, including those that used nontechnological controls such as fuel-switching, and determine their achievable level of emissions of air toxics.¹⁴⁴ EPA must also identify the effectiveness and costs of the various control options to ensure they are feasible.¹⁴⁵ For example, if some of the raw materials can be substituted in ways that reduce toxic air emissions, EPA may want to investigate whether this input switching can be done in practice within an industry that might not have unlimited choices for input substitution.¹⁴⁶

In working through this daunting assignment for each of the 100-plus categories of industry, EPA typically relies initially on the available literature on pollution control technologies, which it supplements with commissioned background documents prepared by contractors (on average, each rule involved more than twenty commissioned contractor studies).¹⁴⁷ Quite early in the rulemaking life cycle—less than four years, on average, before publication of the proposed rule—EPA also begins requesting technical information from the regulated parties. EPA does this in part through formal information requests, which average eighty-six formal interactions between industry and EPA. The agency and regulated parties also begin to engage in a range of informal communications, which include not only letters and faxes, but also live meetings, telephone conversations, and teleconferences. The informal contacts with industry comprise another eighty-four communications per rule on average during the rule development process. Most of these communications involve written letters, although about one-third of the communications consist of phone calls and meetings. For written communications, EPA actually initiates more than one-third of the informal contacts with regulated parties; the rest of the informal communications are initiated by the regulated parties. In some cases, EPA also solicits feedback and critiques of its proposed rules from these same regulated parties before the proposed rule is published.¹⁴⁸

144. See *id.* § 7412(d)(2); see also *Sierra Club v. EPA*, 479 F.3d 875, 881, 883 (D.C. Cir. 2007) (analyzing EPA actions in the context of EPA legislative mandate).

145. See 42 U.S.C. § 7412(d)(2).

146. See *id.*; see also *Sierra Club*, 479 F.3d at 883 (describing the statutory prescription for EPA to look at the feasibility of complying with regulations through various means).

147. We recorded the presence of contractors only at the initial stages of preparing documents, but as a qualitative matter it was evident that their presence was continuous throughout the rules. EPA contractors would routinely serve as the contact for communications with industry, attend meetings, field phone calls, and provide the response to comments or at least to produce a first draft. Indeed, in some rules it appears that the contractor engaged in far more discussions with interest groups than did EPA staff. The role of contractors in rulemakings is a rich empirical area that we leave for future research.

148. See, e.g., Field & Robb, *supra* note 55, at 10 (discussing industry's role in drafting proposed rules); see also Coglianese, *supra* note 41, at 47–49 (commenting on industry's role in

Regulated parties are not the only group that communicates with the agency during rule development. The states were somewhat involved in this process, albeit roughly ten times less often than EPA's informal communications with regulated parties.¹⁴⁹ Moreover, in some of the dockets, the states provided actual permits and conditions they had imposed on industry. This information provided EPA with a more comprehensive basis for evaluating the capabilities of the pollution control technologies that were already in operation in some states. Least engaged during this pre-NPRM stage were the public interest groups, who averaged approximately 0.7 communications per rule.

The agency published a proposed rule a little less than four years, on average, after initiating the rulemaking.¹⁵⁰ Immediately upon publication, the rule was open for notice and comment, a process that typically lasted sixty to ninety days, but in some cases extended for months. During this notice-and-comment process, the agency continued to hear from these same interest groups. Public interest groups made a stronger appearance as compared with their pre-NPRM silence: public interest groups accounted for about 4% of all the comments filed with the agency; regulated parties accounted for about 81%. The agency received on average a total of approximately forty-three comments per rule. Late comments were also filed. About 11.4% of the comments were late and more of these late comments came from public interest groups (19% of public interest comments were late as compared to 9.5% of industry comments). In cataloging these comments, the agency typically relies on contractors. Their reports, which are often more than 100 pages in length, itemize the comments by issue and, in rare cases, by commenter and provide the agency's response to each comment.¹⁵¹ In a shorter section in the *Federal*

the drafting process).

149. EPA also engaged with governments when they acted as regulated parties, although this was relatively rare and occurred only for a few rules, with an average across rules of 0.3 total communications with governments as regulated parties during the pre-NPRM process.

150. In coding the docket indices, coders identified the date of the first substantive document logged into the docket. To calculate the time period over which EPA developed its rulemaking proposal, we subtracted this date from the date that EPA published the proposed rule. The mean period for the ninety HAPs rules was about four years. The considerable time spent during rule development—more than twice the time spent that was dedicated to responding to comments—suggests that empirical tests for ossification will need to include this early period in the rulemaking life cycle. To date, the tests of ossification appear to focus only on the agency's response to comments. It is also not clear whether the rules that are tested include rules, like HAPs, that are under statutory and judicial deadlines. In those cases, of course, ossification is much less likely.

151. For a sample of one of these documents, see, e.g., Summary of Comments and Responses on Proposed National Emission Standards for Automobile and Light-Duty Truck

Register, EPA summarizes the highlights of the “significant” comments and provides its responses—including identifying resultant changes made in response to the comments. This discussion of the agency’s response to significant comments appearing in the *Federal Register* preamble is, on average, about eight pages long.

EPA usually takes, on average, about 1.5 years to produce a final rule after publication of the proposed rule. The final rules were, on average, thirty-nine pages in the *Federal Register*. About 43% of the rules were considered major, resulting in greater than \$100 million in annual costs to society. These rules required cost-benefit analyses and were cleared through the Office of Management and Budget (OMB). Only 6% of the rules triggered small business protections.

In the final rule, EPA makes, on average, about thirteen “significant” (EPA’s characterization) changes to the proposed rule as a result of the comments. This constitutes about a 58% acceptance rate for the most significant comments, which average approximately twenty-two issues per rule. In fact, the number of industry comments correlates directly with the number of changes weakening the rule, averaging about one change weakening the rule for every two industry comments received. Industry also appears to enjoy a slight edge over the public interest advocates with respect to EPA’s acceptance of their comments: more than 82% of the changes made by EPA in response to comments weakened the rules in some way, and EPA tended to reject more of the comments advocating strengthening the rule than it did weakening the rule.

EPA’s response to significant comments provides a general indication of how the notice-and-comment process affects a rule’s development, but it leaves unanswered several major questions. First, the data do not give much indication of the significance of the changes that EPA makes. Some scholars maintain that most of the changes made during the final rule are minor and relatively insignificant.¹⁵² Our data do not speak to this question. The data do indicate that in most cases the changes involved more than compliance extensions or paperwork requirements (these comprise less than 20% of the changes). And while it is worth noting that EPA itself labels these changes as “significant,” our methods could not distinguish between changes that appear relatively “modest”—i.e., providing industry with more flexibility in how to meet a particular emission reduction—and those that seem significant—i.e., providing a new exemption that allows major industries to escape compliance requirements

Surface Coating, EPA (Feb. 2004), <http://www.epa.gov/ttn/atw/auto/autorepscomment.pdf>.

152. See, e.g., Golden, *supra* note 40, at 259; West, *supra* note 16, at 580–81.

under the statute. Second, the data do not suggest why EPA rejects or accepts comments seeking changes. It seems likely that in some cases the commenters request changes that are not desirable from a political perspective. In other cases, the commenters may be requesting changes that are not legally credible, and thus, can be brushed aside. Or perhaps some comments necessitate material changes to the proposed rule that, from the agency's perspective, are not worth the risk of legal challenge. To actually discriminate among these possibilities will require more extensive coding and data collection.

Final rule promulgation does not mark the end of the rule's life cycle, at least for the majority of HAPs rules. At least 22% of the rules resulted in petitions for reconsideration and 13% percent involved appeals to court that were lengthy enough to make the agency believe rule delays or changes were likely, because these appeals were recorded as events in the agency's *Unified Agenda*. Additionally, 70% of the HAPs rules were revised at least once; and there were on average four revisions for each of these revised rules. Interest group petitions may explain some of this revision activity, but for at least half of the rules that were revised one or more times there is no evidence of petitions or litigation. Thus, some of the revisions may be done by the agency primarily to adjust the rule to changes in information or technical details; other revisions could result from political pressure on the agency. Again, additional data collection is warranted.

In contrast to the earlier stages of the rulemaking life cycle, interest group activity appears more evenly balanced during the post-final stage of rulemaking. Industry petitions for reconsideration or litigation were only slightly higher than public interest group petitions. By the time the rule was actually appealed to court and resulted in a judgment, the balance tipped to yield an almost level playing field between industry and public interest groups, with the former enjoying only a slight edge in terms of the recorded notices of appeal.¹⁵³

In sum, once one looks at the entire life cycle of rulemakings, at least in this set of highly complex and technical pollution control rules promulgated by EPA, there are significant opportunities for participation and influence by interest groups, of which notice and comment is only a part, and perhaps a small part. Our research also suggests that at least in the case of HAPs, much of this added engagement tends to be badly imbalanced at the pre-NPRM stage, although it levels out for a small subset of rules after promulgation of the final rule.

153. The litigation history of these HAPs rules is the subject of an ongoing project and will be developed in future work.

B. The Uncertain Ending

Regrettably, while imbalanced engagement and influence is occurring in the HAPs rulemakings, this does not actually tell us whether this imbalance has a meaningful impact on the substance of the final rules. This Section considers arguments about why imbalances may *not* affect the substance of the final rules in a meaningful way and finds each of them incomplete. At this point, the available evidence does not rule out the possibility that imbalances in interest group engagement and influence may significantly impact the substance of the final rules.

1. Anticipating Industry Pressure by Issuing a Super-Stringent Early Proposal?

One possible way that imbalanced engagement may not matter is if the agency anticipates an onslaught of industry opposition during the rulemaking life cycle and develops an early proposed rule that is twice as stringent in order to meet industry halfway. In this view, while the process may be skewed in representation, it would not ultimately affect the substance of the final rule because of the agency's own mediating role in representing the public interest against the industry barrage. To directly test this hypothesis, we would need access to the agency's earliest proposal.

Nevertheless, based on indirect evidence, it seems unlikely that the agency will ultimately be able to anticipate and guard against imbalanced industry engagement in ways that adequately protect the public interest. First, the notion that the agency can begin with an overly ambitious rule in terms of advancing the goal of health protection, knowing that it will get whittled to half as it goes through the rulemaking, does not describe how the rulemaking process works in practice or the incentives the agency face as a result of judicial review. Courts do not review rules based on whether the agency splits the difference between the litigious groups and the public interest; each objection is reviewed on its own terms. If the agency provides a reasonable response to an objection or request for change (recall that for rules, there were approximately twenty-two requests for change, on average), the agency's rule is safe. If not, it is at risk of remand. The fact that the agency's rule in the aggregate does a good job of accommodating all interest group concerns is not before the court. The court instead reviews only those specific objections a litigating party wishes to raise in challenging a final rule and it expects a reasonable response from the agency on each contested issue.

It is also difficult to imagine how the agency could anticipate the extent of pre-NPRM and post-final rule opposition and calibrate its early proposal in ways that ensure that the outcome will nevertheless meet halfway between industry and public health protection. For example, the data

suggest that the number of changes the agency makes to weaken a rule correlate with the number of industry commenters, a feature that the agency presumably cannot control or predict in advance.

Finally, there is some evidence that the substance of some final HAPs rules fell below what might be considered adequate for health protection. One public interest litigator observed that EPA's HAPs rules were sometimes less stringent than those in force in some states.¹⁵⁴ Perhaps even more telling, EPA often fared badly in litigation brought by environmentalists against its rules. Of the six HAPs rules that were ultimately litigated to judgment, five involved successful challenges by environmental groups, in some cases with strongly worded opinions that chastised the agency for not adequately protecting the public health.¹⁵⁵ For example, EPA repeatedly refused to set regulatory restrictions on toxic pollutants if most of the industry sources had not already developed ways to limit these toxic emissions. This is one among several examples of EPA's deviations from the statutory terms in ways that compromised the public health protection goals.¹⁵⁶ The case law thus suggests that the substantive rules that emerged from the HAPs process—at least those that were appealed—were not “just right,” but tilted too heavily in favor of regulated parties.

2. *The Statute Leaves Little Room for Maneuvering?*

A second source of potential comfort with the otherwise worrisome implications of the study is the possibility that, at least in the case of HAPs rulemakings, the public interest groups may not be engaged in the substance of many of the rules because they believe the operable statutory directions provide EPA with little discretion to make the HAPs standards more lenient. Congress did provide a relatively precise definition of the best performing industry.¹⁵⁷ Thus, the argument goes, there must be very

154. Informal interview with anonymous public interest litigator involved in HAPs rulemakings during the 1990s, May 29, 2009 (interview in Chicago, Ill).

155. See, e.g., *Sierra Club v. EPA*, 479 F.3d 875, 881, 883 (D.C. Cir. 2007) (criticizing EPA for failing to meet its mandate of protection). These cases are described in considerably more detail in a working paper, Wendy Wagner, *Are the Courts Guardians for the Public Interest?: A Case Study of EPA's Air Toxic Emission Standards* (2011) (unpublished paper) (on file with author).

156. See, e.g., *Sierra Club* at 883 (stating that the court found EPA failed to set floors for existing small tunner brick kilns and existing and new periodic brick kilns).

157. In the statute, Congress defined the best performers as the “average emission limitation achieved by the best performing 12 percent of the existing sources” or, if there are less than thirty sources in an industrial category or subcategory, based on the “average emission limitation achieved by the best performing 5 sources.” 42 U.S.C. § 7412(d)(3)(A)–

little wiggle room in this particular standard-setting project, and whatever remaining concessions EPA does make during the rulemakings are inconsequential.

However, the possibility that the HAPs standard-setting decisions are inconsequential seems refuted in part by the fact that so many industries invest so much time and effort in engaging in these rulemaking processes. If it is behaving rationally, industry is not likely to engage in an average of eighty-four pre-NPRM informal (voluntary) communications for each rule,¹⁵⁸ submit on average thirty-five comments for a standard,¹⁵⁹ or file petitions for review of more than a dozen of these rules once promulgated.¹⁶⁰ In fact, if the die is cast by the statute, then the involvement of the thinly spread public interest groups also seems misplaced. Further refuting the potential insignificance of the changes is the fact that the majority of comments seek substantive changes to the stringency or scope of the standard; only a minority of the comments raise issues regarding compliance deadlines or paperwork requirements.¹⁶¹ In any event, if public interest groups are not engaged in commenting on the majority of the rulemakings, then they are not able to sue if the agency does ultimately violate the statute in setting more lenient standards; stringent statutory constraints on EPA's rulemaking assignment do not matter in practice if nobody is able to enforce them.¹⁶²

(B) (2006). By contrast, in setting technology-based standards under the Clean Water Act, EPA must consider the cost to industry, but in doing so, generally considers features such as the age of equipment and facilities involved, the process employed, potential process changes, nonwater quality, environmental impacts including energy requirements, economic achievability, and other such factors as EPA Administrator deems appropriate. *See, e.g.*, Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category, 69 Fed. Reg. 51,891, 51,896 (Aug. 23, 2004) (codified at 40 C.F.R. pt. 451); *see also* 33 U.S.C. § 1314(b)(2)(A)-(B) (2006).

158. *See* Figure 3.

159. *See* Figure 4.

160. *See* Table 2.

161. The coders identified not only the number, but the type of changes made by EPA in the final rule in their coding of the *Federal Register* preambles. The text provides the means from this coding effort.

162. In theory, some of the "greener" sources of HAPs could challenge the rule in an effort to impose more stringent requirements on their competitors; however, we are not aware of any lawsuits in the HAPs or many other areas of environmental law when this occurred.

3. *Political Branches to the Rescue?*

A final mitigating possibility arises from the hope that the diffuse public will be adequately protected in the end, if not from the strong ideological commitment to public health protection from within the agency, but from public-benefiting pressure exerted on the agency from without—through the Executive Branch or even through Congress.¹⁶³ In this political economy view, the political ballast—occurring through the White House or Congress—would push back against industry domination and keep these rules on a level playing field. While most would prefer that this political counter-pressure take place “in the light” rather than outside public oversight, as is currently the case,¹⁶⁴ the fact that it occurs at all may be chalked up as a victory.

The likelihood of congressional intervention seems the most improbable, both in theory and based on the existing data. EPA records congressional letters and contacts in the rulemaking dockets. Yet for all ninety rules combined, the number of congressional communications numbered forty-six, with an average of about three letters from a member of Congress for each of the sixteen rules. Beyond these formal written communications, there is no evidence of congressional involvement in HAPs rulemakings. There is no indication, for example, that Congress held hearings on any of EPA’s air toxic standards. While this evidence is not conclusive, it is at least suggestive of the possibility that Congress did not play a meaningful role in the HAPs standard-setting process.

The White House, primarily through OMB, is more directly involved in reviewing many of the HAPs rules since at least 40% of the rules were identified as economically significant rules through a cost-benefit analysis.¹⁶⁵ In terms of the extent of changes weakening (or strengthening) the rule during the notice-and-comment process, however, there were no statistically significant differences between the economically significant and nonsignificant rules. Thus, if OMB is involved in the economically significant rules, it is at least not involved in ways that lead to visible differences in the agency’s response to comments at the aggregate level.

163. Cf. John D. Graham, *Saving Lives through Administrative Law and Economics*, 157 U. PA. L. REV. 395, 473–74 (2008) (describing White House deliberations over features of EPA rules that were not clear from regulatory impact analyses, but related to the costs and benefits of the regulation).

164. See, e.g., Bressman & Vandenbergh, *supra* note 48, at 78, 85, 86 (noting that “97% of EPA respondents stated that White House involvement was either not visible” or “only somewhat visible to the public” and that a majority of EPA respondents believe the White House is more susceptible to faction capture than EPA).

165. See Exec. Order No. 12,866, 3 C.F.R. § 638 (1994), *reprinted as amended* in 5 U.S.C. § 601 (2006).

More to the point, the general literature provides no support for the possibility that OMB regularly intervenes to make EPA's rules more protective. Instead, recent studies of OMB identify a distinct anti-environmental bent that is consistent across administrations.¹⁶⁶ One of the primary justifications given for stronger White House and OMB involvement, in fact, is to counteract the perceived ideological bent of mission-oriented bureaucrats.¹⁶⁷ Thus, the available evidence provides little reason for thinking that White House and OMB review, in the aggregate, helps protect against regulatory imbalances that favor industry.

CONCLUSION: THE BUMPY EMPIRICAL ROAD AHEAD

This study reveals that at least some publicly important rules that emerge from the regulatory state may be influenced heavily by regulated parties, with little to no counterpressure from the public interest.¹⁶⁸ An important next step is to determine how or whether the results from the study of HAPs rulemakings extrapolate to other rulemaking activities, both within EPA and to other agencies like the Occupational Health and Safety Administration, the Food and Drug Administration, and the Consumer Product Safety Commission. Certainly, the additional opportunities for

166. In their study of top EPA officials' view of the Office of Information and Regulatory Affairs (OIRA) during the Bush I and Clinton administrations, Professors Bressman and Vandenberg report that the strong majority (70%) reported that the "White House readily sought changes that would reduce burdens on regulated entities, and veered from those that would increase such burdens." Bressman & Vandenberg, *supra* note 48, at 87. Professor Croley made similar, although not quite as strong observations about OIRA's tilt during the White House review process: 56% of the meetings OIRA conducted to discuss rulemakings were exclusively with industry as compared with 10% that were held exclusively with public interest groups. See Croley, *supra* note 48, at 858, 865–66 (noting that over half of the rules that were the subject of OIRA meetings were attended solely by persons representing narrow interests and that EPA issued more major rules than any other agency during the Reagan–Bush administration). Finally, in a General Accounting Office (GAO) study, approximately 70% of the rules that OIRA "significantly affected" and for which comments were available involved reinforcing the views of industry. U.S. GEN. ACCOUNTING OFFICE, GAO-03-939, RULEMAKING: OMB'S ROLE IN REVIEWS OF AGENCIES' DRAFT RULES AND THE TRANSPARENCY OF THOSE REVIEWS 11 (2003).

167. See, e.g., Bagley & Revesz, *supra* note 27, at 1261–62; Katzen, *supra* note 39, at 1505.

168. Ultimately, even modest reforms, like requiring agencies to record pre-NPRM and post-final rule contacts with interest groups, might help redress some of the unpoliced opportunities for lopsided interest group influence without imposing heavy costs on the agency. A number of other reforms are also ultimately possible, such as recalibrating the level of judicial scrutiny to the extent of pluralistic engagement by affected parties. Yet these reform discussions go well beyond the four corners of the instant empirical study and its immediate implications for administrative law reform. See generally Wagner, *supra* note 77, at 1431 (noting that there is "information capture" and a significant design flaw in administrative flow of information).

interest group influence highlighted in this study, most of which are only poorly accounted for by public transparency requirements in the APA, would seem to carry over to some rulemakings in these other agencies. Moreover, the incentives for an agency to “get it right” in the proposed rule, which invites extensive participation during pre-NPRM, also would seem to infect other agency rulemakings, since this incentive appears to stem from administrative law and not from statutory directions that are unique to EPA. Because imbalanced participation appears to be a recurring phenomenon in the limited empirical literature bearing on the subject and is also explained by relatively simple rational choice models for both regulated industry and public interest groups, it would in fact be surprising if most complex, lengthy rulemakings in other agencies are not beset by some pluralistic deficiencies. Of course, an occasional rule might overcome these odds and become accessible, which would in turn invite great public interest activity. Based on the growing body of evidence, however, this may be the exception rather than the rule.

Ultimately, even if interest group participation in rules like EPA’s HAPs rules is badly skewed, and even if this leads to rule changes that favor the dominant group, it is not clear what the substantive implications of this imbalance might be. Research methods that measure the substantive implications of skewed influence—specifically whether changes weakening the rule are meaningful—could shed valuable light on the actual consequence of imbalanced participation on resultant rulemakings. At this point, however, we are unaware of such methods.

There is a great deal that we do not know about the administrative process that we need to know to assess how well it works in advancing the goals set for it. Hopefully the findings generated by this Article, as well as by the few studies that preceded it, will pique scholarly interest in the empirical study of agency rulemakings. We encourage others to join us in the effort to increase our understanding of agency rulemaking, which for far too long has been viewed as a black box impervious to scrutiny.

APPENDIX: EMPIRICAL METHODS

This Appendix provides a more detailed description of the methods for data collection and analysis used to generate the findings discussed in this study.

1. Docket Indices and Final Rule Preambles

Once the HAPs rules were selected as the focus of study, the first order of business was to identify the individual rules within this larger set for coding, which proved more difficult than expected. As a first order matter, we concluded that it was preferable to study all of the HAPs rules since we did not know how similar the rules would be and were not comfortable relying on a subset of the data.¹⁶⁹ Yet this still left the identification of the individual rulemakings. EPA has promulgated 124 final, industry-specific HAPs rules in 40 C.F.R. Part 63, but several rules had to be merged because EPA created them in the same rulemaking process.¹⁷⁰ Another

169. We also excluded four sets of HAPs rules promulgated at other parts of 40 C.F.R., and not at Part 63 (NESHAPs for asbestos, benzene waste operations, the Clean Air mercury rule, and hazardous waste combustion). We excluded these rules because all four are quite different than the Part 63 HAPs: They either overlap with other statutes (i.e., hazardous waste) or were promulgated before the 1990 amendments, which was the basis for all of the Part 63 standards. We plan to study these four rules in an expanded version of this same study.

170. Twenty-two subparts were combined into six units because they were created by the same final rule and their creation is documented by one docket (Subparts AA and BB were merged as a single final rule published at 64 Fed. Reg. 31,358 (June 10, 1999) (docket no. A-94-02); Subparts DD, OO, PP, QQ, RR, and VV were merged as a single final rule published at 61 Fed. Reg. 34,140 (July 1, 1996), (docket no. A-92-16); Subparts HH and HHH were merged as a single final rule published at 64 Fed. Reg. 32,610 (June 17, 1999) (docket no. A-94-04); Subparts BBBB and CCCCC were merged as a single final rule published at 73 Fed. Reg. 1916 (Jan. 10, 2008) (docket no. EPA-HQ-OAR-2006-0406); Subparts DDDDD, EEEEE, FFFFF, and GGGGG were merged as a single final rule published at 72 Fed. Reg. 2930 (Jan. 23, 2007) (docket no. EPA-HQ-OAR-2006-0510); Subparts LLLLL, MMMMM, NNNNN, OOOOO, PPPPP, and QQQQQ were merged as a single final rule published at 72 Fed. Reg. 38,864 (July 16, 2007) (docket no. EPA-HQ-OAR-2006-0897). Nine subparts were combined into three units because they were created by the same final rule, however their creation is documented in several dockets: Subparts F, G, H, I were merged as a single final rule at 59 Fed. Reg. 19,402 (Apr. 22, 1994) (docket numbers: A-89-10, A-90-19, A-90-20, A-90-21, A-90-22, and A-90-23); Subparts JJJJ and KKKKK were merged as a single final rule published at 68 Fed. Reg. 26,690 (May 16, 2003) (docket numbers: OAR-2002-0054 and OAR-2002-0055); Subparts RRRRR, SSSSS, and TTTTT were published as a single final rule at 72 Fed. Reg. 73,180 (Dec. 26, 2007) (docket numbers: EPA-HQ-OAR-2006-0424, EPA-HQ-OAR-2006-0360, and OAR-2006-0940).

twelve rules had to be excluded because of difficulties getting the dockets.¹⁷¹ Our study thus examines all of the HAPs rules promulgated at 40 C.F.R. Part 63, with the noted exceptions (n=90).

Because of the difficulty and time involved in obtaining archived records from EPA, the data were drawn from two publicly accessible documents available for each HAPs rule—the rulemaking docket index¹⁷² and the final rule published in the *Federal Register*.

The docket index is the source of data used to measure interest group participation. These indices provide a detailed inventory of many of the communications, documents, and comments the agency considered in preparing the final rule. In many HAPs rulemakings, the docket index includes more than 100 pages of entries of information, meetings, telephone calls, and comments that are logged in throughout the life cycle of a rulemaking. The agency docket also contains all communications occurring during the notice-and-comment period. While information received pre- or post-notice and comment that affects the agency need not be logged in, these HAPs docket indices, even in their incomplete form, still provide a great deal of information about how long the agency worked on the rule, at least some of the contacts it had in drafting the rule proposal, and who participated in various stages of the rulemaking process.

Coders were instructed to categorize each contact in the docket index by participant's affiliation and then record the number of contacts for each group. The types of contacts categorized included factual memoranda, written correspondence, meetings and telephone calls, written comments, and intergovernmental communications. This identification of participant affiliation was relatively straightforward for most entities and tracked the categories used by Professors Yackee and Yackee and Professor Coglianese:¹⁷³ EPA contractor, industry, industry association, public interest group, state regulator, governmental entity acting as a regulated party (i.e., Department of Defense or sewer district), unaffiliated party, and other. When coders were not able to determine the affiliation of a participant, they conducted a Google search; if that failed, they consulted Wagner; and if she could not determine the affiliation, the party would be classified as "other."

171. These additional excluded subparts are S, SS, TT, UU, WW, YY, XX, EEE, FFFF, HHHHH, SSSSS, and TTTTT. 40 C.F.R. pt. 63. Several of these were created within the same rulemaking process. If we could have gotten the docket information for these subparts it would have resulted in another six units for analysis.

172. About 70% of the legacy indices are available on Regulations.gov. The rest had to be requested through the EPA docket center or were available as electronic dockets on Regulations.gov.

173. See Coglianese, *supra* note 41, at 71, 73; Yackee & Yackee, *supra* note 20, at 132.

The final rule provides our source of data for assessing interest group influence, as well as some other basic features of the rule—the rule's length, whether it was considered “significant” by EPA, and whether it affected small business. We initially attempted to compare the actual requests for changes filed by each interest group in their submitted comments with final rule changes following the content analysis methods developed by Professors Yackee and Yackee.¹⁷⁴ Given the large amount of comments and the multiple requests for change in each, it soon became clear that this would not be possible with a limited research budget and might not produce reliable results given the size of the records and rulemakings. We ultimately determined that EPA's section on its response to significant comments—a section that is provided in every final rule—provided an approximate barometer of both the nature of all significant requests for changes that EPA received and how EPA responded to each of them.¹⁷⁵

In its discussion of the major comments and its individual responses, EPA always provides a summary of a major comment first and follows it with its specific response. In each rule there are often many—usually dozens of these individual comment-responses—to explain the changes made in the final rule. Coders could thus not simply determine whether the rule was changed overall in ways that favored industry or not, following the methods of Professors Yackee and Yackee;¹⁷⁶ there were too many requests for change. Instead coders were directed to code each request for change separately according to the type of change (i.e., substantive change; change in the coverage of the rule, change in monitoring, change in recordkeeping). The coders then assessed, based EPA's summary of the comment, whether the request for change sought a stronger or weaker regulatory requirement, according to the categories in Table 3 below. Finally, the coder was asked to determine, based on EPA's response, whether the request for change was accepted or rejected by EPA in the final rule. When coders were not able to easily code a request for change following the categories in the coding sheet, the protocol involved

174. See, e.g., Yackee & Yackee, *supra* note 20 at 131–32.

175. For an example of this section, see EPA, National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing; and National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing, 68 Fed. Reg. 26,690, 26,694–706 (May 16, 2003). While EPA's characterization of what constitutes a major or significant comment is somewhat self-serving, a separate, supporting document that contains EPA's response to *all* comments provides an accessible check against the agency's characterization and could be used in litigation; we thus suspect that EPA does a relatively good job culling out the major comments in an honest and straightforward way.

176. See, e.g., Yackee & Yackee, *supra* note 20, at 131–32.

consulting a set of default rules intended to ensure consistent results; if that failed, the question would be raised to Wagner; and ultimately to record a question mark (“?”) if the issue could not be resolved.

Response/ Change	Decline Weaken	Decline Strengthen	Agree to Weaken	Agree to strengthen	?
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Table 3: Categories for Rule Changes in “Rule” Coding Sheet

Two sets of research assistants were trained in how to code either the docket or the rule using a coding sheet designed specifically for the HAPs rules through a training session and one-to-one practice session with Wagner. More extensive training—typically involving three sample rules—was required of research assistants conducting the rules coding.¹⁷⁷ The coding data were entered into Excel initially and then converted to Stata format for ease of analysis.¹⁷⁸ In the statistical analysis, we link the docket and rule together not only to evaluate general features—such as the balance in participation during the pre-NPRM and comment period—but to link those features to how the agency responds to significant comments from affected groups in a single rule. The strength of the relationship between industry dominance during the comment period and significant changes weakening a rule is tested using simple statistical correlations.

Intercoder reliability on both rules and dockets was also evaluated near the end of the study. 15% of the rules and 8% of the dockets were coded by at least two separate research assistants and the results were compared. Rather than test for exact matches, we investigated whether the tallies were within 20% of each other for each cell or combination of related cells (i.e., were the coders finding roughly the same number of industry correspondence pre-NPRM). The reliability was perfect (1.0) on simple coding cells—for example whether a rule was economically “significant,” a finding that EPA makes in very clear fashion. On the more subjective decisions—for example, whether EPA rejected a substantive change in coverage that weakened the rule—the reliability scores were lower and must be qualified, sometimes heavily. In this Article, we generally use only data that had strong reliability scores, above 75% reliability. When reliability drops below this level, we note that fact in footnotes. In some cases, reliability is difficult to achieve because of the small numbers of

177. All of the selected coders were second-year law students, third-year law students, or L.L.M. students. Virtually all of them also had taken coursework in environmental or administrative law or both.

178. The statistical analysis was performed using Stata 10.1.

changes requested; a difference between one and two changes is larger, in percentage terms, in the quantitative assessment of reliability than a difference between 200 and 201 requests for changes.

2. *Unified Agenda Database and EPA's Hazardous Air Pollutants Table*

In addition to coding final rules and dockets, information was collected on post-final rule activity through three publicly available sources. The first source of information came from formal reports of rule reconsiderations or litigation recorded by EPA in the unified agenda published in the *Federal Register*. OMB's online database¹⁷⁹ provided data for post-1995 *Unified Agendas*¹⁸⁰ and Westlaw searches provided data for the earlier (1990 to 1995) unified agendas.¹⁸¹ The hits were screened and NESHAPs rules (which are the HAPs rules) were pulled out, excluding the few that were not promulgated in 40 C.F.R. Part 63. The resulting hits were sorted into one pile for reconsideration and judicial challenges to the substance of the rule; and a second pile for deadline suits. After eliminating redundancies and locating the first date that the entry was published in the unified agenda, the dates and Regulation Identification Numbers for all of these petitions for reconsideration, petitions seeking judicial review of a rule, and deadline suits were entered into Excel. For the first two categories we were able to identify the filing parties either through the *Unified Agenda*, or when that was not possible, by tracking back to the final rule that ultimately resulted from the petition and locating the filing party in EPA's preambulatory discussion. We were not able to identify the identities of the filing parties for deadline suits before this Article went to press.

Another source of information about post-final rule activity came from the docket indices. In some cases, EPA records petitions for reconsideration or litigation that follows promulgation of the final rule. We supplemented the information collected from the unified agenda data with

179. See Advanced Search – Select Publication(s), <http://www.reginfo.gov/public/do/eAgendaAdvancedSearch> (last visited Feb. 3, 2011).

180. Advanced Search – Select Publication(s), OFFICE OF INFO. AND REGULATORY AFFAIRS, OFFICE OF MGMT. & BUDGET, REGINFO.GOV, <http://www.reginfo.gov/public/do/eAgendaAdvancedSearch> (select “Search all available publications;” then select “Environmental Protection Agency,” then “Air and Radiation;” search for “reconsideration” in the “Terms” box, or check the option next to “Judicial” under “Legal Deadline – Source”) (last visited Feb. 3, 2011).

181. We searched the Federal Register database in Westlaw with the following search terms: ““UNIFIED AGENDA” & (NESHAP* W/150 (JUDICIAL RECONSIDERATION)) & DATE(AFT 1/1/1990 & BEFORE 1/1/1996).” WESTLAW.COM, <http://www.westlaw.com> (search for “Federal Register” under “Search for a database;” input search query above without quotes) (last visited Feb. 3, 2011).

this additional information. In comparison to the information collected from the unified agenda data, docket recordings were quite limited; most of the petition activity reported in the unified agenda was not logged into the docket for the corresponding rule. Only one judicial challenge from a docket index was not listed in the unified agenda.

Finally, an EPA online webpage was used to provide the life history of most of the HAPs rules¹⁸² in order to track post-final rule revision activity. The date and nature of each revision for each rule subpart was tracked and recorded.

Together, these data sources provide at least preliminary evidence of what happens to EPA's HAPs rules after they are promulgated as final.

3. *News Data*

As part of an exploratory part of the study, discussed in Section IV, partial data on the media coverage of air toxic issues was also collected with particular focus on news coverage of the emissions of air toxics from stationary sources. The "major news" database in LexisNexis was searched for the entire period of the regulation of hazardous air pollutants using broad search terms.¹⁸³ Extraneous articles were culled out, specifically excluding articles on particulates if there was no mention of hazardous air pollutants; articles on hazardous air pollutants from mobile sources; and articles on hazardous air pollutants resulting from the terrorist attacks on September 11, 2001. News was categorized by topic and an article was not considered relevant unless two or more sentences were devoted to a discussion of air toxics. Data was entered on: the category of the article; the type of newspaper (top eight in circulation; top 100 in circulation; or not listed as a top 100 newspaper);¹⁸⁴ and the date of the article. Because these data are being used in a more exploratory way, intercoder reliability was not measured.

182. See National Emission Standards for Hazardous Air Pollutants, <http://www.epa.gov/ttn/atw/mactfnlalph.html> (last visited Feb. 3, 2011).

183. Our LexisNexis search was as follows: "air w/10 (toxic or hazardous or hap* or mact or 112 or neshap*) w/50 (standard* or limit) & (epa or "environmental protection agency") and date aft (1/1/1990)." LEXISNEXIS.COM, <http://www.lexisnexis.com> (select "News and Business" tab; check the box next to "Major Newspapers" and select "Go"; input search query above without quotes) (last visited Feb. 3, 2011).

184. BurrellesLuce.com, 2010 Top Media Outlets: Newspapers, Blogs, Consumer Magazines & Social Networks (updated May 2010), http://www.burrellesluce.com/system/files/BL_2010_Top_Media_List_Updated_May%202010.pdf.