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Industry Dominance in Publicly Important Rulemakings: An Empirical Study of EPA’s Hazardous Air Pollutant Rules

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Industry Dominance in Publicly Important Rulemakings:  
An Empirical Study of EPA’s Hazardous Air Pollutant Rules

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Abstract

This study challenges the conventional wisdom that Environmental Protection Agency (EPA) rulemakings are generally subjected to robust pluralistic processes by a diverse group of affected parties. The study tests for imbalance in interest group participation and influence (primarily between industry and environmental groups) in a complete set of highly technical and complex EPA pollution control rules governing hazardous air pollutant emissions. Imbalanced participation is assessed at three separate stages of the rulemaking life cycle – before the proposed rule is published, between notice and comment and the final rule, and after the final rule is published. The results reveal imbalances in interest group participation at each of these stages. At the pre-proposal stage, industry had an average of 83.6 informal communications with the EPA per rule; public interest groups had an average of 0.65 communications per rule. During the comment process, industry provided approximately 77% of the total comments; public interest groups provided 5%. Changes made to the final rule after notice and comment favored industry by a factor of 5 to 1 as compared to the changes benefitting the public interest. Post-final rule activity was considerable as well. Petitions and litigation occurred for 22% of the rules, with industry filings accounting for 2 times those filed by public interest groups. After promulgation of the rules, moreover, roughly 70% were revised and amended, with an average rate of over 4 revisions per rule for those that were revised at least once. The findings are consistent with other empirical research on the rulemaking process, but add to the evidence that the interest group representation model may be failing to ensure agency accountability. Specifically, imbalances in interest group participation are observed where imbalances are not typically expected (“salient” EPA rules that have a direct bearing on public health protection) and where imbalances are not typically measured (occurring prior to publication of the proposed rule and after publication of the final rule).

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By virtually all accounts, administrative process has triumphed over agency capture, at least in the large and important area of health and environmental regulation. U.S. administrative process guarantees all affected parties both a right to comment and a right to sue an agency that diverges significantly from the statutory command or the factual record.¹ These opportunities not only provide business interests with protection from arbitrary regulation, but they offer the burgeoning public interest community legal levers for holding agencies accountable to the broader public. The result, so the general account goes, has been a vigorous and formidable presence of public advocates in the crafting of environmental and public health rulemakings. Professor James Q. Wilson, for example, observes: “EPA has had to deal with as many complaints and lawsuits from environmentalists as from industry, despite the economic and political advantage industry presumably enjoys.”² In their study of interest group politics, Professors Burdett Loomis and Allan Cigler conclude that by the early 1980s, a “participation revolution” had arisen comprising citizens and special interest groups seeking collective material benefits for the public at large.³ 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.”⁴ More recently, in his book on public interest regulation, 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.”⁵

Reinforcing this general optimism regarding pluralistic engagement and administrative accountability is the scholarship of influential thinkers like Justice Breyer and Cass Sunstein. They argue, quite passionately at times, that if there is a problematic tilt in the design of existing administrative process, if anything it leans too far to in favor of the diffuse public. Run-away regulation and cascades of public panic and even hysteria hold the regulatory state captive to the general public’s multi-faceted cognitive deficits and do not provide adequate allowance

¹ Administrative Procedure Act, 5 U.S.C. §§ 553(c) and 706; See Richard B. Stewart, The Reformation of American Administrative Law, 88 HARV. L. REV. 1669, 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”).
³ Burdett A. Loomis & Allan J. Cigler, The Changing Nature of Interest Group Politics, in INTEREST GROUP POLITICS 1, 11 (Allan J. Cigler & Burdett A. Loomis eds., 1983) (also 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”).
⁴ 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.
for objective and better informed experts to step in and take over. Reading the work of these eminent thinkers, one gets the sense that the agency is flooded with postcards and public pressures in ways that make it difficult for the expert civic servants to do their job and that create inefficient and unsupported economic hardship for companies, which ultimately must comply with the resulting overregulation.

Strung end-to-end, the cumulative portrayals of administrative law within the important field of social regulation provide a reason to celebrate the administrative state. If the full, diverse group of interests are operating on the agency – at least in environmental and public health regulation – then the resulting rules are likely to not only be democratically contrived, but better informed and better balanced than almost any other product of the political branch. Rather than unaccountable delegations of too much power to agencies, in fact, these delegations might in practice result in more accurate and accountable rules that bind industry and society more generally. The administrative state – at least when the rules matter directly to the public – in other words, may have struck exactly the right procedural chord in our complex democracy and could be a model that we not only need to replicate in other areas, but that should be exported to countries that lack one or more of our procedural bells and whistles.

The success of the administrative state should not be overstated, of course. There are still sources of significant worry regarding administrative accountability. Alarming under-enforcement of existing laws, delays in regulation-writing, insufficiently funded agencies charged with resolving

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6 See, e.g., Stephen Breyer, Breaking the Vicious Circle: Toward Effective Risk Regulation 33 (1993) (describing how public perceptions trigger a “vicious circle” of legislation and regulation of trivial risks that impose unjustified costs on regulated parties); Timur Kuran & Cass R. Sunstein, Availability Cascades and Risk Regulation, 51 Stan. L. Rev. 683, 741 (1999) (discussing how salient and accessible claims about environmental risks, often promoted by public interest groups, can cascade through the public to lead to unsupported urgent calls for regulation of trivial risks, and offering recommendations for insulating civil servants from these mass demands).

7 Their reforms, moreover, are explicitly designed to bypass public input in the development of public health and safety regulations through the more extended use of expert bodies and cost-benefit analysis. See, e.g., Breyer, supra note 6, at 68–72 (recommending that an elite group of “super regulators” make regulatory decisions rather than basing regulations on public preferences, as is currently the case); Cass R. Sunstein, Cognition and Cost-Benefit Analysis, 29 J. Legal Stud. 1059, 1060 (2000) (recommending the use of cost-benefit analysis to correct for numerous cognitive deficits in public assessment of risk); see also Cass R. Sunstein, The Cost-Benefit State: The Future of Regulatory Protection passim (1996) (recommending the use of cost-benefit analysis to correct for various undesirable effects of public governance). See also John M. Mendeloff, The Dilemma of Toxic Substance Regulation 4-12 (1988).

8 See, e.g., Susan Rose-Ackerman, Controlling Environmental Policy: The Limits of Public Law in Germany and the United States (1995) (concluding that more formal opportunities for notice and comment and judicial review in Germany may lead to greater administrative legitimacy).


politically-charged issues, and counterproductive White House intervention rank among the top of the complaints about the capacity of administrative agencies to adequately address public health and environmental problems. The rulemaking process itself, however, is not among them. Conventional wisdom about the underlying structure of administrative process in environmental and public health regulation seems to be that administrative law is working adequately, if not too well, to ensure that the views of the diffuse public are taken into account.

In this study, we test the possibility of a significant blind spot in this building confidence in the accountability of the administrative state by focusing on interest group participation and engagement in a set of publicly important rulemakings burdened with high and possibly unnecessarily excessive information costs. Basic economic theory predicts that for highly complex and informally excessive rules, thinly financed groups, even those with savvy technical experts, will tend to drop out of engagement of many rulemakings due to their scarce resources, leaving rule development and refinement dominated by a narrow set of interests – typically regulated parties. Indeed, in such an inhospitable participatory environment, legal tools that were originally intended to improve pluralistic oversight and provide for a more robust mechanism for agency accountability – namely notice and comment and judicial review – may turn out, in cases where information costs are excessive, to be particularly vulnerable to abuse in ways that ultimately produce a less, rather than more, accountable process.


13 See supra notes 2-7 and accompanying text. This upbeat portrayal of the regulatory process appears to be so well accepted that it is even used as the basis for arguing that the agencies are vastly superior to the courts in ensuring adequate representation of affected interests and balanced and informed decision-making, with the implicit conclusion being that federal preemption may not only be unobjectionable but possibly preferable to state regulation and common law tort claims. See, e.g., Richard A. Epstein, Implications for Legal Reform, in REGULATION THROUGH LITIGATION 325 (W. Kip Viscusi ed. 2002); Peter H. Schuck, The New Judicial Ideology of Tort Law, in NEW DIRECTIONS IN LIABILITY LAW 4-17 (Walter Olson ed. 1988); Peter H. Schuck, Benched: The pros and cons of having judges make the law, WASHINGTON MONTHLY, December 2000, at 35, 39; see generally Note, Edward T. Schroeder, A Tort by Any Other Name? In Search of the Distinction Between Regulation Through Litigation and Conventional Tort Law, 83 TEXAS L. REV. 897, 897-98 (2005) (summarizing the positions of these critics).

14 See infra Part I.

15 Cf. Richard S. Markovits, Second-Best Theory and Law & Economics: An Introduction, 73 CHICAGO-KENT LAW REVIEW 3 (1998) (outlining the theory of second-best, which predicts that one or more optimal conditions – i.e., vigorous engagement by a diverse set of affected interests – is not obtained, the results may not only not be optimal but may be suboptimal).
The important role of information costs is explored in this study by examining a set of complex, yet publicly important rules – the EPA’s standards governing air toxic emissions – to determine the role that the diverse set of affected interests play at all stages of the rulemaking. These hazardous air pollutant (HAPs) rules are the only rules that protect the public from industrial emissions of air toxins, yet they are generally quite lengthy, tedious, very detailed, require a high level of background information from readers, and have significant financial impacts on subsets of industrial parties. The study’s basic hypothesis is that regulated parties will not only dominate the notice and comment process, but they will also be involved at the ground floor in developing and drafting the agency’s initial proposal. Additionally, if they remain dissatisfied with the final rule, they will turn to the court system to challenge the rule in an effort to renegotiate the terms, again potentially out of the sunlight of the Administrative Procedure Act (APA).

At the risk of giving away the punch line, our study supports the concern that the pluralistic process model, which assumes vigorous interest group representation, may be breaking down in these complex rules. The first part of the paper sets out the conventional view of interest group engagement in environmental law – synthesized from disparate sources – against a different, information-based theory of administrative process that predicts that highly complex rules, even in situations where their impacts on public health are significant, will tend to fall off of the radar of vigorous pluralistic oversight and instead will be dominated by industry. The second part describes the existing empirical evidence bearing on these issues and sets out the design of the study. The third part describes the findings, and the fourth part collects information from disparate sources in detective-like fashion to explain some of the surprises and new questions that emerge from this research. In closing, rather than suggest possible reforms which seem premature from an empirical vantage point, we close with a preliminary agenda for future empirical research.

I. INTEREST GROUPS AND ADMINISTRATIVE LAW: THE DUELING THEORIES

In administrative law, rigorous engagement by a diverse and balanced assortment of affected interests, reinforced by an ability of these interests to challenge regulations in court, equates roughly with a form of democratic oversight and agency legitimacy. Professor Rubin observes that this pluralistic engagement is so important to current

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16 See infra Part II.
17 See infra notes 82-91 and accompanying text.
18 See infra notes 116-120 and accompanying text.
19 See infra notes 131-137 and accompanying text.
20 One of us has advanced reforms in a more theoretical treatment of the problem of information capture. See Wendy Wagner, Administrative Law, Filter Failure, and Information Capture, 59 DUKE L.J. Part IV (forthcoming 2010). Since this study is likely the first in a series and is not capable of testing the effects of information costs head-on, interested readers are referred to this complementary paper for suggestions about how administrative processes can be altered to better address these problems.
conceptions of administrative process that the Administrative Procedure Act (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.” Indeed, 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 groups [economic and community-based] in the rule-making process is essential in order to permit administrative agencies to inform themselves and to afford adequate safeguards to private interests.”

As Prof. 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. As a result, notice and comment is explicitly designed to open the door to any and all information that a party wishes to provide. Agencies do not place any limits on the content, technicality, or volume of this information and they can even actively solicit engagement to ensure that anyone with an interest in the proceeding can participate.

Agencies are further required by law to “consider,” which generally means to process and then respond to, all significant comments. If the agency does not do this, it again runs the risk that a court will reject its rule. A court, for example, may remand a rule if the agency too quickly dismisses a comment as unduly vague or nonspecific or refuses to address the commenter’s concerns in the final rule.

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23 See, e.g., Rubin, *supra* note 24, at 111 (arguing that some of the APA’s procedural requirements are modeled after “due process” protections in adjudication).
24 See, e.g., id. at 114 (2003) (“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 (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 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 1, at 1717–60 (discussing the importance of responding to comments in surviving judicial review).
28 See, e.g., Adams v. U.S. EPA, 38 F.3d 43, 51–53 (1st Cir. 1994) (concluding that the EPA had erred in ignoring comments for vagueness and holding that the EPA had sufficient notice from the comments for
held in reversing one of FDA’s good practices rules, “[i]t is not in keeping with the rational process to leave vital questions, raised by comments which are of cogent materiality, completely unanswered.”

Adding to the agency’s pressure to take comments serious is the hard look doctrine. This test emerged in the early 1970s as a way to increase oversight over what was then viewed as unbridled agency discretion and a serious risk of agencies being captured by the interests they were charged with regulating. In hard look review, the court closely scrutinizes the agency’s rule to ensure that it has adequately considered all comments and supported its contested assumptions.

Through these various process protections, interest groups are afforded – in theory – considerable opportunities to shape the agency’s rulemaking agenda and to hold them accountable if they diverge too far from the comments and other input provided. Coupled with these powerful oversight mechanisms are a series of additional measures intended to ensure the transparency of the agency’s deliberative process. Open records protections, sunshine in the use of advisory groups, and even opportunities for affected parties to negotiate the substance of the rule itself combine to produce the aura of an open and accessible government equally available to all. In his book, Professor Croley provides compelling case studies of high-visibility rules promulgated by several agencies, including the EPA, that were subjected to impressive displays of public interest advocacy made possible by these over-riding commitments to open and equal access to government.

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materiality purposes, which imposed a requirement on the EPA to respond; because it had ignored the comments, the EPA’s resulting action was arbitrary and capricious).

29 Nova Scotia, 568 F.2d at 252.

30 Professor Pierce argues that:

To have any reasonable prospect of obtaining judicial affirmance of a major rule, an agency must set forth the basis and purpose of the rule in a detailed statement, often several hundred pages long, in which the agency refers to the evidentiary basis for all factual predicates, explains its method of reasoning from factual predicates to the expected effects of the rule, relates the factual predicates and expected effects of the rule to each of the statutory goals or purposes the agency is required to further or to consider, responds to all major criticisms contained in the comments on its proposed rule, and explains why it has rejected at least some of the most plausible alternatives to the rule it has adopted.

Id. at 593.

31 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.”).

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


36 These are the case studies that Professor Croley considers in his book. See CROLEY, supra note 5, at 242. As Croley admits, however, his case studies all focus on examples that not only involved vigorous engagement by the public interest community but were actually triggered by petitions filed by these very
The success of this interest group representation model is hardly assured, however, and political scientists have been particularly pessimistic about its potential to overcome entrenched forms of agency capture in settings where the diffuse public’s interests are pitted against a concentrated group of regulated parties. Professors Gormley and Wilson both caution that in these settings, the costs of organization may impede adequate representation of the public interest, particularly when the rulemaking issues are not salient and are also complex. In his classic four-quadrant 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. Prof. Gormley similarly predicts one-group dominance when regulatory issues are not salient and are highly complex.

Yet, despite their warnings, these same political scientists, as well as others, generally conclude that at least in environmental rulemaking, the public significance of EPA’s pollution control rules raises the rule into the public realm where they will receive at least some, and likely quite vigorous oversight by public interest groups. While the diffuse public is admittedly handicapped by collective action problems, so the story goes, for rules that matter (i.e., all public health and environmental rules), the public interest groups will take on the fight in David v. Goliath fashion, particularly given the multiple, low-cost access points to the administrative process. Although Prof. Stewart was at least skeptical about whether this interest representation model would adequately protect the public

same groups. See id. at 242–23. Once in the public eye, however, rule complexity is substantially mitigated by the interest groups’ efforts to communicate their message to this now-engaged audience. These publicly debated rules also appear relatively rare, leaving most of the remaining complex and technical rules unaccounted for.


38 See WILSON, supra note 37, 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.

39 See Gormley, Jr., supra note 37, at 607–08 (qualifying as subject to one-sided interest-group dominance what he calls “board room politics” – which are those rules for which the information is highly complex).

40 See, e.g., WILSON, supra note 37, at 385 (suggesting that environmental groups can hold industry accountable and participate equally in regulation); Gormley, supra note 37, at 600 tbl.1 (including among the high-complexity, low-salience rules: “Cable Television Regulation,” “Antitrust Regulation,” “Securities Regulation,” “Insurance Regulation,” “Banking Regulation,” “Telephone Regulation,” “Transportation Regulation,” “Hospital Regulation,” and “Patent Regulation;” and including in the high-complexity, high-salience rules: “Hazardous Waste Regulation,” “Air Quality Regulation,” “Water Quality Regulation,” “Occupational Safety,” and “Health Regulation”).
interest in practice,\textsuperscript{41} whatever initial reservations he and others may have had in the 1970’s seem to have given way to recurring legal celebrations that followed in the wake of the courts’ liberation of standing rules and the expanded grounds available for challenging informal rulemakings in court. Indeed, the optimistic image of vigorously pluralistic rulemaking processes goes one step further: It not only perceives balanced, adversarial participation in most environmental rulemakings, but it holds great hope for these processes – particularly through notice and comment and judicial review – to serve as an additional leveling device to rectify inevitable imbalances in political influence.\textsuperscript{42}

Missing from the optimistic accounts, however, is any accounting of the practical impact of information costs in administrative process and how these costs may structurally skew deliberative and democratic processes in ways that lead to less, rather than more accountable agency decisions.\textsuperscript{43} A continuous barrage of letters, telephone calls, meetings, follow-up memoranda, formal comments, post-rule comments, petitions for reconsideration, and notices of appeal from one sector of flush interest groups over the life cycle of a rulemaking can have a “machine-gun” effect on overstretched agency staff.\textsuperscript{44} Moreover, the law does not permit the agency to shield itself from this flood of information and focus on developing its own expert conception of the project. Instead, the agency is required by law to “consider” all of the input received and respond to it, with the threat of judicial review looming.\textsuperscript{45}

Thus, while collective action theory already highlights the difficult plight of public interest groups saddled with multiple handicaps in organizing and participating,\textsuperscript{46} complex and technical rulemakings add a new worry to the collective action story: They reveal that the costs of organizing are not the only impediment that public advocates need to overcome. Instead, inflated information costs associated with understanding and engaging in a rule, beyond what is justified or necessary, further drive up the cost of participation and simultaneously lower the payoff, at least to groups advocating for greater health and welfare protections since they will find it increasingly difficult to translate the complicated issues into tangible public benefits.\textsuperscript{47} In economic terms, as the costs go up and the payoff goes down, thinly financed and media-dependent groups that

\begin{itemize}
  \item \textsuperscript{41}See, e.g., Stewart, supra note 1 at 1763; see also id. at 1803 (“Full 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.”).
  \item \textsuperscript{42}See, e.g., CROLEY, supra note 5, at 242 (introducing the case studies, but also conceding that they were all prompted by lawsuits by public interest organizations against the agencies).
  \item \textsuperscript{43}See generally Wagner, supra note 20, at Part II (laying out this argument).
  \item \textsuperscript{44}JAMES LANDIS, REPORT ON REGULATORY AGENCIES TO THE PRESIDENT-ELECT 51 (1960).
  \item \textsuperscript{45}5 U.S.C. § 553(c) (2006).
  \item \textsuperscript{46}See, e.g., RONALD J. HREBENAR, INTEREST GROUP POLITICS IN AMERICA 329–30 (3d ed. 1997) (discussing the impediments faced by representatives of the diffuse public in relation to more concentrated interests, as well as their struggles to keep up in recent times); NEIL K. KOMESAR, IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY 69–72 (1994) (describing collection action problems with particular reference to how they impede smooth functioning of the political process).
  \item \textsuperscript{47}See, e.g., Wagner, supra note 20, at Part 1.b.
\end{itemize}
represent the public will drop out and find themselves forced to triage their resources on only a few of the many rules that affect public health and welfare. 48

Administrative law, moreover, is partly if not primarily to blame for these problems. In administrative law, the absence of limits on the quality, quantity, or content of information submitted to the agency makes the temptation to inundate the agency with reams of technical details, voluminous and redundant arguments, and the continuous layering of minutiae all but irresistible. 49 Indeed, a variety of doctrinal and statutory incentives unwittingly encourage regulatory participants to load the administrative system with more and more information in ways that ultimately undermine pluralistic oversight by creating unfair advantages for advocates who have the resources to engage in these excessive processes. 50

If an interest group plans to file comments that can be backed by legal challenge, for example, administrative law makes it clear that the group should raise every conceivable point of difference with the agency in as much detail as is possible. 51 Moreover, since administrative law places no restrictions on the size, number, or technicality of the issues that can be raised, the sky is the limit on nitpicking. 52 As long as the court reviews the agency’s action based on an unlimited record that commenters have a hand in creating, information becomes akin to a choke collar that can be used by affected groups to control the agency’s factual record and even its policymaking agenda. Attorneys working primarily for industry stress that the most important task for their clients is to “build the best record” they can, observing that “[w]ritten comments are the single most effective technique” for doing so: “Make sure that you submit to the Agency all relevant information supporting your concerns in the rulemaking. This is the best way

48 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 KOMESAR, supra note 46, at 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.

49 See Wagner, supra note 20, at Part I.a. (laying out this theory in greater detail).

50 Id.

51 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); Natural Res. Def. Council, Inc. v. Thomas, 805 F.2d 410, 419 (D.C. Cir. 1986) (holding that arguments not raised during the comment period may be foreclosed in later proceedings). See also Clean Air Act, 42 U.S.C. § 7607(d)(7)(B) (2006) (“Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review,” with limited exceptions).

52 See, e.g., Natural Res. Def. Council, Inc. v. SEC, 606 F.2d 1031, 1052 (D.C. Cir. 1979) (“[T]he record presented to us on appeal or petition for review is a sump in which the parties have deposited a sundry mass of materials that have neither passed through the filter of rules of evidence nor undergone the refining fire of adversarial presentation”); Fla. Peach Growers Ass’n v. Dep’t of Labor, 489 F.2d 120, 129 (5th Cir. 1974) (lamenting that the record is “some 238 documents occupying approximately two and one half feet of shelf space” that contains a mix of technical information); Aqua Slide ‘N’ Dive Corp. v. CPSC, 569 F.2d 831, 837 (5th Cir. 1978) (observing that judicial review was complicated by the record, which consisted of a “jumble of letters, advertisements, comments, drafts, reports and publications . . . run[ning] for almost 2,000 pages . . . [with] no index”).
to convince the Agency to respond favorably to your concerns." The aggregate picture that emerges is a regulatory system that subjects agencies to a barrage of information that they not only must process and respond to, but that can be used against them in court. The resulting, rising information costs associated with a typical informal rulemaking serve as a potentially formidable barrier to equitable participation in ways that resemble the outcomes expected from more traditional forms of capture, but the mechanisms are actually quite different and at odds with these early public choice models. Most versions of old-fashioned agency capture depend on malleable agency staff and officials to be wooed by contributions or promises of future employment. The information capture hypothesis predicts pluralistic breakdown regardless of and even in cases where officials are principally opposed to the positions taken by regulated parties. Democratic administrations will be just as susceptible to capitulating to the dominant regulated parties in complex rulemakings affecting public health as Republican administrations. The end result, however, is the same. Just like old-fashioned capture, in information capture the stakeholders with relatively greater resources are able to dominate the outcomes and often do so free of oversight by onlookers, not because the deals have been struck through financial inducements, but because they are so technical and complicated that representatives of the diffuse public cannot afford to engage in all or perhaps even understand many of the rulemakings that affect their constituencies.

Professor William Gormley fully appreciated these pluralistic impediments arising in complex rules. In his classic 1986 article on regulatory issue networks, Professor William Gormley argued that a single model of the administrative process could not explain interest group participation and that the administrative process should be thought of instead as comprised of separate subunits (processes) arranged according to the “salience” and “complexity” of the rulemakings. For rules that are highly complex and non-salient, for example, Gormley predicted that “board room politics” would prevail (i.e., a single set of interests work closely with the agency to develop the rule in a relatively nontransparent setting), much as capture scholars predict. See Table below.

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53 See, e.g., Andrea Bear Field & Kathy E.B. Robb, EPA Rulemakings: Views from Inside and Outside, 5 NAT. RESOURCES & ENV'T, Summer 1990, at 9-10 (collecting the most important advice from the top attorneys interviewed for their report).
54 See, e.g., 1 RICHARD J. PIERCE, JR., ADMINISTRATIVE LAW TREATISE § 7.4, at 594 (5th ed. 2010) (“If a comment criticizes in detail some characteristic of the agency’s proposed rule . . . and the agency retains that characteristic in the final rule without including in its statement of basis and purpose a relatively detailed response to that criticism, a reviewing court is likely to hold the rule unlawful . . . .”).
55 See, e.g., 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 by contributing votes and resources); Michael E. Levine & Jennifer L. Forrence, Regulatory Capture, Public Interest, and the Public Agenda: Toward a Synthesis, 6 J.L. ECON. & ORG. 167, 178 (1990) (“‘Capture’ is the adoption by the regulator for self-regarding (private) reasons, such as enhancing electoral support or post-regulatory compensation, of a policy which would not be ratified by an informed polity free of organization costs.”).
56 See Gormley, Jr., supra note 37, at 607–08.
Unfortunately, Professor Gormley himself may be somewhat to blame for the subsequent, questionable application of his theory. With limited empirical support and surprisingly few disclaimers, Gormley assigned rulemaking activities to four different quadrants. (See Table below). Specifically, for the environmental rules, rather than draw out the inevitable differences in complexity and salience among different sets of rules, as his model seemed to demand, Gormley lumped all environmental regulation into the upper right quadrant as both “salient” and “complex,” where interest group conflict is expected to be intense.\(^57\) This categorization may have been influenced in part by James Q. Wilson’s observation that for environmental and public health rulemakings, the entrepreneurial public interest advocates seemed to be keeping up with industry representatives.\(^58\) Whatever the case and while Gormley’s article did not purport to offer the final word on these classifications, his own analysis likely helped reinforce the perception of environmental rulemakings as generally subject to vigorous conflicts among a diverse group of affected parties despite their complexity.\(^59\)

\(^{57}\) See Gormley, supra note 37, at 598 ("A highly salient issue is one that affects a large number of people in a significant way. Expressed a bit differently, salience is low unless the scope of conflict is broad and the intensity of conflict is high.").

\(^{58}\) See, e.g., Wilson, supra note 37, at 385 (suggesting that environmental groups can hold industry accountable and participate equally in regulation).

\(^{59}\) Professor Gormley’s and Wilson’s largely unsupported and potentially erroneous categorizations are nevertheless perfectly understandable. Both Gormley and Wilson published their work relatively early in the development of social regulation (in 1980 and 1986), before and only shortly after hard look review became established in the case law, around 1983. See, e.g., Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29 (1983). That these theorists did not anticipate the rising technicality, over-legalization, and litigiousness of informal rulemaking is thus perfectly understandable, and their resultant optimism regarding the salience of the rules and capabilities of public entrepreneurs to persevere in spite of rising information costs is thus forgiveable. Second, Wilson and Gormley’s original applications appeared to be offered more as illustrations, rather than providing the last word on the appropriate categorization of various sets of rules. Indeed, both theorists likely expected that considerable empirical work would soon follow to confirm their preliminary sketch.
II. EXISTING EMPIRICAL RESEARCH AND THE ROLE AND DESIGN OF THIS STUDY

This study picks up where Professors Wilson and Gormley left off by testing the conventional wisdom and resultant administrative law optimism against an “information capture” theory. Specifically, the study hypothesizes that in highly complex, but publicly important rules where there is not a subgroup of heavily affected and engaged beneficiaries, regulated parties will tend to monopolize all stages of the rulemaking. As just outlined, administrative optimists maintain that open government, equal access to the courts, and other similar “government in the sunshine” reforms enable those advocating for the protection of public health and welfare on behalf of the diffuse public to engage vigorously in rulemakings that impact public health and provide an adversarial counterbalance dominated by high stakes, regulated parties. The information capture theory argues that this optimistic account neglects the very real and important role of information costs in impeding participation by less well-financed interest groups. Indeed, not only does the information capture hypothesis predict that these information costs will lead to potentially dramatic under-representation of the diffuse public in public health and environmental rulemakings, but that the legal tools and levers perversely allow dominant private stakeholders to better control the agency’s agenda, with still greater losses to public health and welfare protection.

See generally Wagner, supra note 20.

See, e.g., id. at Part III; see also infra notes 102-108 and accompanying text.
Currently, there is very little empirical evidence available on these general questions. A critical reason for this gap is the difficulty of 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.

This section surveys the existing, albeit limited empirical evidence that bears on whether rulemakings in general benefit from vigorous pluralistic oversight. The section then closes with a discussion of how the current study fits within this larger body of research and outlines, in general terms, the methods and hypotheses tested.

A. Existing Empirical Research

Several empirical studies already refute the rosy picture of rigorous pluralism in informal rulemakings. Professors Yackee and Yackee, Golden, Coglianese, and Cropper et al all conducted studies that assess the diversity of interest group representation in environmental and public health rules and each find the public interest groups absent from about half of the rules in their data set. For the other half of the rules, the authors observe no public interest group engagement. Overall, business interests provide more comments, and often significantly more comments, than public interest groups, even in rules where public interest groups are engaged.

Despite the potential importance of these studies in raising doubts about the healthy operation of pluralistic processes, each of the studies has limitations that seem to

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64 See id. at 133 (studying forty low-salience rulemakings promulgated by four different federal agencies and finding that business interests submitted 57 percent of comments, whereas nongovernmental organizations submitted 22 percent of comments, 6 percent of which came from public interest groups).


68 See Golden, supra note 65; Yackee & Yackee, supra note 63.
blunt their impact, particularly when it comes to assessing the effectiveness of pluralistic processes in publicly important rulemakings. Professor Yackee and Yackee’s excellent study, for example, does find that business interests enjoy disproportionate influence and participation in low-salience rules during the comment process, but the authors examine only forty low salient rules promulgated by four agencies.69 The small sample size and an exclusive focus on low salient rules are cited by skeptics as reasons to question the generalizability of Profs. Yackee and Yackee’s findings to rules that have elevated public significance.70 Professor Golden’s earlier study offered one of the first clear glimpses into the rulemaking process, but this study involved a very small sample size (N=8 rules) spread over three agencies and was done by the author without any apparent reliability testing or other means of independently verifying the quality of the content-coding used to generate the data.71 Professor Coglianese’s study, by contrast, does focus exclusively on EPA rules and targets significant rules promulgated within a sector of pollution control – those governing hazardous wastes.72 He finds participatory imbalances favoring industry at every stage of the rulemaking life cycle.73 However, Professor Coglianese’s study does not actually test for the influence (as opposed to the participation) of interest groups, in part because that was not the focus of his research, and thus his study only offers evidence of imbalanced engagement, not evidence of whether this imbalance ultimately matters. Additionally, Prof. Coglianese’s results were largely qualitative and many of his findings were not published, which further limits their influence.

The limitations in these studies are further overshadowed by two studies that have been read, by some, to provide evidence that pluralistic engagement is alive and well, or at least relatively vigorous in environmental rulemakings. Drs. Magat, Krupnick, and Harrington conducted an elaborate statistical analysis of whether EPA’s technology-based water pollution control standards changed between the early drafts to the final rule and, more importantly, tried to understand why these changes occurred by examining the external influences on the agency.74 Their results showed highly variable differences between rules in the direction of the changes, and they concluded that the capacity of business interests to influence EPA was also highly variable.75 Drs. Cropper et al. examined interest group participation in rulemakings related to pesticide cancellations and found that EPA did not favor business interests (i.e., agricultural growers) over environmental groups.76 Their study did not consider the influence of pesticide manufacturers in the pesticide cancellations, however, and thus it is difficult to draw any

69 See Yackee & Yackee, supra note 65.
70 Id.
71 See, e.g., CROLEY, supra note 5, at 129.
72 See Coglianese, supra note 66.
73 See id. at 75, Table 2-2, p.73, and 183 (identifying these imbalances at each stage of the rulemaking life cycle).
75 See id. at 157 (concluding that “formal industry comments appears to have a highly limited influence in the rulemaking process”).
76 See Cropper et al., supra note 67, at 193-95.
conclusions about the role of industry relative to the public interest groups from their findings. 77

In sum, while several important empirical studies call pluralists’ understanding of rulemakings into question, they are countered by studies that are more positive about interest group balance in rulemakings. Equally important for our purposes, none of these studies examines interest group participation in rules that are exclusively complex and technical, and also publicly important (or at least makes this feature a condition to the rule selection methods). Finally, most of the studies have focused on notice and comment with little attention to pre-proposal and post-final stages of the rulemaking lifecycle 78

B. Study Design

Relying in part on the methodological approach of Professors Golden 79 and Yackee and Yackee, 80 this study identifies rules that are particularly technical and complex but that affect public health and environment in a significant way and posits that these technical, but salient rules represent a significant challenge for pluralism. Specifically, the study hypothesizes that the complicated and technical nature of the regulatory exercise, which raises the participation costs for interest groups, will affect the balance of interest groups who can engage in the rulemaking. It is further hypothesized that the inherent complexity of these technical rules also allows some interest groups (namely those that enjoy superior information over the technical details) to be more valuable to the agency than other interest groups, particularly during the proposed rule. These cumulative participatory imbalances are further hypothesized to produce imbalanced influence, with changes to the final rules that mirror imbalances in participation. Finally, given their tenacious involvement and well-developed record, these same groups are hypothesized to continue to dominate the legal proceedings during the petition and litigation stages, which occur after the final rule is published. The cumulative imbalances – occurring during the development of the proposal, during notice and comment, and after the rule is final – lead to the possibility of a process that is badly skewed. The specific hypotheses tested in the study are provided in Figure 1.

77 See id. at 187 (discussing that they did not measure the influence of pesticide manufacturers).
78 See, e.g., Balla, supra note 62, at 67 (observing the lack of attention to other stages of the rulemaking life cycle).
79 See Golden, supra note 65.
80 See Yackee & Yackee, supra note 63.
Because the thin body of existing research makes it both unwieldy and premature to test the information capture hypothesis directly, this study focuses on the first-level question of whether there even is a significant imbalance in interest group representation in complex but publicly important rules. To test the information theory directly, one would need to compare publicly important rules that are simpler and less complex with technical, complex rules like those in our current dataset. Yet such a study is several-fold greater in scope than this still somewhat ambitious, first level study. If imbalance is found in this study, then the next step is to develop methods that can illuminate whether rule complexity does correlate with broad and diverse interest group representation and influence, as well as to explore whether there are other explanations for this lack of pluralistic oversight in some publicly important rules.

Although there are a number of highly technical, but public important rules to chose from, this study examines the EPA’s hazardous air pollutant standards (or HAPs), which are not only highly complex but also have important implications for public health

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1. Hypothesis 1: Participation on technical and complex EPA rules will be imbalanced in favor of the regulated parties during notice and comment and the final rules will reflect some of this imbalance in the changes the agency makes to the final rule.
   1.a. The constellation of participants engaged in notice and comment will favor regulated parties over public interest groups.
   1.b. Imbalances in participation during and notice and comment will translate into similar imbalances in influence in the final rule. In settings where comments are imbalanced (see #1a), influence will also be imbalanced.

2. Hypothesis #2: Regulated parties will also attempt to influence the substance of the rule before and after the formal rulemaking life cycle.
   2.a. Regulated parties will engage disproportionately relative to public interest groups in the development of a rule, before the proposed rule is published for notice and comment.
   2.b. Regulated parties will continue to be heavily engaged -- and in greater proportion than public interest groups -- in attempting to influence the substance of the rule after the final rule is published.

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81 Because so very little is known about the regulatory state and because some of the limitations of earlier work arises because the authors subsampled a small number of rules, we determined that it would be most helpful to study the entire set of rules rather than to subsample. If we obtain funding to study rulemakings in the future in a way that allows us to compare simpler rules with complex rules according to the participation and influence variables, we would likely still examine entire sets of rulemakings rather than subsample. Given the substantial variability between rules within a category (such as the HAPs rules) – with often nearly opposite results – the standard tradeoffs between variation between versus within rule categories suggest that sub-sampling is risky and may reduce what can be learned about the regulatory process.

82 See 42 U.S.C. § 7412(d); 40 C.F.R. Part 63.
protection. These standards are the primary and often the exclusive means for reducing public exposure to air toxics.83

The HAPs rules provide a particularly good set of rules for testing the information capture theory since they are notoriously technical and involve issues that only an engineer could love. EPA is required by statute to survey currently available (or soon-to-be-available) pollution control technologies for classes and categories of industry and to select the technology in each industrial category that best fulfills congressional goals for vigorous but affordable pollution reductions.84 The EPA then converts the pollution reduction capabilities of the selected technology to numerical emission limits or actual specified technological fixes for each major industrial source of HAPs.85 A worried regulated party participating in a HAPs rule can identify countless issues that arise in each of these pollution control standards that might affect their operations and ultimate profitability, as well as the rigor of the standard for public health.

The HAPs rules are also a good choice for study for several other reasons. First, technology-based standards like HAPs are the most common type of regulatory standard promulgated by EPA.86 Within the three-hundred regulations that EPA promulgates annually,87 many if not most involve this type of industry- or product- specific rules.88

84 See 42 U.S.C. § 7412(d)(3) (requiring, for example, that emissions from existing plants should meet at least “the average emission limitation achieved by the best performing 12 percent of the existing sources”).
85 This step, which requires making assumptions about “average” industry pollution loads and how well the selected technology reduces pollution, can be quite controversial. The 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).
87 Professor Coglianese estimated that the EPA promulgated 334 rules per year from 1986 to 1990. See Coglianese, supra note 66, at 2 n.2 & app.1. In an ongoing empirical project to gauge the “newsworthy” features of at least some of these rules, a Lexis search of major newspapers was conducted for media coverage of the EPA’s promulgation of air toxic emissions standards over a twenty-year period. See, e.g., Wagner et al., supra note 20, at 31. The search found that only about 15 percent of ninety emissions standards were referenced in a major newspaper, despite their significance to public health protection. Id. Readers can gauge the newsworthy quality of EPA rules for themselves by running random searches for examples of typical EPA rulemakings in the Office of Management and Budget’s new Unified Agenda database. See RegInfo.gov, Advanced Search – Select Publication(s),
Additionally, HAPs rules are easier to study than some of these other pollution control statutes: Because the initial mandate requiring EPA to promulgate air toxic standards appeared in the 1990 Amendments to the Clean Air Act, rulemaking records are more recent and accessible than other pollution control standards. Finally, HAPs rules tend to remain complex and inaccessible throughout the rulemaking. Without a concerted effort by the agency or one or more interest groups to raise the visibility of one of these rules, they tend to remain under the public’s radar precisely because they are so complex and technical.

C. Study Methodology

The study assesses the extent of interest group participation during three stages of rulemaking process for one set of highly technical rules promulgated by EPA – the HAPs rules. It also assesses interest group influence during the notice and comment process by determining whether each final rule is weakened or strengthened as compared with the proposed rule. The detailed methods and sources of data are detailed in Appendix A. In this subsection we provide only the basic outline of the methods for the general reader.

The first and most straightforward component of the study involves collecting information on the type and number of interest group contacts with the agency throughout the rulemaking process. The agency’s docket index, which is the record upon which the rule is reviewed by the courts, provides the sole source of this information. In these lengthy docket indices, EPA logs in hundreds of contacts and communications from interest groups occurring before publication of the proposed rule, even though this is not strictly required by the APA, as well as all comments received during the notice and comment process. These docketed records provide information on the nature of the contact (i.e., letter, telefax, meeting), the affiliation of the party, and the date of the communication. Law students trained in the coding protocol then translate the interest...
group participation recorded in the dockets into quantitative information using a relatively straightforward coding scheme that itemizes, dates, and categorizes each interest group communication with EPA.

The actual influence of interest groups in affecting the final rule was measured by content-coding the Final Rule pre-ambulatory discussion of the most significant comments received on the proposed rule and the changes the agency made in response. In these perambulatory 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, as a result, weakened or strengthened the rule (i.e., eliminating requirements weakens a rule; adding comments or more stringent requirements strengthen a rule). See Figure 2. Each suggested change was coded separately and categorized by the nature of the comment (i.e., substantive, paperwork, compliance deadline). Measures of influence are thus based on EPA’s own characterization of the significant comments and its response.  

**Figure 2: Measuring Influence by Tracking the Comments and their Fate**

<table>
<thead>
<tr>
<th>Type of Response/Change</th>
<th>Decline weaken</th>
<th>Decline strengthen</th>
<th>Agree to weaken</th>
<th>Agree to strengthen</th>
<th>?</th>
</tr>
</thead>
</table>

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 the changes that “strengthen” the rule are assumed to come from the 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 assumption ultimately appears supported by the results. See Figure 3. While in some or perhaps many rules, cumulative changes weakening the rule may be small even when added together, the coding scheme does provide some indication of the tilt in the final rule relative to the proposed rule.

Finally, the study traces interest group activity after the final rule is published to determine whether additional changes are made under the shadow of judicial review. To track interest group activity at this much less transparent stage, multiple databases were collated. These databases provide information on whether one or more interest groups ultimately petitioned for reconsideration of the final rule, challenged the rule in court, and whether and how often the rule was revised after being promulgated as final.

As mentioned, by design the study is not able to isolate rule technicality and complexity as an explanatory variable. Nevertheless, if imbalanced participation does appear to be more significant in the HAPs rules, then the complexity and technicality of these rules is at least consistent with one of the explanations for this imbalanced interest group engagement. More importantly and as mentioned above, given the dearth of empirical research on rulemakings, one simply cannot test all facets of the theory in a

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93 The current study takes for granted that these characterizations are accurate, although in future research we hope to test the accuracy of this assumption.
single study. The first step is to determine whether there is imbalanced interest group participation in complex rules. If there is no evidence of imbalance, then subsequent more elaborate studies are not warranted. Conversely, if imbalanced participation and influence does occur, then more study is needed.

III. RESULTS

The results reveal imbalance in interest group participation at each of the three stages of rulemaking in ways that favor industry over public interest groups, in some cases significantly. Since these findings are at odds with the image of interest group representation portrayed in much of the administrative literature, our results will hopefully encourage further empirical research on participatory dynamics in public rulemakings. The specific findings are detailed below.

Hypothesis 1: Participation on technical and complex EPA rules will be imbalanced in favor of the regulated parties during notice and comment and the final rules will reflect some of this imbalance in the changes the agency makes to the final rule.

1.a. The constellation of participants engaged in notice and comment will favor regulated parties over public interest groups.

This study tests the hypothesis that participation during the notice and comment process of highly complex but publicly important rules will be dominated and even monopolized by industry. As a simple matter of economics, highly technical and complex rules require more resources to participate. They 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. 94

The results of the study lend strong support to this hypothesis and reveal significant imbalances in participation in the engagement of interest groups during notice and comment. On average, industry comments (industry plus industrial associations) comprised over 76% of all of the comments submitted on the HAPs rules during the notice and comment period. See Table 1 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 (46%) of the rules. When the public interest groups did participate, moreover, they were badly outnumbered by industry participants. The mean

94 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 KOMESAR, supra note 46, at 8. 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.
number of comments per rule filed by public interest groups across all rules was 1.9 (5%) as compared to a mean number submitted by industry of 30 (76.9%) comments per rule.\textsuperscript{95}

### TABLE 1: Interest Participation During Notice and Comment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>25\textsuperscript{th} percentile</th>
<th>75\textsuperscript{th} percentile</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total #</td>
<td>39</td>
<td>51.7</td>
<td>12</td>
<td>50</td>
<td>358</td>
</tr>
<tr>
<td># Industry Commenters</td>
<td>30</td>
<td>40</td>
<td>8</td>
<td>36</td>
<td>258</td>
</tr>
<tr>
<td>% Industry Comments</td>
<td>77.5%</td>
<td>17.1%</td>
<td>67.6%</td>
<td>90.1%</td>
<td>72.0%</td>
</tr>
<tr>
<td># Public Interest Commenters</td>
<td>1.9</td>
<td>6.7</td>
<td>0</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td># State Commenters</td>
<td>4.6</td>
<td>6.0</td>
<td>0</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td>% Public and State Comments (combined)</td>
<td>15.9%</td>
<td>13.5%</td>
<td>5.6%</td>
<td>25%</td>
<td>56.3%</td>
</tr>
</tbody>
</table>

Imbalances in representation in the HAPs rules are greater than identified in other studies. In their study, Professors Yackee & Yackee found that business interests submitted 57% of comments, whereas non-governmental organizations submitted 22% and public interest groups submitted 6%.\textsuperscript{96} In his study of the twenty-five significant rules promulgated under RCRA from 1989 to 1991, Prof. Coglianese found that businesses participated in 96% of the rules; national environmental groups participated in 44%.\textsuperscript{97} Prof. Coglianese does not report on the average number of comments filed by each group.

Additionally, although it is not possible to assess their complexity relative to other EPA or other agency rules, as a qualitative matter the HAPs rules are quite complex and technical, which presumably adds significant costs for participants, particularly those lacking accessible information on industry practices.\textsuperscript{98} Table 2 provides some basic characteristics of the HAPs rules. The index of the rulemaking record for each HAPs standard is quite long – routinely over fifty to one-hundred pages of indexed documents the agency considered in developing the final rule. In published form in the Federal Register, most of the rules were similarly long: Including the preamble, the final rules averaged 39 pages, although the length was quite variable with a maximum page number of 223 pages. Virtually every page, moreover, was filled with technical discussions that demand a high level of specialized knowledge.\textsuperscript{99} The rules also generated considerable

\textsuperscript{95} The mean number of comments filed per rule was 39, which appears to be slightly less comment activity than Yackee and Yackee found for their low salience rules, which averaged about 42 comments/rule. See Yackee and Yackee, supra note 65.

\textsuperscript{96} See id.

\textsuperscript{97} See Coglianese, supra note 66, at 50 tbl.2-2.

\textsuperscript{98} Indeed, a random sample of any of the EPA’s technology-based standards should convince a skeptical reader of the near-unintelligibility of these rules, even without reading the more dense preambles the agency prepares to defend its rule. Although the EPA’s rules are likely to vary in their complexity, the fact that they are generally quite complicated and technical seems uncontestable.

\textsuperscript{99} The detailed, technical features of the rules should not be underestimated. The following excerpt is from the EPA’s explanation of how it responded to significant comments on its pollutant standards for the
comment activity: On average, each rule involved 27 significant issues raised by the commenters in their comments. In addition, most (about 70%) of the commenters sought relatively substantive changes to the rules; a smaller number sought more minor changes, like reductions in paperwork or monitoring requirements.

**Table 2: Additional Characteristics of the HAPs Rules**

<table>
<thead>
<tr>
<th>Types of Rule Changes Suggested by Commenters (total)</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>- substantive changes (including coverage of rule and flexibility in meeting the standard)</td>
<td>24</td>
<td>20.5</td>
<td>107</td>
</tr>
<tr>
<td>- compliance timeline</td>
<td>1.1</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>- paperwork requirements</td>
<td>1.6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Number of Significant Rules</td>
<td>39 (43%)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Number of Rules Affecting Small Businesses</td>
<td>5 (6%)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Number of Pages of Final Rule</td>
<td>39</td>
<td>29</td>
<td>223</td>
</tr>
</tbody>
</table>

emissions of hazardous air pollutants from acrylic and modacrylic fiber production. This excerpt is not a random selection, but it is a relatively representative sample of the level of specialized knowledge and background information that the EPA demands from its readers:

ii. Can the pollution prevention control techniques being used by several of the plants with suspension spinning operations be used for the solution process in existing facilities? Although the air emission and source characteristics for all other emission point types (i.e., tanks, equipment components, wastewater treatment units) are similar throughout the source category, the solution and suspension processes associated with the spinning operations differ from each other in the processing steps and the acrylonitrile concentrations in the process materials and associated emissions. Solution polymerization spin dope for fiber production contains, by product and process design, a significantly higher concentration of residual AN monomer than does suspension polymerization. The public comments [filed by industry] argued that the application of the pollution prevention techniques being used for suspension processes (e.g., steam stripping of excess monomer, scavenger solvents) to existing solution processes is not viable because of the physical nature of the solution polymerization process. Specifically, application of high efficiency residual AN polymer steam stripping (incorporated to reduce downstream emissions) is technically feasible to incorporate into the suspension process and is not feasible for a solution polymerization process because the latter does not produce a solid polymer product that can be introduced to direct steam contact without contamination. At solution polymerization facilities, other pollution prevention or source reduction measures which formed the initial technical basis for determining the 100 ppmw action level for all spinning lines may not be capable of achieving the higher AN removal rates of the higher residual monomer concentration present in solution polymerization fiber spinning operations. We agree with the public comments that incorporating the pollution prevention techniques to an existing solution process spinning line is not viable.


100 The reliability score for this data was 0.64. Refer to Appendix A for a discussion about how inter-coder reliability was measured.

101 The reliability score for this data was 0.64. Refer to Appendix A for a discussion about how inter-coder reliability was measured.
1. b. Imbalances in participation during and notice and comment will translate into similar imbalances in influence in the final rule. In settings where comments are imbalanced (see #1a), influence will also be imbalanced.

The study also explores whether interest group comments filed during notice and comment translate directly into interest group influence. One of the overriding concerns of agency staff is to prepare a rule that withstands judicial review.\(^{102}\) If each detailed and well-supported comment raises a litigation risk, then the agency can be expected to make changes that are roughly proportional to the total number of comments, rather than favoring the comments of an underrepresented constituency. Conversely, if a party does not participate in notice and comment (i.e., the public interest groups for more than half the rules), then its concerns cannot be litigated. In such a case, the non-commenter has failed to exhaust their remedies,\(^{103}\) and from the perspective of the agency who strives to limit their litigation risks, there are no legal incentives to take these stakeholder concerns into account. In his case study of the Occupational Safety and Health Administration (OSHA), for example, Professor Schmidt found that litigation-backed comments were the most influential precisely because they posed immediate risks to the fate of the rule.\(^{104}\)

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 an agency’s soft spot in litigation, and agencies are purported to be particularly amenable to making changes in their final rules based on comments that are technical in nature.\(^{105}\)

Finally, the courts’ review of agency rules is quite variable in ways that allow commenters to enjoy added influence to the extent that their comments threaten litigation.\(^{106}\) Prof. Mashaw characterizes reviewing courts “as robed roulette wheels

\(^{102}\) The pervasive influence of general counsel through the rulemaking process, particularly at the proposed and final rule stage, provides additional evidence that avoiding litigation is an important goal for the agency. Rosemary O’Leary, The Impact of Federal Court Decisions on the Policies and Administration of the U.S. Environmental Protection Agency, 41 ADMIN. L. REV. 549, 566 (1989).

\(^{103}\) 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).

\(^{104}\) See Patrick Schmidt, Pursuing Regulatory Relief: Strategic Participation and Litigation in U.S. OSHA Rulemaking, 4 BUS. & POL. 71, 80, 82, 86–87 (2002).

\(^{105}\) See, e.g., Field & Robb, supra note 53, 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. 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. By 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 in 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.

\(^{106}\) See ROBERT KAGAN, ADVERSARIAL LEGALISM: THE AMERICAN WAY OF LAW 223, 225 (2003) (underscoring how uncertainty in judicial review, coupled with adversarialism, leads to counterproductive
[that] churn[] out results–either ‘case dismissed’ or ‘remanded to the agency for further development’–in a fashion that approximated chance.”

This highly variable standards that courts adopt in reviewing agency rules likely cause the agency to be particularly skittish about responding to comments that pose the risk of imposing added delay, embarrassment, and bad precedent. As Professor R. Shep Melnick observes, “[s]ince agencies do not like losing big court cases, they reacted defensively [to the courts’ requirements], accumulating more and more information, responding to all comments, and covering their bets. The rulemaking record [grows] enormously, far beyond any judge’s ability to review it.”

Put in empirical terms, the pressures placed on agencies through judicial review lead to a prediction that comments will translate into influence, if not on a 1:1 basis, then at least in a way that suggests that greater comments from one sector will lead to imbalanced influence. Specifically, in the case of the HAPs rules, due to dominant industry participation during the comment period, one would expect final rules, on average, to be weakened, rather than strengthened in response to comments.

The study findings again support this hypothesis, although the there was not a 1 to 1 correspondence between industry comments and the nature of the changes the agency made to weaken a rule. On average, each rule involved 27 significant issues raised by the commenters in their comments and EPA made changes in response to roughly half (12.6) of these comments and rejected the rest. Consistent with dominant participation by industry, moreover, most of the significant changes that were made to the rules (80-87%) weakened them in some way, usually by eliminating some requirement that EPA originally suggested in the proposed rule.

Id. at 181.


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 A for a detailed discussion about 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 re-coding 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.
TABLE 3: Comparison of Influence

<table>
<thead>
<tr>
<th>Test</th>
<th>Industry Mean</th>
<th>Public Interest Mean</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Changes Weakening the Rule vs. % Changes Strengthening the Rule</td>
<td>81%</td>
<td>19%</td>
<td>62%***</td>
</tr>
<tr>
<td># Changes Weakening the Rule vs. # Changes Strengthening the Rule</td>
<td>11</td>
<td>2.3</td>
<td>8.6***</td>
</tr>
<tr>
<td>% Rejections of comments to weaken the rule vs. % Rejections of comments to strengthen the rule</td>
<td>31%</td>
<td>69%</td>
<td>-37%***</td>
</tr>
<tr>
<td># Rejections of comments to weaken the rule vs. # Rejections of comments to strengthen the rule</td>
<td>3.3</td>
<td>6.3</td>
<td>-3**</td>
</tr>
</tbody>
</table>

Less expected was the finding that EPA also rejected a large number of comments advocating the weakening of HAPs rules. In the average rule, a comment advocating for weakening the rule was rejected about twice as often than a comment advocating that the rule be made stronger. See Table 3. These results tentatively support the observations made by Croley and Katzen that there may be a natural inclination by EPA to “push back” against industry. Specifically, when taking into account all of the requested changes, including changes that coders could not identify as either strengthening or weakening the rule, EPA weakened the rule only 52% of the time and either strengthened the rule or rejected changes in all other cases. See Table 3.

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

111 The reliability of this calculation of public interest wins is quite low -- 0.36 -- a feature we attribute in part to the very low numbers in this quadrant and thus the higher probability of more than 20% difference between coders (i.e., one coder enters a 1; the other a 2). Refer to Appendix A for a discussion about how inter-coder reliability was measured.

112 See, e.g., CROLEY, supra note 5, at 159 (positing that “[i]t is plausible that agency regulators are motivated to do so as a result of their own commitments to the common good, which might after all account for why they became regulators in the first place”); id. at 282 (concluding from his case studies how the APA processes helped agencies inoculate rules from interest group pressures and allowed “publicinterested administrators . . . to pursue regulatory goals they believed advanced social welfare in the face of substantial opposition”).

113 SALLY KATZEN, CORRESPONDENCE, A REALITY CHECK ON AN EMPIRICAL STUDY: COMMENTS ON “INSIDE THE ADMINISTRATIVE STATE,” 105 MICH. L. REV. 1497, 1505 (2007) (observing how the EPA “focus[es] like a laser” on protecting the environment, whereas OIRA takes “a broader view and consider[s] how, for example, an environmental proposal will affect energy resources, tax revenues, health policy, etc.”).

114 Indeed and despite what seems like a powerful presence, industry did not exactly wipe out the public interest (if industry influence translates as suggested above primarily, although presumably not exclusively, into changes that weaken the rule) as one might expect from the relative ratio of industry to public interest comments (14:1 industry:public interest comments).
Table 4: A Comparison of Public Interest Comments and Industry Influence

<table>
<thead>
<tr>
<th>Interest Group Engagement in Notice and Comment</th>
<th>% of changes in weakening the rule</th>
<th>Number of rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>No public interest presence</td>
<td>84% (+/-24%)</td>
<td>49</td>
</tr>
<tr>
<td>Neither state nor public interest presence</td>
<td>87% (+/-20%)</td>
<td>19</td>
</tr>
<tr>
<td>State presence without public interest</td>
<td>83% (+/-27%)</td>
<td>29</td>
</tr>
<tr>
<td>Public interest comments range from 1 to 5</td>
<td>79% (+/-22%)</td>
<td>39</td>
</tr>
<tr>
<td>Public interest comments 6 or greater</td>
<td>73% (+/-20%)</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>80% (+/-23%)</td>
<td>94</td>
</tr>
</tbody>
</table>

The findings also reveal that when public interest groups are present, their presence matters, although there may be a ceiling or limit to their influence. As Table 4 reveals, the changes made to weaken the rule decline as public interest group participation increases. But Table 4 also suggests this public interest influence may plateau at a point where the number of changes made to weaken the rule – even with the highest level of public interest engagement – still exceed the changes made to strengthen it (dropping from 87% to 70% in changes made to weaken the rule). When one examines the number of public interest commenters, however, this limited influence makes sense. Even at the upper quartile of rules where public interest engagement is the highest, public interest comments number only two, as compared with 36 industry commenters at that same level. See Table 1. This power in numbers is further reinforced by the finding that the number of changes weakening the rule steadily increase as the number of industry comments increase, with a correlation coefficient of 0.46 that is significant at the 0.01 level.115 See Figure 3

115 It bears mention that 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.
Hypothesis #2: Regulated parties will also attempt to influence the substance of the rule before and after the formal rulemaking life cycle.

2.a. Regulated parties will engage disproportionately relative to public interest groups in the development of a rule, before the proposed rule is published for notice and comment.

Administrative case law strongly encourages agencies to prepare as final a rule as possible at the proposed rule stage to ensure that all parties have an opportunity to comment on that meaningful proposal, but this produces strong legal incentives for the

\[\text{Figure 3}\]

\begin{figure}
\centering
\includegraphics[width=\textwidth]{industry_comments_changes.png}
\caption{Industry Comments vs. Changes Made to Weaken Rule}
\end{figure}

\begin{align*}
\text{Industry Comments} & \quad \text{Changes Made to Weaken Rule} \\
\text{# of Comments} & \quad \text{# Changes Weakening Rule}
\end{align*}

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Administrative case law strongly encourages agencies to prepare as final a rule as possible at the proposed rule stage to ensure that all parties have an opportunity to comment on that meaningful proposal, but this produces strong legal incentives for the

\[\text{See generally William F. West, Formal Procedures, Informal Processes, Accountability and Responsiveness in Bureaucratic Policy Making: An Institutional Policy Analysis, 64 PUB. ADMIN. REV. 66 (2004)}\] (arguing that the pre-NPRM period provides rich opportunities for informal contacts and engagement by agencies with stakeholders). For example, the courts have made it painfully clear that if a rule is to survive judicial review, it must be in nearly final form at the proposed rule stage. \[\text{See, e.g., Shell Oil Co. v. EPA, 950 F.2d 741, 757–63 (D.C. Cir. 1991)}\] (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); \[\text{Chocolate Mfrs. Ass’n v. Block, 755 F.2d 1098 (4th Cir. 1985)}\] (same); \[\text{Weyerhaeuser Co. v. Costle, 590 F.2d 1011, 1021 (D.C. Cir. 1978)}\] (same); \[\text{see also Envtl. Integrity Project v. EPA, 425 F.3d 992, 995–98 (D.C. Cir. 2005)}\] (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 APA’s notice-and-comment requirements). Material changes made after this point require a new notice and comment process and may even require the agency to start over. \[\text{See generally I PIERCE, supra note 54, § 7.3 (discussing the extensive case law on whether an agency’s notice was adequate based on subsequent developments occurring after the proposed rule in the course of the rulemaking). To avoid the need to make “material” changes, the agency is eager to get it right the first time. See, e.g., E. Donald Elliott, Re-inventing Rulemaking, 41 DUKE L.J. 1490, 1495 (1992) (“Because of the need to create a record, real public participation—the kind of back and forth dialogue in which minds (and rules) are really changed—primarily takes place in various fora well in advance of a notice of proposed rulemaking appearing in the Federal Register.”). In fact, the basic incentive for agencies to produce nearly complete proposed rules arises from the commitment to due process embedded by the courts into informal rulemakings, which in theory demands that parties have an}\]
agency to push the deliberations and interest group input earlier in the process. More
inconveniently, moreover, these early deliberations (the pre-Notice of Proposed
Rulemaking or pre-NPRM stage) need not be recorded in the docket or made public.\textsuperscript{117} Since industry possesses a great deal of technical information about their operations, the
capabilities of various pollution control technologies, and the details involved in
installing, maintaining and monitoring pollution control equipment, the agency is likely
to be quite eager for their feedback at this early stage.\textsuperscript{118} Such communications allow
EPA staff to better anticipate and address technical issues or complexities that could hang
the rule up later.

In the HAPs rules, one would expect these legal incentives to cause EPA and
industry to engage extensively in discussions and communications prior to publication of
the proposed rule.\textsuperscript{119} For a variety of reasons, which include their more limited
knowledge of industry-based technical issues central to the rulemaking, public interest
groups are expected to have a much weaker participatory presence at the pre-NPRM
stage.\textsuperscript{120}

The results – an extremely high level of industry engagement with very little
participation from public interest groups – strongly support the hypothesis of heavy
industry involvement in the development of the agency’s proposed rule.\textsuperscript{121} Specifically,
the data reveal extensive industry contacts made in the pre-NPRM stage for all of the rules under study. Industry informal contacts during the pre-NPRM stage averaged 78 per rule. This includes all forms of communications (i.e., meetings, phone calls, letters). Another 76 written communications/rule (on average) during the pre-NPRM stage involved formal information requests that resulted in additional correspondence between the EPA and regulated parties, bringing the total communications between industry and EPA pre-NPRM to 153 pre-NPRM contacts/rule. By contrast, the average number of public interest contacts during the pre-NPRM stage is 0.7, with about two-thirds of these contacts consisting of meetings rather than correspondence. State regulators participated pre-NPRM, on average, with 9 contacts. See Table 5.

The results reveal that industry had at least 162 times more informal communications docketed, on average, with EPA during the pre-NPRM stage than public interest groups and that the industry had more than 10 times more informal contacts with EPA recorded than state regulators. As compared with the comment process, moreover, the results suggest that industry had about 3 times more informal contacts with EPA in the development of its proposed rule as compared to the formal comments filed by industry during the notice and comments process. Public interest groups, by contrast had about 3 times fewer pre-NPRM communications docketed, on average, as compared to their slim comment filings.

### Table 5: Informal Pre-NPRM Contacts

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Informal Written Communications between agency and interest group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># for industry</td>
<td>55.4</td>
<td>62.5</td>
<td>276</td>
</tr>
<tr>
<td># for public interest</td>
<td>0.24</td>
<td>0.80</td>
<td>5</td>
</tr>
<tr>
<td># for state</td>
<td>4.4</td>
<td>7.5</td>
<td>37</td>
</tr>
<tr>
<td><strong>Other Communications between agency and interest group (meetings, calls)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># for industry</td>
<td>28.2</td>
<td>53.8</td>
<td>268</td>
</tr>
<tr>
<td># for public interest</td>
<td>0.41</td>
<td>3.48</td>
<td>33</td>
</tr>
<tr>
<td># for state</td>
<td>4.0</td>
<td>9.6</td>
<td>62</td>
</tr>
<tr>
<td><strong>Total Informal Communications between agency and interest group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># for industry</td>
<td>83.6</td>
<td>102.1</td>
<td>446</td>
</tr>
<tr>
<td># for public interest</td>
<td>0.65</td>
<td>3.5</td>
<td>33</td>
</tr>
<tr>
<td># for state</td>
<td>8.4</td>
<td>14.2</td>
<td>73</td>
</tr>
</tbody>
</table>

The results, which to our knowledge provide the first quantitative assessment of the nature of interest group contacts occurring with an agency in the actual development of its proposed rule, suggest that this pre-proposal stage does involve extensive communications that seem likely to influence the nature and shape of the agency’s proposed rule. The findings are further reinforced by Professor Coglianese’s study of significant hazardous waste rules promulgated by the EPA from 1988 to 1991.\(^{122}\) Based on more than forty interviews with the EPA and stakeholders involved in EPA rules,

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\(^{122}\) Coglianese, *supra* note 66, at 37–52.
Prof. 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.” 123 In the general literature, legal counsel for industry participants openly encourage their clients 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.” 124 Indeed, there are several accounts of industry not only commenting but actually drafting the proposed rule as part of these pre-NPRM discussions. 125

What develops from the administrative process during the development of the actual rule, then, is a form of information symbiosis between the agencies and the most knowledgeable and resourceful groups. 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. 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 workgroups that will meet together. 126

Indeed, the EPA’s own training materials openly encourage these early contacts with its adversaries. “Negotiation and consultation with outside parties are an important part of the rulemaking process at EPA . . . . [This contact] brings outside information and

123 Id. at 51–52. 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 the 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.
124 Field & Robb, supra note 53, at 9.
125 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 the 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.

Coglianese, supra note 66, at 32 (alteration in original).
126 Id. at 26.
perspectives to the Agency’s decisions[,] . . . builds support for the Agency’s decisions[,] and increases the overall efficiency of EPA’s decision making process.”

The results of the study – particularly on this apparently significant and largely unstudied role of industry in the development of EPA’s HAPs rules – suggest that administrative law needs to broaden its current focus beyond the notice and comment period. If the law creates incentives for the agency to attempt to prepare an essentially “done deal” at the proposed stage, then scholars may want to consider in more depth whether these incentives are having perverse effects on ensuring open, transparent, and balanced interest group engagement during the notice and comment process. Yet, with a few important exceptions, little attention has been given to this potentially important pre-NPRM stage with respect to interest group representation. Instead, the bulk of scholarly attention, both empirically and within the administrative law literature, seems focused instead on the notice and comment process.

2.b. Regulated parties will continue to be heavily engaged -- and in greater proportion than public interest groups -- in attempting to influence the substance of the rule after the final rule is published

From a legal vantage point, comments filed during the notice and comment period are not only a critical way to convince the agency to make changes to the final rule, but create a record that the interest group can then use to challenge the rule legally after it is final. It is not surprising, therefore, that development of substantive requirements in a rulemaking do not always end with publication of the final rule. What may be more surprising, although in hindsight is perfectly logical, is that a fair amount of this post-final rule petitioning and pressure may occur largely behind closed doors. And some of it may occur when the legal claims appear, in reality, to be relatively weak.

In his unpublished study of EPA’s RCRA rulemakings, Professor Coglianese observes based on dozens of interviews 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.” 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

127 Id. at 32–33 (alterations in original) (citing EPA, FACT SHEET 12 (Feb. 1992)).
128 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 agency adaptability to new information during the notice-and-comment period).
129 See, e.g., Balla, supra note 62; West, supra note 62; Furlong and Kerwin, supra note 62.
130 All the empirical studies to date focus exclusively on the notice and comment process as the touchstone for interest group engagement. See supra notes 65-80. See also Anne Joseph O’Connell, Political Cycles of Rulemaking: An Empirical Portrait of the Modern Administrative State, 94 VIRGINIA L. REV. 889 (2008).
131 Coglianese, supra note 66, at 153.
and basically kind of renegotiate the regs.”

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 who get to play.” These negotiations also “hold an added degree of secrecy given their privileged status” and can help “immunize agency officials from oversight by third parties such as the Office of Management and Budget.”

In most cases, there is a surprising amount of negotiating room during the post-rule stage. Although any changes to the rule’s text must go through a new notice-and-comment period, other changes, including official interpretations, policy guidances, and enforcement priorities, escape this fate. As Professor Schmidt found in his case study, these interpretive guidances can be sufficiently meaningful to lead a litigant to voluntarily dismiss its case.

This study gathers evidence of continued interest group activity and influence during the post-final rule process from several datasets. First, evidence was collected on whether and the extent to which rules are being revised after publication of the final rule. On this score, the data reveal a relatively high rate of revisions – with about 70% of all of the HAPs rules being revised at least once. See Table 6. More specifically and excluding the thirty percent of rules with no revisions, HAPs rules, on average, underwent about four revisions apiece since their promulgation in the 1990’s or 2000’s, which is about one revision every other year, on average. Most of these revisions do not involve notice and comment and about 10% of the revisions are entitled “stay”, “exemption” or “exception” which appear – by their title – to favor industry.


132 Id. at 127.
133 Id. at 131.
134 Id. at 154.
135 Id. at 190.
136 See, e.g., Richard Stoll, Coping with the RCRA Hazardous Waste System: A Few Practical Points for Fun and Profit, 1 ENVTL. HAZARDS 6 (July 1989), reprinted in PERCIVAL ET. AL, ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 257 (2d. ed. 1996) (describing how the EPA’s private letters, obscure guidance documents, and hidden statements in unrelated final rule preambles have given industry participants considerable room to ‘play’ in remaining compliant with hazardous waste rules).
137 See Schmidt, supra note 104, at 74 (highlighting the significance of interpretive guidance).
138 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 A. This data does not tell us whether the revisions were triggered by interest groups or initiated spontaneously by the agency, however. The data is 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 104, at 79 (discussing OSHA’s settlement with one party, which involved altering its enforcement guidance).
TABLE: 6. Number of revisions for those rules where the revisions were greater than 0 (N=69).

<table>
<thead>
<tr>
<th>Revision Type</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of revisions/rule</td>
<td>4.2</td>
<td>4.9</td>
<td>23</td>
</tr>
<tr>
<td>Major revision as formal rulemaking, with notice and comment</td>
<td>1.5</td>
<td>2.1</td>
<td>16</td>
</tr>
<tr>
<td>Technical amendment or clarification without notice and comment</td>
<td>2.3</td>
<td>2.9</td>
<td>12</td>
</tr>
<tr>
<td>Revision called a “stay, exemption, or extension”, usually occurring without notice and comment</td>
<td>0.41</td>
<td>1.2</td>
<td>6</td>
</tr>
<tr>
<td>Number of revisions/year</td>
<td>0.51</td>
<td>0.73</td>
<td>5.75</td>
</tr>
</tbody>
</table>

Information on whom or what triggers these revisions is much harder to determine. Drawing from multiple sources of information, it appears that industry engages more than public interest groups in this post-final rule activity, a finding consistent with industry’s greater legal leverage as a result of its domination during the notice and comment process. Specifically, within the larger set of HAPs rules, 22 rules (or 24% of our dataset) involved petitions for reconsideration or suits for judicial review. See Table 7. Industry filed only slightly more petitions for reconsideration than public interest groups, but industry was involved in all nine subsequent lawsuits of which the public interest groups joined only two. Given the newsworthy features of litigation in general, which would seem to be of greater benefit to public interest groups as compared with industry, the public interest group’s lower rate of litigation filings was unexpected. It also bears note that four of the industry petitions and lawsuits were filed challenging rules for which there was no public interest engagement during the notice and comment process.

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139 The 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 the petitions and judicial appeals noted in these two sources of data. Yet both databases are likely incomplete in ways are likely to lead to under-reporting, and perhaps significant under-reporting. 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 does not trigger published rule revisions (i.e., a nonmeritorious petition or a settlement that leads to changes in EPA’s guidance that doesn’t alter the rule itself), the changes seem unlikely to be noted in the unified agenda. Second, even when there are final decisions or rules that result from petitions or litigations and 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.

140 See infra Part IV.B.
Table 7: Petitions and Challenges filed by Interest Groups against HAP Rules

<table>
<thead>
<tr>
<th></th>
<th>Number of rules for which a petition/litigation was filed</th>
<th>Filed by industry</th>
<th>Filed by public interest groups</th>
<th>Filed jointly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petitions for Reconsideration</td>
<td>13</td>
<td>7</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Petitions that resulted in litigation</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Challenges seeking Judicial Review (and often settling)</td>
<td>9</td>
<td>9</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total filings post-final rule</td>
<td>22</td>
<td>18</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

The findings in this study are thus consistent with Prof. Coglianese’s observation of considerable 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 up with at least one petition seeking reconsideration or judicial review. About half of these cases settled, and most of those settlements involved only one set of interests, which were dominated by regulated industry. The other half (roughly 22%) proceeded to litigation. 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 Prof. Coglianese’s databases on post-final rule activity were more complete than our two sources of information on filing activity. See Appendix A. Particularly when combined with Prof. Coglianese’s study, our findings suggest that more attention needs to be directed at this potentially important period of interest group engagement, as well as at the pre-NPRM stage.

IV. ANALYSIS

Prof. 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.” Prof. Elliott, also a former EPA General Counsel, recounts how much of the 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.”

141 See Coglianese, supra note 66, at 48-50.
142 Id.
144 Id. at 1493.
The instant study underscores both the accuracy and the importance of Prof. Elliott’s remarks. While notice and comment may not exactly amount to window dressing, the results of this study, particularly when combined with others, reinforce the worry that a great deal of interest group representation and influence for at least some highly complex and technical rules that affect public health occurs outside of the glass box of notice and comment.

The results also suggest that once one looks at the entire lifecycle of rulemakings, at least in this set of highly complex and technical pollution control rules promulgated by EPA, one observes multiple opportunities for imbalance in interest group 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.145

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 the 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.146 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 EPA’s promulgation of HAPs rules, only 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 our initial hypotheses since they 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 data147 reveal that 73% of the HAPs rules (66 rules) in our study were promulgated under court order resulting from deadline suits filed in the U.S. Court of Appeals. (In the Clean Air Act, Congress set a strict timetable for when EPA was required to complete various groups of HAPs standards; deadline suits consist of litigation, almost always filed by environmental groups, that seek to hold EPA to this statutory schedule).148 Although references to judicially enforced deadlines do not reference public interest groups as the litigant, we expect, based on other commentary

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145 See supra note 56 and accompanying text.
146 See supra Part I.
147 See Appendix A.
and observations, that these cases are brought predominantly and likely exclusively by public interest groups.149

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.150 Therefore, the promulgation of any standards reducing toxic pollutants is 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 the 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 are whether there was a statutory deadline for a rule and whether the agency missed that deadline.151 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 also provides a broader view of interest group activity through the rulemaking life cycle. See Figure 4. Disaggregating the rulemaking process into four distinct stages also partly rehabilitates those political scientists and legal academics who contend that pluralism is alive and well.152 At the same time, however, by breaking down the opportunities for interest group engagement into the distinct stages, Figure 4 reveals just how limited public interest group engagement is in shaping the substance of the rule, at least in the HAPs rulemakings.

149 We will verify this in the course of completing this study. See also Coglianese, supra note 66 (discussing how deadline suits tend to be brought by public interest groups).
152 See supra notes 2-7 and accompanying text.
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), then involvement by public interest groups could actually lead to a somewhat perverse effect on the stringency of the resultant standards. Given that the standard-setting is highly complex and technical, the fact that it also must also be done in a relatively short (i.e., 1-2 years) time frame, often without vigorous adversarial presence by public representatives, may mean that the agency is even more dependant on regulated parties for information to get the rule promulgated on time. Indeed, most of the litigation pressure at the back end of this potentially rushed rulemaking is likely to come from these same regulated parties who are most intimately involved in all aspects of the rule. 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 more amenable to vigorous public interest oversight.

B. Public Interest Groups, Rational Choice, and the News

Although the involvement of public interest groups through deadline suits help defray some of the counterintuitive features of the findings, there remains a nagging

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concern about the public interest groups’ marked absence in the substantive development of most HAP rules. This inactivity may be rational, however, given the cost and benefits to public interest groups of participating in this particular area of regulation. As discussed, the costs of public interest group participation are quite high given the size and technicality of the rules. Indeed, extensive pre-NPRM industry contacts likely make the rules even more technical and complicated than they would be without this early engagement. As a result, the costs that a public interest group must incur to file intelligent comments at the notice and comment stage is likely substantial.

By contrast, the benefits to public interest groups for participating in the substance of the HAPs rules may be quite limited. In considering the possible payoffs, favorable news coverage seems to be the most obvious reward -- a reward that, conveniently, is also relatively easy to measure. In an exploratory part of the study, the major news sources were coded to determine news coverage for each of the individual HAPs rules. The results suggest that the news media may not provide a meaningful incentive for public interest groups to engage in the substance of the HAPs rulemakings.

Specifically, this exploratory study reveals that the media coverage of individual HAPs rules is quite limited. Only 12 individual rules from the HAPs dataset (N=90) were covered in the major newspapers, and there only 32 articles on these 12 individual rules over the nineteen years of regulatory activity. 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. The news coverage included general health threats posed by air toxins from large stationary sources, inadequate regulation of these sources at the federal level (in general), Congressional efforts to address or exempt stationary sources of HAPs, local regulatory battles or hot spots, and specific and newsworthy issues regulating air toxins, like mercury emissions from power plants.

From this preliminary study of news coverage, it appears that if there are benefits to participating in the substance of HAPs rulemakings for public interest groups, then the benefits will need to arise predominantly from rewards outside the mainstream media unless interest groups generate the newsworthy qualities themselves. Since the “salience” of rules is viewed as central to interest group priorities and projects, moreover, the low media coverage also indicates that public interest groups may face similar

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154 See supra Part I.
155 See Wagner, supra note 20, at Part III.A.3.
156 For a discussion of the methods used for this phase of the study, see Appendix A.
157 There is a chicken-egg problem here, however. One of the major forces in distilling the rules and making them newsworthy is the efforts of public interest groups. Thus, their limited engagement and the low news coverage may mean that the public interest groups don’t invest in these issues, not that there will be low rewards if they do engage in the rulemakings.
158 Our study covers only the HAPs rules in 40 CFR 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.
difficulties selling their costly involvement in the substantive development of individual HAPs rules to donors and members. From the vantage point of media coverage, deadline suits seem to be a far better investment since they are easier to explain and easier for reporters to cover.

C. The Role of the States

There are many questions that emerge from the study, but one of the most critical in assessing the vigor of pluralistic oversight is to better understand the role of the states in the HAPs rulemakings. Based on very limited review of the states’ comments in a portion of the rules, it appears that the states generally, but not always, take a public interest-oriented position on the HAPs rulemakings (i.e., arguing that the standards proposed by EPA are too lax). In a minority of cases, the state input instead raises concerns about the economic burdens on industry or about the governmental burdens resulting from the states’ enforcement of proposed HAPs standards. 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.

If states are generally taking the position of the public interest, then their engagement, which is substantially higher at all stages of the HAPs rulemakings as compared to public interest groups, see Figure 4, may help make up for the absence of public interest groups. Even then, however, further study is needed to understand under what circumstances the states will engage most vigorously in arguing on behalf of the public and what some of the constraints and limiting features of this engagement are (i.e., resources, political pressure). The absence of states as filing parties in the post-final rule activity governing HAPs may also indicate that their involvement comes with some significant strings attached. See Figure 4.

[Note to Law Review editors: We are currently collecting the comments filed by all states in all the rules in our dataset and coding these comment letters for the position taken by the state. This analysis will be completed and added to the paper by May 2010].

D. Implications: Does Imbalance Really Matter?

Read to the extreme, the findings could suggest that the “pluralistic sky is falling.” The prospect of consistent industry domination throughout the entire lifecycle of important, public health rulemakings raises the worrisome risk of procedural breakdowns that could lead to significant lapses in agency accountability.

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159 See, e.g., Constance A. Nathanson, Social Movements as Catalysts for Policy Change: The Case of Smoking and Guns, 24 J. HEALTH POL’Y & L. 421, 442 (1999) (discussing the importance of a “credible risk” to environmental and public health campaigns; without this risk, the effort is severely handicapped).

160 Indeed, at least some of the 32 articles on source-specific HAPs rules were reporting on these deadline suits and not on the setting of the standards themselves.

161 Rather, they count states as “states” without discussing what that means in the constellation of interest group pressures. See Coglianese, supra note 66; Yackee and Yackee, supra note 65.
Yet there are arguments that – at least in the case of HAPs – the lack of pluralistic oversight is neither unexpected nor consequential. Each of these arguments are considered in turn, and each are found wanting. This does not mean that imbalanced engagement is a serious problem; this final section simply concludes that the imbalance cannot be brushed away as insignificant or counteracted by other institutional protections.

A. Missionary-oriented Agency Staff Protect Against Industry Dominance

If the agency staff leans heavily in favor of the public interest, then the absence of public interest group participation throughout the rulemaking process, at least in theory, might not matter.162 In this view, agency staff would anticipate industry’s imbalanced engagement and develop rulemaking positions that attempt to ensure that the public health is adequately protected in spite of the dearth of public interest group representation. Thus, 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.

This is an important, but currently untested and possibly untestable hypothesis.163 Nevertheless, there are several reasons why it seems unlikely that agency staff regularly or reliably act in a fashion that anticipates and counteracts imbalance in interest group engagement in ways that ensure the final rule has been adequately buffered from continuous industry pressure. First, perverse incentives created by the courts require agencies to consider all comments and provide grounds for suit if a commenter believes an agency’s response is inadequate.164 If the agency wishes to produce a rule that survives judicial review, then comments and potential challenges dominated by industry may not only take the rule to the “mid-point” between industry and public interest preferences, but may compromise public health protection more substantially. The data from this study in fact reveal that as industry commenters increase, so do the changes in their favor: Rules that are subject to more extensive industry comments involve more changes that weaken the rules as compared with rules subject to less industry pressure. See Figure 3. Added extensive contacts during the pre-NPRM stage and after final promulgation of the rule are likely to continue the whittling process. Thus it seems somewhat fanciful to expect that the agency will have sufficient foresight and political will to anticipate and develop a proposed rule that adequately protect unrepresented groups, like the public interest, so that once the industry barrage is over, the resultant rule meets at least half-way between the public interest and industry concerns.

Second, in the public health arena, even if agency staff were uniformly missionary-oriented, they would face competing public health objectives that might cause them to favor compromising with industry on the substance of a rule in ways that tilt

162 See supra note 113.
163 While qualitative surveys may provide some help shed light on this hypothesis, and remain on our empirical agenda in continuing the project, the hope of quantitatively coding rules to determine their public interest stringency seems illusive, at least without the ability to identify some alternative benchmark against which to compare it.
164 See supra notes 102-108 and accompanying text.
against the public interest. One objective of a missionary-oriented staffer is to
promulgate the most stringent rule possible given the opposition. The other competing
objective is to promulgate some rule, even a slightly weaker rule, expeditiously without
getting tied up in court. In cases where litigation is threatened, these objectives could be
mutually exclusive. Quite obviously, moreover, this second objective could cause the
agency to be more inclined to satisfice and reduce the stringency of a rule in order to
promulgate a rule on time, rather than take risks that the rule will end up in litigation.
Thus, even for mission-oriented agency staff, there will be incentives to negotiate with
the most litigious parties, even if it means weakening a rule in a direction that initially
seemed neither justified nor desirable from the abstract ideological views of the staff.165

Finally and in any event, it is not clear that agency staff always or even usually
(under some administrations) act in such a missionary oriented way. Common sense
would predict that EPA staff has some diversity in ideological points of view, particularly
given changes in administration. In any event, if administrative theory now expects the
agency staff to put a thumb on the scales in favor of protecting the diffuse public, then
hiring policies should reflect and protect that function. Needless to say, such a model of
administrative law also presents a very different mechanism for ensuring agency
accountability than the process outlined in the law books.

Although they are only isolated illustrations, it is worth adding that some of the
HAPs rules do appear to have been compromised in ways that seem to unduly favor

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165 For example, Professors Owen and Braeutigam suggest in their “strategies for [established] firms and
[industries]” to game the APA:

The delay which can be purchased by litigation offers an opportunity to undertake other
measures to reduce or eliminate the costs of an eventual adverse decision. These
measures include strategic innovation, legislative proposals, and lobbying activity. If the
administrative process goes on long enough, it is even possible to ask for a new hearing
on the grounds that new and more accurate information may be available. The agency
usually cannot resist the effort to delay through exhaustion of process because this would
be grounds for reversal on appeal to the courts.

BRUCE M. OWEN & RONALD BRAEUTIGAM, THE REGULATION GAME: STRATEGIC USE OF THE
ADMINISTRATIVE PROCESS 4–5 (1978); see also Sidney A. Shapiro & Thomas O. McGarity, Not So
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)).

By contrast, environmental groups often see delay as a window during which health is not
sufficiently protected. See, e.g., HREBENAR, supra note 46, at 262 (observing that “[t]ime delays often
benefit the corporate interests while creating a disadvantage for consumer groups” and linking this not only
to regulatory consequences but to the costs of engaging in the process). Though the EPA’s standards may
be a disappointment, further delaying their implementation could be worse. See, e.g., Stewart, supra note 1,
at 1772 (“Increased procedural formalities [like judicial review] may work to the disadvantage of public
interest groups by exhausting their limited resources and providing organized interests a basis for delaying
agency enforcement actions.”); cf. MASHAW, supra note 106, at 174 (noting that the timing of review and
associated compliance costs affect a party’s stake in challenging a rule in court).
regulated parties. Consider, as an example, a rule promulgated in the mid-1990s regulating the emissions of toxic air pollutants from chemical storage tanks in tank farms at large petrochemical plants. In this rule, the emissions standards were unusually straightforward—for most tanks, the EPA required lids with tight seals to keep them from emitting significant quantities of toxic pollutants into the air. But this emissions standard did not resolve all critical regulatory issues; chief among them was how to make sure that these tanks would not leak if the seal became loose or worn. On this issue, the EPA could have required the industry to install continuous emissions monitors at the rim of the tanks that would trigger an alert if a worrisome level of toxins was detected at the edge or over the surface of a tank. Or the EPA could have required regular inspections of the tanks with a sniffer, much like what natural gas companies use to detect gas leaks. Instead, in the final rule, the EPA simply requires visual inspections by a company employee to ensure the seal is intact. With regard to the frequency of this self-monitoring, the EPA could have required weekly or even monthly examinations given the seemingly low expense of the visual self-inspection; instead, the EPA set the inspection interval at one year. Indeed, under the rule, if a leak is discovered in the course of this annual check-up, the company is given another forty-five days to correct the problem, as well as the opportunity to self-administer up to two additional, thirty-day extensions. And to complete the picture, records of the industry’s compliance with these self-inspection requirements are stored onsite and are not filed with the state or federal EPA.

Whether these resultant, seemingly lax requirements have actually led to elevated health risks is an open question, but the evidence does indicate high levels of air toxics in and surrounding tank farms and petrochemical facilities. More to the point, however, the participatory dynamics underlying the formulation of this particular rule lend reason to believe that it was not in fact the product of vigorous adversarial debate between the public interest groups and industry. The emissions standards for tanks was part of a larger proposed rule, which included three other subparts and was over 187 pages long. Just on the storage tank rule alone, the EPA met with industry groups at least three times before publishing the proposed rule, communicated with them through letters, and

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166 In subsequent work we hope to develop a more rigorous method for assessing the stringency of HAPs rules. At this point, however, we can offer only a few qualitative examples.
168 See id. § 63.119(a) (providing extremely detailed requirements that amount to requiring a seal and floating lid for most tanks).
169 See id. § 63.120(a)(1).
170 See id. § 63.120(a)(2).
171 See id. § 63.120(a)(4).
172 See id. § 63.123(c).
173 See, e.g., McGarity, supra note 83 (describing high levels of air toxins at petrochemical facilities with tank farms); see also In Harm’s Way, HOUSTON CHRON., Jan. 16, 2005, at A1 (reporting on a prize-winning investigative study of inexplicable high concentrations of air toxins in local communities, some of which may be in compliance with existing standards);
prepared at least fifteen background documents. After publication of the proposed rule, twenty-two industries and industry associations—nearly all of them household names—and a smattering of public interest advocates—more precisely, two public interest groups and four states or state regulatory associations—engaged first in formal notice and comment just on the storage tank portion of the rule and then presented their concerns at a public hearing. The EPA’s response to these and other significant comments in the larger, four-part final rule identifies more than one hundred issues in contention. Not surprisingly, moreover, this final rule and preamble gained still more girth—this time reaching 223 pages and over 195,000 words in the Federal Register. With a statutory deadline looming, the agency pushed the rulemaking through in three-and-a-half years from start to finish.

B. 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 rigorously engaged in the substance of the rule because they believe the operable statutory directions provide EPA with little discretion to make the standards more lenient. Congress did specify precise percentages of what constitutes “best technology.” Thus, the argument goes, there must be very little wiggle room in

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176 See id. Document Nos. IV-D-1 to -28, IV-F-1 to -12.
178 See id. at 14,401–24.
179 The period of three-and-a-half years is based on comparing the date of the first document listed in the docket index authored after 1990, which is the year the EPA’s mandate was passed by Congress, and the date of the first final rule. For the first document in the docket, dated August 10, 1990, see Hazardous Organic NESHAP Storage, Docket No. A-90-21, Document No. II-B-1, available at http://www.regulations.gov/search/Regs/home.html#documentDetail?R=09000064800c084a.
180 At least at face value, the statutory mandate leaves little discretion to regulators in determining what constitutes the best pollution control technology and thus would seem to leave little space for much interest group involvement. In the statute, Congress not only required EPA to set the HAPs standards based on best technologies under a tight deadline, but also provided very specific instructions about what it meant by “best available” pollution control technologies; “best available” means that the standards are “at least as stringent” 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(3)(A and B).

Compare the Clean Air Act approach discussed in the text with the Clean Water Act. In setting technology-based standards under the Clean Water Act, the 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 the 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) (2006).
this particular standard-setting task 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 70 pre-NPRM informal (voluntary) communications for each rule,\(^\textit{181}\) submit on average more than 25 comments for a standard,\(^\textit{182}\) or file petitions for review of dozens of these rules once promulgated.\(^\textit{183}\) 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 results from the study indicate that the vast majority of comments seek substantive changes to the stringency or scope of the standard (70%); only a minority of the comments raises issues regarding compliance deadlines or paperwork requirements (9%).\(^\textit{184}\) In any event, if the 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: These statutory constraints do not matter in practice if nobody is able to enforce them.\(^\textit{185}\)

**C. 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 shared ideological commitment from within the agency but from public-benefiting pressure exerted on the agency from without – through the Executive Branch or even through Congress.\(^\textit{186}\) In this political economy view, in fact, the agency seems merely an agent of the political branches, carrying out their will as a result of closed door negotiations and related forms of pressure.\(^\textit{187}\) Much like the model for civic-minded staff within the agency, this political ballast – occurring through the White House or Congress – would in theory push back against industry domination and keep these rules on a level playing field. While most would prefer that this political counter-pressure takes place “in the light” rather than outside public oversight as is currently the case,\(^\textit{188}\) the fact that it occurs at all may be chalked up as a victory.

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\(^{181}\)\textit{See Table 5.}

\(^{182}\)\textit{See Table 1.}

\(^{183}\)\textit{See Table 6.}

\(^{184}\)\textit{See Table 2.}

\(^{185}\)In theory, some of the “greener” sources of HAPs could challenge the rule in an effort to impose more stringent requirements on their competitors; we are not aware of any lawsuits in the HAPs or many other areas of environmental law when this occurred, however.


\(^{187}\)\textit{See, e.g.}, Katzen, \textit{supra} note 113, at 1502–03 (2007) (conceding the lack of transparency but arguing that the results of White House involvement provided greater political accountability, a point discussed later).

Before considering the lack of evidence for these political forces, consider first how the information capture hypothesis already predicts against political intervention in most complex, technical rules. Specifically, if rules are extremely complex, detailed and technical, it will be difficult as well as costly for political actors to appreciate and understand them.\textsuperscript{189} The primary motivator, in fact, is likely to again come from regulated entities with great resources and know-how and not from the public interest groups. To the extent that such political actors are motivated by news coverage and other forms of public credit for their interventions, moreover, the likelihood of some type of probing seems low.

In terms of specific evidence of politically-based counter-pressure, the likelihood of congressional intervention seems the most improbable, both in theory and based on the existing data. EPA does record congressional letters and contacts in the rulemaking dockets. Yet for all 90 rules combined, the number of congressional interventions numbered less than twenty, with an average of about one contact for the 20 rules when a member of Congress did send a letter. Beyond these formal written communications, moreover, there is no evidence of congressional involvement. There is no indication, for example, that Congress held hearings on any of EPA’s air toxic standards, either while they were being set or after the fact. While none of this evidence is conclusive, it is highly suggestive that Congress did not play a meaningful role in any aspect of the HAPs standard-setting process.

The White House, primarily through the Office of Management and Budget (OMB), would seem to be more directly implicated in politically influencing these rules, particularly since at least forty percent of the rules were cleared through OMB.\textsuperscript{190} See Table 1. In terms of the extent of changes weakening (or strengthening) the rule during notice and comment, however, there were no statistically significant differences between significant and nonsignificant rules and no apparent trend in interest group influence regardless of statistical significance. Thus if OMB is involved in the significant rules, it is not involved in ways that lead to visible differences in strengthening or weakening them.

The general literature on OMB reinforces a sense that OMB is not likely to be coming to the rescue of the diffuse public. Rather than take the side of environmental groups, existing evidence of OMB activity reveals that OMB far more often sides with industry on EPA rules. 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. More recent studies of OMB in particular confirm its general, anti-environmental bent. Thus, if information capture tends to lead to a skew towards business, existing studies provide no basis for thinking that White House and OMB review helps protect against it.

V. 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 counter-pressure from the public interest. Additional empirical research will be critical to determining whether this imbalance is due to the high level of complexity and technicality of the rules, a condition that is actually caused or at least exacerbated by existing rules of process. Yet, at least at this juncture, the results provide some indication that the “interest group representation model” may not be working in precisely those settings where it has long presumed to be operating effectively.

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 (OSHA), the Food and Drug Administration (FDA), and the Consumer Product Safety Commission (CPSC). Certainly, the additional opportunities for 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 rulemakings in 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,

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191 See, e.g., Bagley and Revesz, supra note 55, at 1261-62. Former OMB appointees openly concede that they regarded balancing out the “laser”-like focus of the environment-minded EPA as one of their more important roles. See, e.g., Katzen, supra note 113, at 1505 (observing how EPA focuses like a laser on protecting the environment and OIRA takes “a broader view and consider[s] how, for example, an environmental proposal will affect energy resources, tax revenues, health policy, etc.”).

192 In their study of top EPA officials’ view of OIRA during the Bush I and Clinton administrations, Professors Bressman and Vandenbergh report that the strong majority (70 percent) 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 and Vandenbergh, supra note 188, at 87. Prof. Croley made similar, although not quite as strong observations about OIRA’s tilt during the White House review process: 56 percent of the meetings OIRA conducted to discuss rulemakings were exclusively with industry as compared with 10 percent that were held exclusively with public interest groups. See Steven P. Croley, White House Review of Agency Rulemaking: An Empirical Investigation, 70 U. Chi. L. Rev. 821, 865-66, 858 (2003). Finally, in a GAO study, about 70 percent of the rules that OIRA “significantly affected” and for which comments were available involved reinforcing the views of industry. U.S. Gen. Accounting Office, Rulemaking: OMB’s Role in Reviews of Agencies’ Draft Rules and the Transparency of Those Reviews 11 (2003).

193 Ultimately, even modest reforms, like requiring agencies to log in pre-NPRM and post-final rule contacts with interest groups might help redress some of the un-policed opportunities for lopsided interest group influence without imposing heavy costs on the agency. A number of other reforms are also ultimately possible, such as re-calibrating 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 20, at part V.
since this incentive stems from administrative law and not from statutory directions that are unique to the EPA.\textsuperscript{194} Because imbalanced participation appears to not only be a recurring phenomenon in the limited empirical literature bearing on the subject,\textsuperscript{195} but is explained by relatively simple rational choice models for both regulated industry and public interest groups,\textsuperscript{196} it would in fact be surprising if most complex, lengthy rulemakings across 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 is more likely to be the exception rather than the rule.

Another area in need of empirical work is whether forces like information capture might explain the imbalance in interest group participation. Research that compares simpler rules against more complex rules that are held constant for their public significance, for example, may help identify whether highly technical and complex rules do suffer from imbalanced participation relative to other rulemaking areas. If they do, even simple reforms like mandatory technical advisory groups may buffer against industry domination.

Beyond the substantive findings, the study underscores some of the challenges (and hopefully some of the benefits) that lie ahead for the empirical study of rulemakings. Methodological challenges to getting inside the black box of rulemakings are many. Making matters worse, there are multiple variables operating on the agency and on the participants that impede the ability of empirical researchers to reach clean conclusions and identify statistically significant correlations. While the Yackee and Yackee\textsuperscript{197} methodological innovations are critically important to advancing the empirical study of rulemakings, the content analysis methods requires significant adaptation for rules that are complex and multi-faceted. In short, empirical analysts working in administrative law have their work cut out for them. Yet hopefully the findings generated by this study, as well as by the handful of other studies that preceded it, reveal the valuable insights that can be gained by attempting to look inside the black box.

\textsuperscript{194} See supra notes 116.
\textsuperscript{195} See supra Part II.A.
\textsuperscript{196} See supra notes 48-49 and accompanying text.
\textsuperscript{197} See Yackee and Yackee, supra note 65.
APPENDIX A

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

Docket Indices and Final Rule Preambles

Once the HAPs rules were selected, the first order of business was to identify the actual rules under study, 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. Yet this still left the identification of the individual rulemakings. EPA has promulgated 128 final HAPs rules in 40 CFR Part 63, but several rules had to be merged because EPA created them in the same rulemaking process. Other rules had to be excluded for other reasons: Five of the rules are administrative and therefore not included in our study; one of the rules was a negotiated rulemaking and thus fell outside the hypotheses; and several of the rules could not be included due to difficulties getting their dockets. Our study thus examines all of the HAPs rules promulgated at 40 CFR Part 63, with the noted exceptions (N=90).

Because of the difficulty and time involved in obtaining archived records from EPA, the data was drawn from two, publicly accessible documents available for each HAPs rule—the rulemaking docket index 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 one-hundred pages of entries of

198 We also excluded four sets of HAPs rules promulgated at other parts of 40 CFR, 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 five 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).
199 22 subparts were combined into 6 units because they were created by the same final rule and their creation is documented by one docket (AA, BB -- 64 FR 31358, A-94-02; DD, OO, PP, QQ, RR, VV -- 61 FR3 4140, A-92 16; HH, HHHH -- 64 FR 32610, A-94-04; BBBBBB, CCCCCC -- 73 FR 1916, OAR-2006-0406; DDDDDD, EEEEEE, FFFFFF, GGGGGG -- 73 FR 2930, OAR-2006-0510; LLLLLL, MMMMMM, NNNNNN, OOOOOO, PPPPPP, QQQQQQ -- 73 FR 38864, OAR-2006-0897). 9 subparts were combined into 3 units because they were created by the same final rule, however their creation is documented in several dockets: F, G, H, I -- 59 FR 19402, A-89-10, A-90-19, A-90-20, A-90-21, A-90-22, and A-90-23; JJJJJ, KKKKK -- 68 FR 26690, OAR-2002-0054 and OAR-2002-0055; RRRRR, SSSSS, TTTTTT -- 72FR73180, OAR-2006-0424, OAR-2006-0360, and OAR-2006-0940 (these dockets were combined).
200 These subparts are S, SS, UU, WW, YY, XX, EEE, FFFF, HHHHH, SSSSS, and TTTTTT. Several of these were created with the same rulemaking process. If we could have gotten the docket information for these subparts it would have resulted in another 6 units for analysis.
201 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 through regulations.gov.
information, meetings, telephone calls, and comments that are logged in throughout the life cycle of a rulemaking. In particular, the agency docket contains all communications during the notice and comment period. While all information received pre- or post-notice and comment that affects the agency need not be logged in (an issue discussed in more detail below), these 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, 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 inter-governmental communications. This identification of participant affiliation was relatively straightforward for most entities and tracked the categories used by Yackee & Yackee and Coglianese: EPA contractor; industry, industry association, public interest group, state regulator, governmental entity acting as a regulated party (i.e., DOD or sewer district), unaffiliated party, and other. When coders were not able to determine the affiliation of a participant, they would conduct a Google search; if that failed, they would consult Wagner; and if she could not determine the affiliation, the party would be classified as other.

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 Yackee and Yackee. 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.

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 not simply determine whether the rule was changed in ways that favored industry or not, following the methods of Yackee & Yackee; there were too many requests for change. Instead

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202 See Coglianese, supra note 66; Yackee and Yackee, supra note 65.
203 See, e.g., Yackee and Yackee, supra note 65.
204 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 the EPA does a relatively good job culling out the major comments in an honest and straightforward way.
205 See, e.g., Yackee and Yackee, supra note 65.
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. 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. See Table 3 below. When coders were not able to easily code a request for change following the categories in the coding sheet, the protocol involved 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 ? if the issue could not be resolved.

**TABLE 3: Categories for Rule Changes in “Rule” Coding Sheet**

<table>
<thead>
<tr>
<th>Response/Change</th>
<th>Decline weaken</th>
<th>Decline strengthen</th>
<th>Agree to weaken</th>
<th>Agree to strengthen</th>
<th>?</th>
</tr>
</thead>
</table>

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.\(^{206}\) The coding data were entered into Excel initially and then converted to Stat 10.1 format for ease of analysis.\(^{207}\) 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. Using simple statistical correlations, the strength of the relationship between industry dominance during the comment period and significant favorable changes favoring industry is tested in the final rule.

Intercoder reliability on both rules and dockets was also evaluated near the end of the study. Fifteen percent of the rules and eight percent of the dockets (reliability testing on dockets will be concluded by May 2010) 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 twenty percent 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 “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 adversely affected regulated industry -- the reliability scores were lower and must be qualified, sometimes heavily. In this paper, we generally use only data that had strong reliability scores, above 0.75% reliability, and 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 changes requested; a difference

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\(^{206}\) All of the coders selected to code rules were second year law students, third year law students, or LLM students. Virtually all also had had taken coursework in environmental or administrative law or both.

\(^{207}\) The statistical analysis was performed using Stata 10.1
between 1 and 2 changes is larger, in percentage terms, than a difference between 200 and 201 requests for changes.

**Unified Agenda Database and EPA’s HAPs 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 database, [http://www.reginfo.gov/public/do/eAgendaAdvancedSearch](http://www.reginfo.gov/public/do/eAgendaAdvancedSearch), provided data for post 1995 unified agendas and Westlaw searches provided data for the earlier (1990 to 1995) unified agendas. The hits were screened and NESHAPs rules (which are the HAPs rules) were pulled out, excluding the few that were not promulgated in 40 CFR 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 RIN 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 part(ies) either through the unified agenda, or when that was not possible, by tracking back to the final rule that resulted from the petition and locating the filing party in EPA’s perambulatory discussion. We were not able to identify the identities of the filing parties for deadline suits and will confirm those by May 2010.

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 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 that 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 rules, available at [http://www.epa.gov/ttn/atw/mactfnlalph.html](http://www.epa.gov/ttn/atw/mactfnlalph.html), 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 HAP rules after they are promulgated as final.

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208 In the OMB unified agenda data, we searched within “EPA Office of Air and Radiation” for either the word “reconsideration” or for a judicial deadline (one of the advanced search options).

209 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)”
News Data

As part of an exploratory part of the study, discussed in the analysis section, partial data on the media coverage of air toxic issues was also collected with particular focus on issues regarding the emission of air toxics from stationary sources. The “major news” data base in Lexis was searched for the entire period of regulation of hazardous air pollutants using broad search terms. 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 911 tragedy. 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 8 in circulation; top 100 in circulation; or not listed as a top 100 newspaper); and the date of the article. Because this data is being used in a more exploratory way, inter-coder reliability was not measured.

210 Our Lexis search was: “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)”.
211 We derived this list from a Wikipedia site. See http://en.wikipedia.org/wiki/List_of_newspapers_in_the_United_States_by_circulation.