It is generally believed that the judicial review of agency rulemakings helps protect the public interest against industry capture. Yet very little empirical research has been done to assess the accuracy of this conventional wisdom. This Study examines the entire set of air toxic emission regulations promulgated by the Environmental Protection Agency (EPA), with particular attention to those rules appealed to judgment in the court of appeals, and discovers significant disconnects between popular understanding of judicial review and rulemaking reality. Of these air toxic rules (N=90), the courts were summoned to review only a small fraction (8%), despite evidence that many air toxic rules may have problems, at least from the public interest perspective. Moreover, although virtually all of the litigation brought by public interest groups against the EPA’s air toxic rules was successful, the resulting victories have not yet had much impact in practice. For most of its vacated regulations, the EPA has either ignored or limited the courts’ opinions and has not repromulgated revised rules. Thus, while the tenor of the opinions seems to reaffirm the courts’ role as guardian of the public interest the actual impact of these opinions on agency practice may be less influential than one might expect. A concluding
section takes the analysis one step further and explores the possibility that the net effect of judicial review may actually be more perverse. The ability of the dominant parties (which in the case of the EPA’s air toxic rules are regulated industries) to threaten the agency with expensive and time-consuming litigation could provide these groups with legal leverage that, in the aggregate, serves to further undermine the agency’s ability to act on behalf of the public interest.
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INTRODUCTION

The judicial expansion of standing in the 1970s radically altered administrative process. A legal system available only to regulated industries seeking to protect their narrow interests against agency abuse was transformed into a process that allowed all affected parties, including public interest groups, to challenge agency rules in court. The risk that the agency could now be sued by all affected parties, rather than just by regulated interests, was expected to cause agencies to be both more solicitous of and more receptive to the views of all stakeholders. Equally beneficial, when an agency did ignore stakeholder input, the agency could be forced to explain its decision to the courts. This new, broader form of judicial review was expected to play a particularly important institutional check against capture by regulated parties.

Although there is vigorous debate about whether this pluralistic model—initially dubbed the “interest group representation model”—is the best one for administrative process, there seems to be tacit agreement among commentators that this model generally describes

1. See generally Richard B. Stewart, The Reformation of American Administrative Law, 88 HARV. L. REV. 1667, 1669-70 (1975). Professor Stewart calls this older model of judicial review the “traditional model,” in which only regulated parties are able to seek judicial review of agency actions to protect their economic interests. Id. (“The traditional model ... has sought to reconcile the competing claims of governmental authority and private autonomy by prohibiting official intrusions on private liberty or property unless authorized by legislative directives.”).

2. See id. at 1723 (“The transformation of the traditional model into a model of interest representation has in large degree been achieved through an expansion of the class of interests entitled to seek judicial review of agency action.”).


5. See, e.g., Merrill, supra note 3, at 1043.

what occurs on the ground.\footnote{See, e.g., \textit{Martin Shapiro, Who Guards the Guardians? Judicial Control of Administration} 45-54 (1988) (describing the pluralistic and post-pluralistic models of judicial review, both of which depend on a constellation of diverse interest groups to engage with and ultimately sue the agencies); Elizabeth Magill, \textit{Images of Representation}, \textit{Issues Legal Scholarship}, Mar. 2005, at 1, 2, http://www.bepress.com/ils/iss6/art5/ (“To say that representation of those affected by governance is a theme running through many schools of thought is not to say that we have a neatly worked out theory of interest representation. Far from it.”); Daniel B. Rodriguez, \textit{Of Gift Horses and Great Expectations: Remands Without Vacatur in Administrative Law}, 36 \textit{Ariz. St. L.J.} 599, 609 (2004) (“Few believe that agencies are, in the terminology of Richard Stewart, writing a quarter century ago, mere ‘transmission belts’ for interest group influences”; instead, most view agency decision processes as involving some form of pluralistic microbargaining.). The earliest incarnation of the pluralistic model—the interest group representation model—morphed into subsequent variations that still relied on a diverse set of stakeholders to bring the claims, but these variations involved less judicial activism, particularly on the public interest side. See, e.g., Shapiro, \textit{supra} note 4, at 707, 714-15 (describing a counterreformation in the 1980s that remains tethered to a basic pluralistic model of oversight but differs on the level of judicial scrutiny).} Yet central features of the pluralistic model remain unsubstantiated as an empirical matter.\footnote{See infra Part III.} In order for the model to provide an even partly accurate description of rule-making processes, for example, a diverse set of interests must regularly engage with the agency in ways that can be backed by an appeal if the agency ignores those interests. When a court reviews an agency’s rule at the behest of stakeholders, moreover, the court’s opinion should have some impact on the agency’s future decision making. If these assumptions do not pan out in administrative reality, then the current model of administrative process may need some reexamination.

Growing evidence suggests, in fact, that administrative practice may be quite different from what conventional wisdomsupposes. Several different empirical studies that examined regulations over the last five years have identified a distinct “bias towards business” running through rules promulgated by several different regulatory agencies. This bias should not exist if pluralistic engines are running effectively.\footnote{See, e.g., Wendy Wagner et al., \textit{Rulemaking in the Shade: An Empirical Study of EPA’s Air Toxic Emission Standards}, 3 \textit{Admin. L. Rev.} 99, 125 (2011); Jason Webb Yackee & Susan Webb Yackee, \textit{A Bias Towards Business? Assessing Interest Group Influence on the U.S. Bureaucracy}, 68 J. Pol. 128, 128 (2006) (identifying a “bias towards business”).} One of the leading explanatory factors for this tilt in influence is the fact of judicial review itself. To the extent that each comment serves as a placeholder for litigation, influence cor-
responds to the number of forceful commenters: badly imbalanced stakeholder input into rules may lead to imbalanced outputs because of, not in spite of, judicial review. Additionally, evidence of agency nonacquiescence—an action by an agency that simply rejects or ignores adverse court precedent—calls into question whether the courts’ direct interventions really do change the agencies’ decision making. If agencies are not terribly worried about adverse court rulings, then this fact also alters how one understands the impact of judicial review on the rulemaking process.

Given this preliminary evidence that calls into question whether the pluralistic model accurately describes what is going on in practice, there is reason to want to learn more. This Study begins the effort by examining the agency-court-interest group interactions in an entire set of air toxic emission standards promulgated under the Clean Air Act by the Environmental Protection Agency (EPA). These standards affect public health directly, but data show that the rules receive far greater input from industry than from public interest groups. In such a skewed participatory regime, the courts’ role as guardian of the public interest becomes particularly important. In an effort to study judicial review’s capacity to protect the public interest, the Study examines the litigated air toxic rules and sets these rules against the interest group-agency interactions occurring in the larger set of ninety air toxic standards promulgated by the EPA.

The findings reveal that interactions between interest groups, agencies, and the courts do not always operate as expected. In a small number of rules, public interest appeals powerfully highlight ways that the agency violated basic statutory terms in its development of air toxic emission standards, just as the interest group representation model predicted. Surprisingly, however, the courts’ precedent and remands do not appear to exert much of an impact on agency decision making and in some cases seem to be effectively

10. See infra Part III.C.
11. See infra Part III.B.2.
13. See infra Appendix 2; see also Wagner et al., supra note 9, at 132 (discussing this finding in a related study).
14. See infra Part II.
15. See infra Part III.A.1.
The data also expose stark imbalances in interest group engagement across rules and, in turn, suggest that the courts are not always on hand to enforce the interests of all affected parties. The courts are not always on hand to enforce the interests of all affected parties. Although some of the EPA rules are subject to pluralistic bargaining that matches what seems to be imagined by the interest group representation model, the majority do not. Instead, the bulk of the rules are hammered out between regulated interests and agency officials with no input from other groups—a type of regulatory oversight that seems more akin to the defunct, traditional model than to its more modern replacement.

The possibility that judicial review inadvertently causes advantaged groups to enjoy even greater legal leverage in a large subset of rulemakings, while providing only limited oversight of agency decisions in a smaller subset of rules, is supported in four Parts. The first Part considers the basic literature surrounding judicial review and explores some of the basic empirical assumptions underlying the current pluralistic model of judicial review. The second Part provides an overview of the Study and explains the methods. The third Part discusses empirical findings from the research. Finally, the fourth Part considers what the findings suggest about conventional understandings of the impact of judicial review on agency rulemakings, particularly with respect to the courts’ role in advancing the public interest.

I. JUDICIAL REVIEW OF AGENCY RULEMAKINGS: THEORY AND PRACTICE

Judicial review is considered a critical institutional mechanism for holding agencies accountable to all affected parties, including the broader public. In its most idealized form, judicial review serves as an institutional check to ensure that agencies provide information to interested parties, take parties’ input seriously, and in the end, offer cogent and accessible explanations for their decisions, thus allowing the political process to engage in oversight of these
otherwise obscure bureaucratic decisions. Judicial review also ensures that the agencies stay within reasonable bounds in their interpretation of statutory directives; without the courts to police these statutory edges, lawlessness could result. Liberalized standing rules, coupled with relatively accessible and low-cost access to the courts for stakeholders, allow interest groups of all sizes and resource levels to challenge unfair rules and raise them for public scrutiny. This is particularly important for complex rules that otherwise might be badly skewed in favor of regulated parties. Cases such as Citizens to Preserve Overton Park, Inc. v. Volpe stand as a testament to the ability of local community organizations and citizen activists to hold Washington bureaucrats accountable when they ignore the law.

Despite the vital institutional role that courts play in the administrative state, there has been a dearth of investigation into what is actually occurring at the agency-court interface in practice.


21. See generally Sargentich, supra note 20, at 634 (“Active judicial review can help to deter the worst abuses of power and to give staff inside an agency levers with which to bargain in the development of policy that serves statutory aims.”); Cass R. Sunstein, Interest Groups in American Public Law, 38 STAN. L. REV. 29, 63 (1985) (touting the value of judicial review to combat capture-like problems that might otherwise afflict agencies).

22. See, e.g., Shapiro, supra note 7, at 51 (describing this pluralistic grounding of judicial review and also the hope that, rather than advancing only narrow interests, some groups will “push for the right rather than their own particular interests”); Stewart, supra note 1, at 1755 (“By affording all affected interests with a recognized stake in agency policy the right to demand and participate in such procedures ... [the courts] facilitate effective judicial review of asserted agency laxity or bias.”).


24. 401 U.S. 402, 410 (1971) (holding that citizen group had standing to challenge Department of Transportation’s failure to comply with statutory requirements governing disbursement of federal highway transportation funds to construct a highway through a park), abrogated by Califano v. Sanders, 430 U.S. 99 (1977).

Professor Jerry L. Mashaw warns that as a result of this gap between theory and empirical knowledge about the impact of judicial review, “[d]octrinal discussions ... [may ultimately] seem like cartoons when laid beside the occasional empirical investigation of agency operation.”

This Section lays out the promise of judicial review in theory and highlights some of the unanswered questions regarding its operation in practice.

A. Basics of Judicial Review

Although the scrutiny courts give to agency rules has ebbed and flowed over time, the underlying principle that the courts stand as a check on agency discretion has remained a constant theme over the last seven decades. The courts accomplish this oversight in large part by reviewing challenges to agency rulemakings and other actions. In most settings, virtually any affected party can challenge a problematic rule and ask the court to determine whether the rulemaking is arbitrary or otherwise out of line with the authorizing statute. In this way, the agency confronts limits to its discretion.
that are enforced by interested parties and adjudicated by disinterested generalist judges.

Initially, in the 1940s when the Administrative Procedure Act was first passed, the courts’ role was oriented primarily toward protecting the interests of regulated parties against arbitrary agency action (the traditional model), but with the rise of social regulation in the 1960s and 1970s, the courts’ role shifted to become much more focused on serving as a critical counterforce to agency capture. Apparently motivated by a sense that agencies would benefit from greater public interest-oriented oversight, the courts, acting on their own volition, liberalized standing rules to allow any aggrieved party to challenge arbitrary agency action. Expanded standing was followed soon after by the courts’ increasingly aggressive scrutiny of agency rules and analyses. Some courts even gave a “hard look” to agency rules to ensure that the agency had documented its fact-finding, explained its logic, and duly considered all contrary evidence. Growing indications of the special interest capture of agencies convinced some judges that too much deference to agency experts would systematically allow agencies to lean too far in the direction of regulated parties. These cumulative developments—both broader standing and a harder look at agency rules —led to the reformation of administrative law, transforming the courts’ role from the guarantor of narrow, due process protections, which were available only to regulated parties, to the full-scale

31. See supra notes 1-2 and accompanying text.
32. See supra notes 3-4 and accompanying text.
33. See, e.g., Stewart, supra note 1, at 1715-16 (spotlighting “the expansion of standing to seek judicial review of agency action” as one of the central elements in the transformation of the traditional model of administrative law with respect to agency rulemakings).
34. See, e.g., Indus. Union Dep’t, AFL-CIO v. Hodgson, 499 F.2d 467, 475 (D.C. Cir. 1974) (“What we are entitled to at all events is a careful identification by the Secretary, when his proposed standards are challenged, of the reasons why he chooses to follow one course rather than another.”).
35. For a critical assessment of the hard look doctrine, see 1 Richard J. Pierce, Jr., Administrative Law Treatise § 7.4, at 593-97 (5th ed. 2010).
institutional gatekeeper that holds agencies accountable to the public at large.\textsuperscript{37}

During this early reformation period, public interest groups seemed to emerge from the woodwork to defend the rights of the diffuse public against capture and other lapses in agency judgment.\textsuperscript{38} Indeed, the prevalence of these groups—although seemingly defying collective action theory—led analysts to celebrate the resulting “interest group representation” model and the pluralistic transformation of administrative law.\textsuperscript{39} Professor James Q. Wilson, for example, observes how the “EPA has had to deal with as many complaints and lawsuits from environmentalists as from industry, despite the economic and political advantages industry presumably enjoys.”\textsuperscript{40} In their study of interest group politics, Professors Burdett A. Loomis and Allan J. Cigler conclude that by the early 1980s, a “participation revolution” had arisen comprised of citizens and special interest groups seeking “collective material benefits” for the public at large.\textsuperscript{41} Professor Christopher J. Bosso observes in his study of pesticide politics that “[b]y the mid-1980s, ... we find a diversity in representation that, on the surface at least, gives pluralists some vindication.”\textsuperscript{42} The possibility that at some point in the future, public interest groups might not be able to keep up with regulated parties seemed unlikely in light of the unexpected abundance of public watchdogs. Most of the concerns about the representative capacity of the public interest groups were instead preoccupied with the possibility that these public interest groups

\begin{itemize}
\item \textsuperscript{37} See, e.g., Stewart, supra note 1, at 1758 (“[T]he requirement that agencies give adequate consideration to all affected interests, and in particular, the interests of the intended beneficiaries of an administrative scheme, has been utilized by the courts with increasing frequency to redress perceived agency favoritism to organized interests.”).
\item \textsuperscript{38} See Burdett A. Loomis & Allan J. Cigler, The Changing Nature of Interest Group Politics, in INTEREST GROUP POLITICS 1, 10-11 (Allan J. Cigler & Burdett A. Loomis eds., 7th ed. 2007).
\item \textsuperscript{39} See Stewart, supra note 1, at 1760-61.
\item \textsuperscript{40} James Q. Wilson, The Politics of Regulation, in THE POLITICS OF REGULATION 357, 385 (James Q. Wilson ed., 1980).
\item \textsuperscript{41} Loomis & Cigler, supra note 38, at 11.
\item \textsuperscript{42} 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.
\end{itemize}
would advance goals that were not fully representative of or might even be in conflict with the diffuse public. There were also concerns that the resulting great waves of diverse pluralistic oversight might be too cumbersome and resource intensive for the agencies to manage.

The view of courts as the last bastions against agency capture subsided somewhat in the 1980s and beyond. After more than a decade of experience, there were concerns that the courts’ review actually produced unintended side effects that might cause aggressive review to become more of a problem than a solution. For example, some scholars worried that “hard look” review could paralyze an agency, which in turn would lead to substantial delays in regulation writing and a general ossification of the rulemaking process.

Some prominent commenters, including members of the judiciary, also became concerned that public interest challenges that purported to represent the broader interests of the diffuse public focused the agency on trivial risks at the expense of more important economic and environmental priorities. Both of these perspectives

43. See, e.g., Stewart, supra note 1, at 1764-70 (discussing problems that flow from the fact that “[p]ublic interest’ advocates ... do not represent—and do not claim to represent—the interests of the community as a whole”). Although Professor Stewart does highlight the likelihood that resources of these fragmented groups will not allow them to provide “adequate representation of all those interests significantly affected by agency decisions,” id. at 1764, he does not elaborate on how the complete absence of such representatives will lead to a model that is so different from the traditional model. His attention instead turns to the enormous discretion the groups enjoy with respect to prioritizing issues of interest to the general public. Id.

44. One of Stewart’s primary concerns with the interest group representation model was not whether it would be utilized by a diverse constituency as much as that it would be used by so many diverse interests that the development of uniform rules of decision by the courts would become effectively impossible. See, e.g., id. at 1778-79 (expressing concern about how court rulings might resist “regular ordering” and therefore lack coherent criteria for resolution).

45. See, e.g., Merrill, supra note 3, at 1041 (describing a “significant retrenchment” from the judicial activity that characterized the pre-1983 period to post-1983 activity that provided agencies with greater deference).


47. See, e.g., Stephen Breyer, Breaking the Vicious Circle: Toward Effective Risk Regulation 33, 50-51 (1993) (describing how public perceptions trigger a “vicious circle” of legislation and regulation of trivial risks that imposes unjustified costs on regulated parties); Timur Kuran & Cass R. Sunstein, Availability Cascades and Risk Regulation, 51 STAN. L.
counseled for more, not less, deference to agency decisions.\textsuperscript{48} Finally, a series of empirical studies revealed statistically significant correlations between court of appeals rulings and the ideological bent of the judicial panel.\textsuperscript{49} This potential partisan bias in the appellate courts’ review of agency rules also counseled for greater deference to agencies given the political qualities of much agency decision making.\textsuperscript{50}

Although the role of the courts in advancing the public interest has become less aggressive since the early 1970s, the image of courts as public guardians nevertheless persists.\textsuperscript{51} Much of the contemporary commentary on the role of the courts understands that courts serve as an important institutional counterforce to the powerful, heavily invested industries that pressure the agency throughout the rulemaking process.\textsuperscript{52} Whether the courts scrutinize the agency’s decision closely or at arm’s length, the objective of providing some check on agency power is a continuous theme.\textsuperscript{53}

B. Unreviewed Assumptions

Lurking behind this conceptualization of the courts as guardians of the public interest are basic, yet largely unexplored, questions about how agencies and courts actually behave.\textsuperscript{54}

\textsuperscript{48} See, e.g., McGarity, supra note 46, at 1451-54.


\textsuperscript{50} See, e.g., Cross, supra note 25, at 1269-76, 1301-13 (discussing evidence of ideological bias in appellate court decisions and discussing the implications for judicial review); Earl M. Maltz, The Supreme Court and the Quality of Political Dialogue, 5 CONST. COMMENT. 375, 387 (1988) (noting how the dialogic justification for the courts depends on the neutrality of the judiciary).

\textsuperscript{51} See, e.g., Sargentich, supra note 20, at 642 (“[T]he courts are the major national institutions designed to uphold law-governed limits on agency discretion, to protect individual rights, and to review executive power in the name of checks and balances.”); see also supra note 7.

\textsuperscript{52} See, e.g., Merrill, supra note 3, at 1043; Sargentich, supra note 20, at 641.

\textsuperscript{53} See, e.g., Sargentich, supra note 20, at 642 (arguing that benefits of judicial review outweigh the costs). But see Cross, supra note 25, at 1281-90 (identifying and criticizing this key assumption that courts are an essential mechanism for checking agency action).

\textsuperscript{54} See, e.g., Jerry L. Mashaw, Agency-Centered or Court-Centered Administrative Law?
For example, the pluralistic or interest group representation model, by its terms, depends on a sufficient number of public interest groups to at least threaten, if not use, liberalized standing rules to check agency abuses of discretion. In Professor Stewart’s words, “the transformation of the traditional model into a model of interest representation has in large degree been achieved through an expansion of the class of interests entitled to seek judicial review of agency action.” But if these groups are wholly absent from the rulemaking process despite liberalized standing and the relevance of the rules to the broader public interest, it is difficult to understand how the resulting approach to administrative oversight will be much different from the traditional due-process model that preceded the reformation. In fact, growing evidence of imbalances in the use of the notice-and-comment process by affected interest groups for publicly important rules provides reason to be concerned that all affected groups may not have equal access to the courts.

Administrative law scholarship also offers several grounds for concern that the agencies may not always comply with judicially imposed directives. A sizable body of nonacquiescence literature, for example, suggests that agencies actually are quite bold about explicitly rejecting judicial precedent, even in intracircuit situations.

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*A Dialogue with Richard Pierce on Agency Statutory Interpretation, 59* ADMIN. L. REV. 889, 893 (2007) (“It seems to me not only odd, but perverse, that articles parsing the exquisite subtleties of *Chevron* or *Skidmore* deference fill our law reviews, while virtually nothing is said about the ways in which agencies should and do interpret the statutes in their charge.” (citation omitted)).

55. Stewart, *supra* note 1, at 1723.

56. The relevance of these rules to the broader public interest is discussed below. See infra notes 62-67 and accompanying text.

57. See, e.g., Yackee & Yackee, *supra* note 9, at 131, 133 (studying forty lower-salience rulemakings promulgated by four different federal agencies and finding that business interests submitted 57% of comments, whereas nonbusiness or nongovernmental organizations submitted 22% of comments, of which 6% came from public interest groups).

58. See generally HUME, supra note 25, at 36-37 (discussing the courts’ limited ability to oversee compliance with their remedies).

when court rules are otherwise controlling. More subtle forms of nonacquiescence that do not involve explicit rejections of adverse precedent, but instead involve agency interpretations that distinguish precedent in creative ways, seem even more likely to be used by an agency eager to protect its turf from judicial encroachment. And in some settings there is even evidence that agencies avoid informal rulemakings altogether to avoid the risk of a court challenge.

None of this is surprising since agencies face a number of other pressures and sources of influence beyond judicial review. Thus, although the courts undoubtedly impact agency choices, it is not


61. In their study of the Federal Energy Regulatory Commission’s (FERC) response to judicial commands during the 1980s, for example, Professors DeShazo and Freeman outline how FERC essentially behaved as if the adverse precedent that limited its discretion had never happened. See J.R. DeShazo & Jody Freeman, Public Agencies as Lobbyists, 105 COLUM. L. REV. 2217, 2247 (2005) (“One would think that such high profile lawsuits would have prompted FERC to modify its behavior, even if Congress and the executive branch had remained largely pro-power in their oversight. But FERC initially acted as if Scenic Hudson [the 1965 Second Circuit case] had never happened. And it continued to drag its feet throughout the ’70s as the adverse decisions mounted.”).


63. See infra Part III.B.2.

64. See Stewart, supra note 1, at 1758 (describing how courts have attempted to curb agency favoritism).
clear that the courts’ interpretations of an agency’s regulatory authority constrain agency decision making in all, or even the majority of rulemakings.65 Perhaps it is better to risk a remand or vacatur, for example, than to anger an influential constituent or to find oneself crosswise with the Chief Executive.66 Yet if the agencies do not generally treat court reprimands as hard constraints on their authority, then the benefits of judicial review will be greatly diminished.67

Even the toll that judicial review takes on the agency’s workload, particularly through the opportunity costs and drains from more important projects,68 remains only partly understood. The cumulative downsides that result, however, could well exceed the benefits of judicial review in advancing the public interest.

Although there are a number of interesting and useful empirical questions about the court-agency-interest group interface in the current pluralistic model of judicial review, this Study focuses on three questions in particular:

1. Does equal access to the courts exist in practice? The effectiveness of court oversight depends on a relatively rigorous use of the courts by a wide range of affected interests.69 If those most aggrieved by lapses in agency judgments are not engaging in the rulemaking or are not able to file appeals, then the benefits of judicial review are diminished and in some policy areas could become negative if courts are used primarily by the already-empowered groups, like regulated parties.70 This is in fact quite possible,
because many of the representatives of the diffuse public have limited resources and may not be able to engage in notice and comment, much less appeal the rules to the courts. 71 Whatever the case, the effectiveness of courts as overseers seems to depend on the ability of the full range of affected parties to use them.

2. How does the agency react to judicial decisions? Even if public interest groups are not engaged in all or even most rules, the court precedent that emerges from the appeals can constrain agency practice. 72 The effectiveness of the courts thus also assumes that the agencies will respond to judicial opinions. 73 If agencies are inclined to ignore court rulings, however, then the effectiveness of judicial review may be much more limited.

3. Does the ever-looming threat of judicial review also operate to undermine advancement of the public interest, however unintended? The literature on ossification, as well as the costs of judicial activism documented by Dr. Shep Melnick several decades ago, 74 attest to the possibility of some unintended side effects associated with judicial review that adversely affect the public interest. 75 Yet the extent to which these and other unintended effects of judicial review

article, he nevertheless identifies the importance of this representation in order to make the interest group model work. See supra notes 37-42 and accompanying text. For example, he notes, without elaboration, that in the interest group representation model, “the problem of administrative procedure is to provide representation for all affected interests.” Stewart, supra note 1, at 1759; see also id. at 1763-64 (“Broad participation rights do not, by any means, ensure that all relevant interests will be represented before the agencies.”). Stewart then suggests that public interest groups will generally be on hand to represent the diffuse public, however incompletely, in many rulemaking settings. Id. at 1763, 1767-68 (rejecting the need for subsidizing public interest groups, presumably because such subsidies are not needed to ensure their engagement in most settings).


73. See, e.g., id. at 547-48 (drawing a cautious but optimistic portrait, based on the larger psychological literature, of how agencies are likely to respond rationally and favorably to judicial review commands).


75. See, e.g., McGarity, supra note 46, at 1419-20, 1426 (arguing that the costs associated with judicial review will cause agency decision makers to “be reluctant to undertake new rulemaking initiatives, to experiment with more flexible regulatory techniques, and to revisit old rulemaking efforts”).
actually undermine the courts’ ability to advance the public interest is poorly understood.76 This type of grounded inquiry of the downsides of judicial review would seem to be a critical component in evaluating competing doctrinal approaches and measuring the value of judicial review itself.77

Basic models of institutional design remind us that unexamined assumptions can sometimes cause an overarching, institutional goal—like ensuring pluralistic oversight of agency discretion—to move backward rather than forward if the facts diverge from what is assumed.78 For example, if it turns out that judicial review is not used by public interest groups in many public-benefitting areas, then instead of advancing the public interest, judicial review may be hijacked by regulated industry and used as a brickbat to keep the agencies in line. Ultimately, doctrinal tests might need to be recalibrated to correct imbalances by, for example, altering agency or interest group incentives to participate or to appeal problematic rules.79 Whatever the case, an empirically grounded understanding of agency-court-interest group interactions provides information that is useful in evaluating the design of administrative process.


77. See generally Cross, supra note 25, at 1244-47 (making this point before rejecting individual justifications for judicial review of agency rules).

78. The theory of second best, for example, warns that imperfections in the real world that are not accounted for in efforts to move a system towards greater economic efficiency could actually cause reform efforts to have the opposite impact on efficiency. For an overview of the theory, see Richard S. Markovits, Truth or Economics: On the Definition, Prediction, and Relevance of Economic Efficiency 76-77 (2008). There are likely many critical, fact-based assumptions embedded in the interest group representation model of judicial review, as well as other models, such as the traditional model. The fact-based questions explored in this Study are likely to be the tip of the iceberg in this respect.

II. THE STUDY

This Study examines the agency-court-interest group interaction occurring in the EPA’s air toxic emissions rules, a set of regulations that presents a good case for exposing constructive relationships between these three sets of actors. With respect to interest group participation, these rules regulate air toxic emissions from major industrial facilities and thus have significant consequences for public health.80 So, in the abstract, they would seem likely to generate considerable interest from the public interest and grassroots communities.81 On the agency side, the EPA purports to be generally responsive to court rulings82 and is generally viewed as biased in favor of the public interest, at least in comparison to other agencies.83 These qualities again would seem to make the EPA’s rules more sensitive to the demands of the public interest groups and responsive to court rulings that favor public interest groups. Finally, on the court side, Congress vests challenges to the air toxic rules exclusively with the Court of Appeals for the District of Columbia,84 which is widely considered the premier circuit for the review of complex agency rules.85 Together, these characteristics of the air


81. See infra Figure 5 and accompanying text.

82. See, e.g., Hum, supra note 25, at 96 (interviewing an EPA official who reported that “[i]t is very rare that EPA would nonacquiesce”); Estreicher & Revesz, supra note 59, at 717 (describing the EPA’s policy to accept adverse decisions in individual circuits and to refrain from relitigating them).

83. See, e.g., 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 the Office of Information and Regulatory Affairs takes “a broader view and consider[s] how, for example, an environmental proposal will affect energy resources, tax revenues, health policy, etc.”).

84. See 42 U.S.C. § 7607(b) (2006) (making the D.C. Circuit the exclusive court with jurisdiction to entertain challenges to the EPA’s air toxic rules, along with many other types of challenges).

85. See, e.g., Hum, supra note 25, at 47 (discussing these virtues of the D.C. Circuit); Peter H. Schuck & E. Donald Elliott, To the Chevron Station: An Empirical Study of Federal Administrative Law, 1990 Duke L.J. 984, 1004, 1041, 1070 (offering this hypothesis and
toxic rules provides a good basis for testing the hypothesis that the courts are critical to ensuring agency accountability, particularly with regard to advancing the public interest in important and complex agency rules.

The air toxic emissions rules also provide a valuable set of rules for study because the rules were promulgated by two different presidential administrations—those of President Bill Clinton and President George W. Bush. Although most of the litigation of the EPA’s hazardous air pollutant (HAP) rules occurred during the Bush administration, the majority of the air toxic rules appealed to the courts were developed in principle by the EPA during the Clinton administration. The data thus provide an opportunity for comparing EPA interactions with the courts under different presidential administrations.

Although the air toxic emission standards potentially present a best case for studying productive relations between agencies and courts with regard to advancing the public interest, the HAPs rules are also relatively typical examples of pollution control standards and thus should extrapolate well to other rulemaking settings. Like many of the EPA’s pollution control standards, the air toxic standards are mandated by statute and require the EPA to base

finding it to be true in their study of government-wide rulemakings during the 1980s).

86. See infra Appendix 1.
87. The crossover rules were developed as proposed rules and subjected to notice and comment under President Clinton but were finalized under President Bush. See infra Appendix 1. The features that triggered litigation were present in the original rule proposals and thus are attributable primarily to the Clinton EPA. See, e.g., Mossville Envtl. Action Now v. EPA, 370 F.3d 1232, 1234-35 (D.C. Cir. 2004) (noting that the final rule questioned in the action was promulgated in 2002); Arteva Specialties S.A.R.L. v. EPA, 323 F.3d 1088, 1089-91 (D.C. Cir. 2003) (describing the EPA’s 1996 rule, the petitioners’ requests for review and reconsideration, the EPA’s 2001 denial of reconsideration, and the petitioners’ subsequent request for review of this denial); National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production, 67 Fed. Reg. 45,886, 45,886 (July 10, 2002) (codified at 40 C.F.R. pt. 63) (“The NESHAP for this source category were proposed on December 8, 2000.”); see also Sierra Club v. EPA (Sierra Club I), 353 F.3d 976, 980-81 (D.C. Cir. 2004) (“In 1998, EPA announced proposed emission standards for primary copper smelter and initiated notice-and-comment procedures.”); National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting, 67 Fed. Reg. 40,478, 40,478 (July 12, 2002) (codified at 40 C.F.R. pt. 63) (“Today’s action constitutes final administrative action on the proposed NESHAP for primary copper smelting.”). It remains possible, however, that based on comments, the Clinton EPA might have withdrawn some of the litigated features at the final rule stage.
pollution control requirements on what it determines to be the best available methods for limiting industrial emissions.\textsuperscript{88} Specifically, section 112 of the Clean Air Act requires the EPA to identify currently available or soon-to-be-available pollution-control technologies for each major class and category of industry and to select the technology in each industrial category that best fulfills congressional goals for vigorous but affordable pollution reductions.\textsuperscript{89} 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.\textsuperscript{90} For example, one HAPs rule sets standards for air toxic emissions from boat manufacturing;\textsuperscript{91} another rule sets emission standards for cellulose product manufacturing;\textsuperscript{92} and another applies to coke ovens.\textsuperscript{93} Though the rules affect very different types of industries, they are comparable insofar as each typically follows the same analytical steps: defining the affected industry, setting standards for emissions limitations, and establishing monitoring requirements.\textsuperscript{94} The EPA’s promulgation of the rules is also constrained by statutory deadlines, and these deadlines are often backed by lawsuits.\textsuperscript{95}

\textsuperscript{88} See Sierra Club I, 353 F.3d at 979-81.

\textsuperscript{89} See 42 U.S.C. § 7412(d)(3) (requiring, for example, that emissions from existing plants meet at least “the average emission limitation achieved by the best performing 12 percent of the existing sources”).

\textsuperscript{90} See D. Bruce La Pierre, Technology-Forcing and Federal Environmental Protection Statutes, 62 IOWA L. REV. 771, 809-11 (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).


\textsuperscript{92} Id.

\textsuperscript{93} Id.

\textsuperscript{94} See, e.g., 40 C.F.R. § 63.5683 (2010) (describing the applicability of NESHAP rules that govern boat manufacturing); id. § 63.5698 (providing emission limits for open molding resin and gel coat operations in boat manufacturing); id. § 63.5725 (describing monitoring requirements).

\textsuperscript{95} See 42 U.S.C. § 7412(e) (2006) (setting deadlines for rule promulgation); Wagner et al., supra note 9, at 125 (describing how more than 70% of these deadlines have been reinforced by deadline suits that were subsequently settled with EPA).
This Study focuses specifically on the air toxic rules that were litigated to judgment and traces their life cycles from the initial development of the proposed standard, to the final rule, and ultimately to the fate of the rule after judicial review. Such a life cycle view of the rules provides insights into agency-court interactions at each critical stage of the administrative process. This Study also places the litigated rules within the larger set of rules from which they are drawn, which further illuminates important features of agency-court-interest group interactions that have been largely unexplored in the literature. For example, setting the litigated rules against the larger set of rules from which they are drawn provides a denominator for calculating the rate of litigation of agency rulemakings. This Study also examines the litigated rules with respect to their judicially identified defects and then compares them with the larger set to determine whether the air toxic standards that were reversed by the court are similar to the larger set that were not challenged.

To gain insight into the black box of agency rulemaking, this Study utilizes several different methods: quantitative methods, such as coding rules and dockets to construct a larger quantitative database; semi-quantitative methods, such as comparing court opinions; and qualitative methods, such as conducting case studies and interviewing stakeholders. Such an eclectic empirical approach offers the most promising means of gathering information about a process that has otherwise resisted empirical study.

96. See infra Part III.B.
97. Professors Schuck and Elliott conducted a comprehensive study that, among other things, traced the fate of rules after remand across all agencies. See Schuck & Elliott, supra note 85, at 1043-54. Except for their study and the reinforcing data provided by Hume, supra note 25, at 70-91, and Jordan, supra note 76, at 416-39, there has been very little commentary or empirical analysis of this important aspect of agency decision making. See also supra note 25 and accompanying text. How an agency responds to a court opinion tells, in theory, how effective courts are in guiding the agencies. Understanding whether agencies ultimately repair defective rules, as well as how they do so in light of the opinion, may provide useful information regarding the impact of judicial review.
98. See infra Part III.A.2.
99. See infra Part III.C.
100. See supra note 25 and accompanying text.
III. FINDINGS

This Part presents findings that correspond to the questions presented earlier. First and foremost, are the courts an important force in advancing the public interest? Second, when the courts intervene on behalf of the public interest, do the agencies respond and respect their orders? And, finally, are there other costs to judicial review that could ultimately impede the agency’s ability to advance the public interest?

As discussed in more detail below, the data reveal that the courts encounter several significant obstacles in protecting the public interest against industry capture. The first impediment is the simple fact that the courts were summoned to oversee only a small minority of the EPA’s HAPs rules, despite evidence that a larger number of these rules might be candidates for successful challenge by public interest groups. This limited role of the courts results in large part from the scarce resources available to public interest groups to participate, at least in comparison to their industry counterparts. Even when the courts were involved in judicial oversight of the HAPs rules, however, the courts’ remedial powers were surprisingly limited. In several cases, reversals and remands were effectively ignored by the EPA without consequence. Indeed, the repromulgation by the EPA of vacated regulations has been the exception rather than the rule.

At the same time that the findings highlight the limitations of the courts’ powers, the findings also underscore the value of this same judicial oversight role to catch significant agency violations. Most of the issues in the challenged HAPs rules were not factual disagreements, but rather allegations that the EPA violated the terms of its authorizing statute. The majority of these statutory challenges were successful. Significant defects thus appear to afflict EPA’s HAPs rules, at least for the rules challenged in court.

101. See infra Section III.A.2.
102. See infra note 126 and accompanying text.
103. See infra Section III.B.
104. See infra Section III.B.2.
Offsetting these limited but important benefits of judicial review are possible countervailing costs to the rulemaking process. First and foremost is the ability of stakeholders to leverage the threat of judicial review against the agency in exchange for changes earlier in the process. When confronted with the prospect of litigation, agency staff eager to see a rule to completion may make a number of concessions in the proposed and final rule in order to appease vigorous participants. The resultant cumulative changes may lead to a final rule that has been significantly altered in ways that disproportionately advantage industry, at least in settings like the HAPs rulemakings where the number of participants is skewed heavily in favor of industry relative to public interest groups.105

In the case of EPA’s HAPs rules, then, the net ability of the courts to advance the public interest is unclear. For every appeal of a HAPs rule filed by a public interest group, there are ten other HAPs rules that were not litigated, half of which were not even the subject of comments by public interest groups. These other rules could be similarly defective.106 Even more perversely, features that public interest groups found objectionable in final HAPs rules could have originated from the EPA’s effort to compromise with industry in earlier stages of the rulemaking specifically to stave off these industry stakeholders’ potentially more numerous challenges.

A. The Role of the Courts in Advancing the Public Interest

Two primary sources of data shed light on the extent to which the courts advance the public interest in the EPA’s air toxic rules: the court opinions themselves and the larger set of rules from which the litigated rules are drawn. Each is considered in turn.

1. The Court Opinions

Although only seven of the EPA’s HAPs rules were litigated to judgment, these cases, when read end-to-end, offer powerful evidence of how public interest groups are able to leverage the courts to correct agency lapses in air toxic emissions standards. Of the

105. See infra notes 232-46 and accompanying text.
106. See infra Section III.A.2.
seven cases, all but one was brought initially by an environmental group.\footnote{107} Even more notably, the environmentalists won all but one of their challenges in the court of appeals.\footnote{108} Despite its high loss rate in the courts, the EPA did not file a petition for certiorari in the Supreme Court in any of the cases.\footnote{109}

The fact that environmental groups used the courts more frequently than industry and generally succeeded in their appeals underscores how judicial review can serve as an important institutional mechanism for advancing the public interest. Relative to the few other measures of public interest litigation in the literature, in fact, the air toxic rules may well represent a high water mark in

\footnote{107. See infra Appendix 1.}
\footnote{108. See infra Appendix 1.}
\footnote{109. See infra Appendix 1. Professor Hume also finds a very low rate of petition filing across all agencies in his empirical study of agencies' responses to opinion writing. HUME, supra note 25, at 49-50. Thus, the EPA's willingness to allow the opinions to stand without further review is not surprising when set across these larger agency statistics.}
the public interest use\textsuperscript{110} and success\textsuperscript{111} of rule challenges in the courts.\textsuperscript{112}

\textsuperscript{110} Public interest group dominance of the appellate challenges to EPA rules may be unusual, or at least may be a more recent phenomenon. Industry seemed to dominate the challenges to the EPA's earliest technology-based standards promulgated under the Clean Water Act. \textit{See}, e.g., George Cameron Coggins & Thomas O. McGarity, \textit{Judicial Review of Technological Standards Under the Clean Water Act}, 75 AIChE SYMPOSIUM SERIES: WATER—1978, at 1, 9-10, 15-16 (1979) (detailing the industry's "blunderbuss" attacks on EPA's first technology-based standards promulgated under the Clean Water Act); Lettie McSpadden Wenner, \textit{The Reagan Era in Environmental Regulation, in Conflict Resolution and Public Policy} 41, 48 (Miriam K. Mills ed., 1990) (reporting based on an empirical study of appellate litigation from 1970 to 1985 that "[i]ndustry exceeded environmental groups' complaints against government actions at the appellate level as early as 1976, and this was reversed only once, in 1983, when industry's inputs fell off"). A number of commenters also predict and even assume that industry challenges to environmental rules will outnumber public interest challenges, if for no other reason than that delayed rule promulgation brings added benefits to industries who oppose pollution control standards. \textit{See}, e.g., BRUCE M. OWEN \& RONALD BRAEUTIGAM, \textit{The Regulation Game: Strategic Use of the Administrative Process} 4-5 (1978) ("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."); Sidney A. Shapiro & Thomas O. McGarity, \textit{Not So Paradoxical: The Rationale for Technology-Based Regulation}, 1991 DUKE L.J. 729, 737-38 (same).

\textsuperscript{111} The literature identifies the EPA's success rate, rather than that of individual sets of petitioners. These studies of judicial review of EPA rulemaking report a slightly better EPA success rate in the D.C. Circuit than found in this Study—33% to 41% as compared to 14% in the HAPs rules. Professor Adler found that the EPA won only 33% of its sixty-nine cases in the D.C. Circuit from 1993 to 2000, cases which primarily involved the challenge of a rulemaking; the remaining cases were either lost or mixed in their results. \textit{See} Jonathan H. Adler, \textit{No Intelligible Principles: The EPA's Record in Federal Court}, REASON FOUNDATION 10-11 (May 1, 2000), http://reason.org/files/3217ecd7bd37b4e6a814d4de95f5n26.pdf. Professors Schroeder and Glicksman found that the EPA's rules were sustained in only 53% of the 111 cases from 1991 to 1999. \textit{See} Christopher H. Schroeder & Robert L. Glicksman, Chevron, State Farm, and EPA in the Courts of Appeals During the 1990s, 31 ENVTL. L. REP. 10,371, 10,374 (2001) (reporting a 53% success rate for the EPA, which they note is consistent with other studies of all agency rulemaking appeals during a similar, albeit shorter, time period).

The limited empirical studies available also suggest that the EPA fares worse in the HAPs rules as compared with other agencies. In his study, Hume reports an affirmance rate by the court of appeals of 48.5%, in the year 2000, for all agencies aggregated together, but only a small portion, 7% of the remaining cases, involved reversals. \textit{See} HUME, supra note 25, at 19. Most of the rest were dismissals (27.3%) or "other" (17.2%). \textit{See id.} Hume states that "o[ver the past half century, the likelihood of an affirmance has been at least forty percentage points higher than the chance of reversal." \textit{Id.} By contrast, agency-wide, Schuck and Elliott found a 76.6% success rate for all agencies in rulemaking challenges in 1984 to 1985, a rate that increased from lower success rates in pre-Chervon periods, like 61% in 1975 and 55% in 1965, \textit{See} Schuck & Elliott, supra note 85, at 1007-08. Within their aggregated study, however, when they examined public health agencies that conducted only rulemakings, the affirmances dropped to about 40%, which is in line with the results found in this Study and the later studies discussed above. \textit{Id.} at 1021.

\textsuperscript{112} \textit{See infra Figure 1; see also infra Appendix 1 (providing supporting data).
It is not just the public interest groups’ dominance in using the courts to check agency discretion in these HAPs rules that stands out, but it is also the strength of their victories—both in numbers and in the language of the courts’ opinions. In their challenges to five of the rules—a sixth was remanded on other grounds—the environmental groups raised twenty-three different legal claims, and won on ten issues, or about 40%, of these challenges.\textsuperscript{113} Moreover, the bulk of the victories—eight issues—were challenges to the agency’s interpretation of the statute—\textit{Chevron} Step One—rather than details concerning the EPA’s fact-finding or explanation.\textsuperscript{114} This feature of their victories is important, as discussed later, because it imposes increased legal constraints on the agency’s

\begin{footnotesize}
\begin{itemize}
\item Italicized cases with * are industry interventions in public interest appeals.

\item *Numbers in parentheses (issues won:issues lost)

\item See infra Appendix 3; see also infra notes 174-78 and accompanying text. The court vacated one rule because it was legally connected to a defective hazardous waste rule, and thus this public interest group appeal drops out of much of the analysis presented in the remainder of Part III of this Article. See Natural Res. Def. Council v. EPA, 489 F.3d 1250, 1254 (D.C. Cir. 2007).

\item See infra Appendix 3; see also infra notes 174-78 and accompanying text.
\end{itemize}
\end{footnotesize}
entire rulemaking project.\textsuperscript{115} Industry, by contrast, raised only four issues in their three appeals, and two of the three appeals were interventions in suits initiated by the public interest groups.\textsuperscript{116} Industry prevailed on two of these four issues, and both issues were fact specific, \textit{Chevron} Step Two challenges.\textsuperscript{117}

Another telling aspect of the courts’ role in advancing the public interest with respect to the air toxic rules is the tenor of the courts’ opinions, particularly in the last two major cases decided in 2007. Both of the 2007 panels—each of which had two Republican appointees and one Democratic appointee\textsuperscript{118}—appeared not only exasperated but alarmed at how the EPA’s deviations from the statute and prior precedent systematically underprotected the public health. For example, in \textit{Sierra Club II}, the court reprimanded the EPA for focusing too narrowly on the capabilities of existing pollution control devices rather than on larger process and input controls used by industry to reduce air toxic emissions: “EPA’s rationales ... amount to nothing more than a concern about ensuring that its floor is achievable by all kilns in the subcategory—precisely the position we rejected in \textit{Cement Kiln}.”\textsuperscript{119} This judicial frustration with the EPA’s legally indefensible, industry-leaning interpretation of its mandate runs through both 2007 opinions, which hold in favor of the public interest groups on all seven points the groups raised in challenging two sets of air toxic emission rules.\textsuperscript{120}

The possibility that the courts provide an important institutional check on defective, industry-captured rules is strongly supported by these cases.\textsuperscript{121} To gain still better purchase on the capabilities of the courts to advance the public interest, however, this Study also

\textsuperscript{115} See infra Part III.B.2.
\textsuperscript{116} See infra Appendix 3.
\textsuperscript{117} See infra Appendix 3.
\textsuperscript{118} In \textit{Natural Resources Defense Council v. EPA}, the panel was composed of Circuit Judge Thomas Beall Griffith and Chief Judge Douglas Howard Ginsburg—both Republican appointees—and Circuit Judge Judith Ann Wilson Rogers—a Democratic appointee. In \textit{Sierra Club v. EPA (Sierra Club II)}, 479 F.3d 875, 876 (D.C. Cir. 2007), the panel was composed of Chief Judge Douglas Howard Ginsburg and Senior Circuit Judge Stephen Pain Williams—both Republican appointees—and Circuit Judge David S. Tatel—a Democratic appointee.
\textsuperscript{119} 479 F.3d at 881.
\textsuperscript{120} See infra notes 182-87; see also infra Appendix 3 (listing in more detail the issues that were reversed and remanded to EPA in these two cases).
\textsuperscript{121} See infra Appendix 3.
positions the litigated rules against the larger set from which they are drawn.

2. The Denominator Factor: Comparing the Appeals Against the Larger Set of Air Toxic Emission Standards

The first finding reveals that public interest groups are clear beneficiaries of judicial review, but the corollary proposition—namely that the courts serve as a significant check on agency policies that unreasonably undermine the public interest—does not follow automatically. The power of the courts is in part a function of the extent to which they are summoned to review rules. If courts are rarely deployed to run interference on the EPA's rulemakings, then their influence as overseers is likely to be much less significant than if they are frequent arbiters of disputes.

Because fewer than 8% of the air toxic rules were ultimately litigated to judgment, this denominator is likely to be important to assessing the significance of the courts as guardians of the public interest. More than 90% of the eighty-three air toxic rules were simply never reviewed by the courts. As an empirical matter, the low rate of appeals is consistent with the low appeal rate found in the empirical literature and further refutes the widespread, but unsupported, assertions of very high rates—around 80%—of judicial challenges to “significant” EPA rules that populated the literature in the 1990s.

122. See supra Part III.A.1.
123. See supra text accompanying note 107 (noting that only seven HAPs were litigated).
124. See Schroeder & Glicksman, supra note 111, at 10,375 n.40 (finding 111 appeals of rules that resulted in appellate opinions, or 3%, out of a total of 3553 rules promulgated by the EPA during the 1990s). Professor Cary Coglianese found a higher rate of litigation for economically significant rules promulgated by the EPA under the Resource Conservation and Recovery Act from 1980-1991; roughly a third of these rules were litigated. Cary Coglianese, Challenging the Rules: Litigation and Bargaining in the Administrative Process 95 (1994) (unpublished Ph.D dissertation, University of Michigan) (on file with author).
125. See, e.g., Richard J. Lazarus, The Tragedy of Distrust in the Implementation of Federal Environmental Law, 54 LAW & CONTEMP. PROBS. 311, 334 (1991) (“Both environmental organizations and industry took advantage of the increased judicial access and together challenged between 80 and 85 percent of EPA's major decisions.”); see also KAY LEHMAN SCHLOZMAN & JOHN T. TIERNEY, ORGANIZED INTERESTS AND AMERICAN DEMOCRACY 367 (1986) (“[V]irtually every regulation issued by such agencies as the Environmental Protection Agency and the Occupational Safety and Health Administration is challenged in court either by
Yet if the public interest victories constitute only a small slice of the larger rulemaking pie, it becomes important to determine whether this low appeal rate occurs because the remaining, approximately 90% of the rules are viewed as adequate from the standpoint of public health protection or, alternatively, whether appealed rules are low in number because of the scarce resources of public interest groups. If the public interest groups appeal only the rules they find problematic, then the system appears to be working quite well in protecting public health. A low appeal rate suggests that the EPA is generally doing a good job and that when the EPA slips up, the public interest groups are on hand to appeal. Equally impressive from the standpoint of this hypothesis, when the public interest groups do appeal, they tend to prevail, reinforcing their shrewd judgment on rule deficiencies. On the other hand, if the public interest groups find themselves strapped for resources and able to appeal only a small fraction of the rules that they would challenge in an ideal world of infinite resources, then the low appeal rate may instead be a worrisome sign that the judicial oversight mechanism for ensuring agency accountability is sorely incomplete.

The available evidence supports the more pessimistic view that the low appeal rate reflects limited public interest resources rather than a low number of rules that actually warrant challenge. In a discussion with a public interest group attorney involved in the air toxics litigation, the attorney cited the group’s scarce resources as a decisive factor in the group’s decision to select only a handful of rules to appeal in court and emphasized that the small number of appealed rules most certainly should not be read to suggest the group’s satisfaction with the remaining eighty-three emission standards.126 In selecting the rules to litigate, moreover, the public interest attorney conceded to using back-of-the-envelope assessments of the precedential value of the appeal, the extent of health

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126. See E-mail from anonymous public interest litigator involved in HAP’s rulemakings during the 1990s (Dec. 8, 2011, 17:08 EST) (on file with author).
protection potentially gained, and the ease of filing and prevailing in an appeal.\textsuperscript{127} These litigation-based assessments, the attorney admitted, undoubtedly miss important rules worthy of challenge, but the group found it had to triage its scarce resources.\textsuperscript{128}

Public interest group challenges are further limited by the groups’ inability to comment on all of the EPA’s HAPs rules. Specifically, public interest groups filed comments on less than half of the EPA’s air toxic rules, even though all of the rules have relatively direct implications for public health protection.\textsuperscript{129} Their selection strategy for commenting follows the same back-of-the-envelope assessment used for litigation.\textsuperscript{130} Yet if the public interest groups do not submit comments on the majority of the rules, then they waive their right to appeal those rules unless the agency is put on notice of the challenges in comments proffered by another party, such as a state.\textsuperscript{131} Indeed, in two of the seven litigated rules, the environmental petitioners did fail to file comments on the challenged rule but relied on comments filed by states to establish that the agency had adequate notice of their concerns.\textsuperscript{132} While this strategy worked most of the time,\textsuperscript{133} for two issues raised in these two cases, the courts held that the state comments did not raise their concerns with “reasonable specificity” to put the agency on notice about the problem and that the public interest groups had waived the challenges.\textsuperscript{134} Thus, even in the cases litigated to judgment,
environmentalists waived some potentially meritorious challenges because they failed to file comments, which in turn appears to be a result of scarce resources.

It also bears note that the litigated rules, as a group, are generally similar to the nonlitigated rules with respect to factors, such as the extent of industry dominance during the rulemaking life cycle and changes made to the final rule based on notice and comment, that might be expected to predict public interest challenges. For example, 85% of the changes made by the EPA to the proposed rules weakened the rules. This is true in both the litigated rules and the much larger set of rules that were not litigated by public interest groups. The only aberration is the PET resin rule, for which industry was the sole petitioner filing an appeal. Ironically, however, this rule involved considerably more industry participation during the preproposal stage and more changes made to weaken the rule than was the case for the larger set of ninety air toxics rules. Despite industry’s effective monopolization of this particular rulemaking process, relative to the larger set of rules, several industry members were sufficiently troubled by one feature of the rule to file administrative petitions for reconsideration with the EPA and ultimately pursue an appeal to judgment in the D.C. Circuit.

There is one bright spot in this otherwise dour assessment of the extent to which courts are engaged in overseeing the bulk of the EPA’s rules: the courts were much more involved in deadline suits, which were filed for more than 70% of all of the air toxic rules and resulted in consent decrees in all cases. The deadline suits

2004), two issues were raised and deemed waived because of the nonspecificity of the state comments.

135. See infra Appendix 2. The litigated rules were promulgated across different administrations in basically the same proportion as the larger set of ninety rules. See infra Appendix 1.

136. For every measure of interest group engagement and rule change, the mean for the litigated rules is within one standard deviation of the mean for all ninety air toxic rules. See infra Appendix 2.

137. See infra Appendix 1.

138. The PET resin rule involved 302 informal contacts versus a mean of 85 (SD=104) for all 90 rules. See infra Appendix 2.

139. The PET resin rule involved 20 changes weakening the rule versus a mean of 10.5 (SD=8.5) for all 90 rules. See infra Appendix 2.


141. See Wagner et al., supra note 9, at 52.
ensured that the standards would at least be promulgated in a reasonable time frame, although the substance of the rules was not under consideration. The much higher public interest litigation rate in filing deadline suits—73% of rules—as compared to appealing rules on the merits—7% of rules—is likely explained by the relative ease with which the litigation can be brought: no substantive issues or technical considerations need to be analyzed in order to assess whether the EPA has a statutory deadline and is missing it.  

3. Summary

The findings spotlight the importance of the courts in advancing the public interest, but they also raise questions about the comprehensiveness of this litigation in relation to the much larger set of rules of which they are a part. When summoned, the courts exert a powerful role as guardians of the public interest. However, the courts are involved in overseeing the substance of less than 10% of the EPA’s air toxic standards. More importantly, at least from the standpoint of the public interest, the evidence suggests that the litigated rules may only be the tip of the public interest litigation iceberg within the EPA’s larger air toxics standard-setting project.

B. What Is the Impact of the Courts’ Rulings on the EPA’s Rulemaking Project?

Even though affected stakeholders may not be able to file appeals on all air toxic rules that they find legally deficient, the courts exert a radius of influence that goes well beyond the handful of litigated cases that end in a judgment. Court opinions on agency rules offer important directions for how the agency must interpret the authorizing statute, find facts, and provide accessible public explanations for its decisions. Indeed, the very genius of judicial review is that

142. See 42 U.S.C. § 7604(a)(2) (2006). 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. See, e.g., Robert V. Percival et al., Environmental Regulation 999-1000 (5th ed. 2006) (describing these features of deadline suits).
143. See supra text accompanying note 123.
144. See, e.g., Linda R. Hirshman, Postmodern Jurisprudence and the Problem of
judicial precedent will permeate the entirety of the agency’s rule-making project and impact all future decisions, thus exerting an influence that goes well beyond the individual cases.

After first exploring the more direct impacts of the courts’ remands on the EPA’s standard-setting activities, this Part then considers the extent to which a few, strong court victories might influence the larger set of air toxic rules.

1. Repairing Deficient Rules

The most direct and immediate benefit to winning a case in court is that it will lead to changes in the rule. If environmentalists convince a court that the EPA should promulgate emission limits for mercury in its cement kiln rule, then on remand the EPA will make this change and the air will be cleaner.\(^{145}\) If industry convinces the court that the EPA’s monitoring requirements are excessively costly, then on remand the EPA will develop monitoring requirements that are less expensive.\(^{146}\) Although this impact of judicial review is limited to the rule under challenge, the repair of deficient rules is still a valuable and seemingly automatic effect of judicial review.

This inevitable impact of the courts’ orders on agency rulemaking is nevertheless absent from most of the litigated HAPs rules. Of all the appealed rules that ended in a remand—five out of six rules—only one of the deficient rules has been repaired, and even for this single rule, it took the EPA a decade to make the repairs.\(^ {147}\) See Table 1.
Table 1: The Fate of the EPA’s HAPs Rules on Remand

<table>
<thead>
<tr>
<th>Case Caption</th>
<th>Nat'l Lime II</th>
<th>Arteva</th>
<th>Mossville</th>
<th>Sierra Club II</th>
<th>Natural Res. Def. Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remedy</td>
<td>Remand</td>
<td>Stay</td>
<td>Remand and vacated</td>
<td>Remand and vacated</td>
<td>Remand and vacated</td>
</tr>
<tr>
<td>Date of Remand/ Vacatur</td>
<td>2000</td>
<td>2003</td>
<td>2004</td>
<td>2007</td>
<td>2007</td>
</tr>
<tr>
<td>Final Rule Revision</td>
<td>2010(^{148})</td>
<td>No projected date for proposed revised rule(^{149})</td>
<td>Consent decree promises final rule by July 2011, but proposed rule has still not been published(^{150})</td>
<td>No projected date for proposed revised rule(^{151})</td>
<td>Proposed rule issued in June 2010(^{152})</td>
</tr>
<tr>
<td>Time Between Remand and Final Rule Revision</td>
<td>10 years (pending)</td>
<td>7+ years (pending)</td>
<td>6+ years (pending)</td>
<td>3+ years (pending)</td>
<td>3+ years (pending)</td>
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</tbody>
</table>


\(^{149}\) See, e.g., E-mail from Susan Stahle, Office of Gen. Counsel, EPA, to author (June 30, 2010, 12:09 EST) (on file with author).

\(^{150}\) Consent decree promises final rule by July 2011, but proposed rule has still not been published.

\(^{151}\) No projected date for proposed revised rule.

\(^{152}\) Proposed rule issued in June 2010.
The failure of the EPA to repair remanded and vacated rules is in theory a temporary phenomenon, but the pervasiveness of the EPA’s noncompliance is significant enough to suggest real limits to the courts’ oversight role of the EPA’s air toxics rules. Specifically, four rules remanded by the courts in 2003, 2004, and 2007 are still unrevised, and the EPA has not even issued a proposed rule for three of them.\textsuperscript{153}

Despite the public interest wins on paper, then, the public interest victories remain largely symbolic in practice. Indeed, for the few vacated standards, the public interest successes in court may have unwittingly set air quality protections backward rather than forward.\textsuperscript{154} For the remanded and unrevised rules, there are currently no federal standards in place limiting toxic emissions from the covered industries. States may apply their own state-based restrictions while these federal standards are being hammered out,\textsuperscript{155} but this is presumably not the result that public interest groups had hoped for in challenging these rules. Ironically and in contrast, in its one solitary appeal in \textit{Arteva Specialties S.A.R.L. v. EPA}, industry actually enjoyed a double victory as a result of the EPA’s dilatory reparation efforts.\textsuperscript{156} Not only did the court remand the rule to the EPA, but it stayed the standard as applied to the petitioners’ facilities.\textsuperscript{157} \textit{Arteva’s} industry appellants have thus operated free of federal air toxic standards since 2003, with no sign of a proposed revised rule on the horizon.

The EPA’s protracted delays in repairing rules on remand may not be unusual. In their study of the effect of remand on agency rules, Professors Schuck and Elliott identified potentially significant delays in repairing rules across all of the agencies; five years after the courts’ opinions, about 10% of the remanded rules had not been addressed by the agencies.\textsuperscript{158} In his analysis of agency responses to

\begin{itemize}
\item \textsuperscript{153} \textit{See supra} Table 1.
\item \textsuperscript{154} The court vacated the EPA’s air toxic standards in \textit{Mossville}, 370 F.3d 1232, 1234 (D.C. Cir. 2004); \textit{Sierra Club II}, 479 F.3d 875, 884 (D.C. Cir. 2007); and \textit{Natural Resources Defense Council}, 489 F.3d 1364, 1375 (D.C. Cir. 2007), leaving no federal standard in place while the agency repaired the defective standard.
\item \textsuperscript{155} 42 U.S.C. § 7412(j) (2006) (requiring sources to obtain a permit that incorporates individualized emission limits in situations where no limits have been promulgated).
\item \textsuperscript{156} 323 F.3d 1088 (D.C. Cir. 2003).
\item \textsuperscript{157} \textit{Id.} at 1092.
\item \textsuperscript{158} \textit{See, e.g.}, Schuck & Elliott, \textit{supra} note 85, at 1050.
\end{itemize}
remands government-wide, Professor Hume also found a tendency by agencies to delay implementation of court-imposed repairs, particularly those that the agencies found disagreeable. Finally, in her recent study of serial litigation in the courts’ review of rulemakings, Professor Emily Meazell notes how many remands “fizzle into nothingness” with regard to the agency’s ultimate response.

The reasons for the EPA’s dismal track record in repairing rules are likely complex and variable, even within the small group of remanded rules that are the subject of this Study. A number of administrative law scholars have suggested that judicial review is too abstracted and legalized and may demand the impossible from agencies on remand. The cement kiln rule provides a possible illustration of this phenomenon. In the cement kiln rule, the EPA worked tirelessly to repair the rule on remand, but it faced opposition from virtually every affected party at each stage of the revision process. Figure 2 provides an illustration. EPA’s revised proposal, which was published five years after the court’s remand, attracted more than 1700 comments. After withdrawing its revised final rule because of litigation threats—three petitions were filed against the revised rule—the EPA published a second revised proposal in May 2009, which was more than 50 pages long and triggered another 3000 comments. The EPA promulgated a

159. See, e.g., Hume, supra note 25, at 77 (“[A]dministrators ... confess to limiting the effects of adverse decisions.... [by] decidi[ing] to delay implementation for as long as possible.”).


161. See, e.g., Cross, supra note 25, at 1321-22 (expressing this general concern); Jerry L. Mashaw, Bureaucracy, Democracy and Judicial Review: The Uneasy Coexistence of Legal, Managerial and Political Accountability 8 (Yale Law Sch. Pub. Law & Legal Theory Research Paper Series, Paper No. 194, 2009), available at http://papers.ssrn.com/sol3/papers.cfm ?abstract_id=1431601 (“When courts find that officials have misunderstood or misapplied their mandates they substitute judicial judgment for the judgment of administrators who have more direct connection to the democratic political process than judges have. Judicial review can undermine the bureaucracy’s political accountability rather than reinforcing it.”).


164. National Emission Standards for Hazardous Air Pollutants from the Portland Cement
second revised final rule in September 2010 and has already received a petition for reconsideration and published a proposal for amendments. Finalization of this ten-year revision effort does not appear imminent.

Figure 2: EPA’s Federal Register Activity Dedicated to Repairing the Remanded Cement Kiln Rule
Other remanded HAPs rules have received less attention from the EPA, and the agency’s delays in repairing these rules seem to be the result of simple inaction.\textsuperscript{167} There are a number of possible explanations for this inaction. For all of the remanded rules, George W. Bush was the Chief Executive at the time,\textsuperscript{168} and diverting agency resources to repair rules may not have been a priority of his administration, particularly when the resulting delays uniformly benefit industry.\textsuperscript{169} The EPA may also lack the resources to devote to the reparation of rules when it already faces a backlog of air toxic standards that are behind schedule.\textsuperscript{170} Indeed, because none of the remands and vacaturs, save possibly one, involves a legal obligation to promulgate the revised standard by a certain date, the EPA may have been first devoting its efforts to promulgating standards with legally enforceable deadlines.\textsuperscript{171} Public interest groups may even

\textsuperscript{167} Mossville Environmental Action Now v. EPA, decided in 2004, involved vacatur of a rule on appeal by environmental petitioners, and the EPA is only now engaging in the proposed-rule process that is governed by a subsequent consent decree with petitioners. See 370 F.3d 1232, 1232 (D.C. Cir. 2004); \textit{supra} note 112 and accompanying text. According to the rule docket, virtually no activity occurred with respect to repairing this rule over a nearly nine-year span, from 2002 to 2011. See U.S. ENVTL. PROT. AGENCY, DOCKET NO. EPA-HQ-OAR-2002-0037, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR POLYVINYL CHLORIDE AND COPOLYMERS PRODUCTION, available at \url{http://www.regulations.gov}. The EPA’s semiannual agenda similarly reveals that the agency continues to roll back the projected timeline for the proposed rule. See \textit{supra} Table 1. The EPA also appears to have made only limited progress in responding to the stay of the PET resin rule with respect to petitioners as a result of Arteva Specialities S.A.R.L. v. EPA, 323 F.3d 1088, 1092 (D.C. Cir. 2003). The EPA’s docket lists only two documents logged in after 2001: the final rule was promulgated in 2001 and stayed in 2003. See U.S. ENVTL. PROT. AGENCY, DOCKET NO. EPA-HQ-OAR-2001-0005, NESHAP POLYMERS AND RESINS IV, available at \url{http://www.regulations.gov}. Both documents in the PET docket are efforts by the EPA to develop more information on the cost-effectiveness of the monitoring requirements for subsets of industries, which was the issue remanded by the court.

\textsuperscript{168} See \textit{infra} Appendix 1.

\textsuperscript{169} See, e.g., Schuck & Elliott, \textit{supra} note 85, at 1052 (suggesting that certain events may occur after remand that explain agency inaction or resistance, including “changes in presidential or agency leadership”).

\textsuperscript{170} See \textit{supra} note 95 and accompanying text (discussing statutory deadlines reinforced by judicial decrees for the majority of air toxic rules).

\textsuperscript{171} The possibility that the EPA has limited resources and staff to devote to air toxic rules and prioritizes the new rules that are enforced by statutory and judicial deadlines, rather than the remanded rules, is further supported by the aberrational nature of the EPA’s inaction in repairing air toxic rules as compared with other EPA rulemakings. In a 1989 article, Rosemary O’Leary discovered that the EPA places a high priority on repairing remanded rules. Rosemary O’Leary, \textit{The Impact of Federal Court Decisions on the Policies and Administration of the U.S. Environmental Protection Agency}, 41 ADMIN. L. REV. 549, 561-62
support this prioritization because it maximizes the number of standards in effect.

In any event and whatever the explanation for the EPA’s delays in repairing the remanded rules, from the standpoint of the courts’ role in advancing the public interest, the findings are disappointing. Strong opinions and remands do not lead to repaired rules within a reasonable timeframe, and the public health and environment may be poorly protected in the interim.\footnote{172}

2. Precedential Effects

Fortunately, the EPA’s inability to repair the remanded rules does not affect the larger precedential impact of the court opinions. The “rule of law” limits that the courts place on agency discretion are arguably the single most significant impact that courts have on agency rulemakings.\footnote{173} Judicial review also reminds the agency that there is an institution that can intervene to review its decisions. Precedent thus guides future rulemaking decisions in ways that transcend the results in individual rulemaking projects.

From a systemic level, then, judicial review offers agencies directives on many rules. It constrains how the statute can be applied and interpreted across the entire rulemaking project. This substantive influence is particularly evident in the courts’ opinions governing the air toxic rules.\footnote{174} A coding of each of the litigated...
issues in all of the cases reveals that two-thirds of the issues remanded by the courts involved issues of statutory interpretation at the *Chevron* Step One stage. In fact, these statutory differences between the EPA and the courts on substantive matters of statutory interpretation became more, not less, frequent over time. By contrast, fact- or record-based challenges occurred in only four of the remands, and two of the issues were raised by public interest groups. One other empirical study also found a greater occurrence of Step One-based remands relative to Step Two-based remands, at least for the EPA’s rule challenges in the court of appeals.

See infra Appendix 3. An issue was identified as *Chevron* Step One if the court found that the agency’s rule violated the clear terms of the statute. *Chevron U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837, 842 (1984) (stating that Congress “has directly spoken to the precise question at issue” and the agency chose the wrong answer). Coding of the individual issues in each case is provided in Appendix 3; the page number assigned to each issue is provided for easy verification. All coding was conducted by the author.

Once the agency gets past Step One, which it did in only 41% of the cases, see infra Figure 3, it faces very high odds—in the Shroeder & Glicksman study, a 92% chance—of being upheld during Step Two when the court considers only whether the agency’s interpretation was “permissible” or “reasonable” in light of the statute. Schroeder & Glicksman, *supra* note 111, at 10,376-77; cf. *Hume*, supra note 25, at 21-22 (reporting that most of the agency losses in the courts of appeals are for failing to provide adequate justification and that only a few cases involve substantive grounds for reversal, such as a flawed interpretation of the statute).
Consistent with the Step One basis for most of the court remands, the emergent case law sets some “rule of law” limits on how the EPA can interpret and apply a statute in the course of its rulemakings. Although there was slight ambiguity on a few issues,\(^\text{177}\) the courts’ rulings, particularly on several repeat issues, left little room for the EPA to argue that the holdings are unclear.\(^\text{178}\)

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\(^\text{177}\) See infra notes 200-05 and accompanying text (discussing wiggle room).

\(^\text{178}\) See Sierra Club II, 479 F.3d 875, 876, 878 (D.C. Cir. 2007); Natural Res. Def. Council v. EPA, 489 F.3d 1364, 1369, 1371 (D.C. Cir. 2007); see also HUME, supra note 25, at 39-40 (discussing the use of strongly worded judicial reprimands to catch the agency’s attention and limit its discretion in interpreting an opinion).
Text Box 1: “Rule of Law” Constraints Imposed on the EPA’s HAPs Emission Standards by the Case Law

1. “No control” standard for individual hazardous substances is not an option under the statute; the EPA must set emission limits for all HAPs. *Sierra Club II*, 479 F.3d at 883; *National Lime II*, 233 F.3d at 634; see also Final Rule for Portland Cement Kilns, 75 Fed. Reg. at 54,970, 54,973 (Sept. 9, 2010) (confirming these constraints).

2. EPA must measure “actual emissions” from best performers to set emission standards. Achievability—that is, whether all firms can meet those limits—is not a consideration under the terms of the statute. *Sierra Club II*, 479 F.3d at 880; see also 75 Fed. Reg. at 54,973.

3. Variability cannot be benchmarked against the low performers to determine industry capabilities. *Sierra Club II*, 479 F.3d at 882; see also 75 Fed. Reg. at 54,973.


5. EPA cannot create a low-risk exemption for major sources under Section 112. *Id.* at 1371.

6. Nontechnological mechanisms for control need to be included in the EPA’s analysis of firms’ capabilities for emissions reductions. The EPA cannot consider only technological mechanisms of control and ignore other methods of limiting HAPs emissions, such as changing inputs. *Sierra Club II*, 479 F.3d at 883; see also 75 Fed. Reg. at 54,973.

7. EPA cannot substitute work practice standards for emission standards without satisfying the statutory criteria. *Sierra Club II*, 479 F.3d at 884.
However, even this strong body of precedent appears, in practice, to exert less influence on the EPA’s rules than one might expect. First and most striking is the fact that the EPA largely ignored or, when that failed, aggressively distinguished precedent that imposed more stringent standards on industry. The EPA’s effort to either ignore or distinguish away these judicial interpretations is evidenced in four of the five issues that the EPA lost when it litigated its brick kiln rule in 2007. This is also seen in at least one, if not all three, of the issues that the EPA lost when it defended the plywood rule in 2007. The 2007 panel presiding over the challenge to the brick kiln rule seemed nonplussed by the EPA’s nonacquiescence: “Other than again claiming that it has no obligation to set floors unless sources take some deliberate action to control emissions, EPA has failed to offer any reason for distinguishing what it did here from what we invalidated in National

179. See, e.g., Sierra Club II, 479 F.3d at 880-81 (holding that the statute and D.C. Circuit cases are clear that in setting floors, the EPA must base standards on what the best performers actually achieve, rather than claiming that they must be set at a level that is achievable by all sources; the EPA tried to circumvent these requirements by redefining “best performing”); id. at 881-82 (holding that D.C. Circuit precedent made it clear that it was a violation of the statute for the EPA to use worst-performing sources as measure of variability in best-performing sources without at least a demonstrated relationship between the two; the EPA insisted that natural variability allowed it to do this); id. at 882-83 (holding that the EPA must consider nontechnology factors if they are present; the EPA argued for consideration of deliberate steps only).

180. See id. at 883 (noting that only one of the five issues on appeal is not controlled by either Cement Kiln Recycling Coalition v. EPA (Cement Kiln), 255 F.3d 855 (D.C. Cir. 2001), or National Lime II)

181. See infra notes 190-92 and accompanying text. Even though the court chastised the agency in its 2000 National Lime II decision for adopting “no controls” for specific toxic chemicals for which the best performing industry had not demonstrated technological processes for limiting emissions, Nat’l Lime II, 233 F.3d 625, 633-34 (D.C. Cir. 2000), the EPA did precisely this same thing again in both the brick kiln and plywood rules, see, e.g., Sierra Club II, 479 F.3d at 883; Natural Res. Def. Council, 489 F.3d at 1371. The EPA’s inability to credibly make arguments in its defense led it to agree to withdraw that portion of the plywood rule that adopted a “no control” floor without requiring the court to rule on the issue. Id. The EPA requested a remand of its rule following Sierra Club II to the extent that the EPA had failed to establish emission standards for listed HAPs. The other two issues on which the EPA’s rule failed at Step One—its risk-based exception and its effort to provide extensions on the statute’s compliance scheme in ways that had no statutory justifications —appear sufficiently out of line with the clear terms of the statute that one wonders whether they were the product of higher-level political decision making. See infra note 197 and accompanying text.
"Lime II." Yet, even after the courts’ repeat admonishments, the EPA still may be considering ways to sidestep precedent through creative interpretations, such as further subdividing industry groups in ways that impose fewer controls on certain subsets of industry. Thus, although some of the courts’ holdings do seem to impose hard legal constraints on the EPA, the agency in at least some cases seems to minimize the impact of precedent on its preferred course of action.

The EPA’s occasional irreverence toward precedent does not appear to be unique to the air toxic rules. In other regulatory settings, agencies have explicitly nonacquiesced to binding precedent,

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182. *Sierra Club II*, 479 F.3d at 883.

183. See National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry, 74 Fed. Reg. 21,136, 21,140, 21,144, 21,148 (proposed May 6, 2009) (to be codified at 40 C.F.R. pts. 60, 63) (discussing the permissibility and advantages of subcategorizing industries to provide for higher emission standards for some groups of industry and avoid shutdowns that might otherwise result from a single emission standard, and citing Judge Williams’s concurrence as endorsement of this approach); see also U.S. ENVTL. PROT. AGENCY, DOCKET NO. EPA-HQ-OAR-2002-0051-2102, IMPLICATIONS OF THE BRICK MACT DECISION ON EPA’S DISCRETION IN SETTING MACT FLOORS 1, 15, 29 (Jan. 25, 2009), available at http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2002-0051-2102 (identifying the flexibility remaining after the Brick MACT decision, particularly with regard to accounting for variability among firms in setting emission standards). This move may be further emboldened by Judge Williams in his concurrence in *Sierra Club II*, 479 F.3d at 885 (Williams, J., concurring) (“[A]lthough] authority to generate subcategories is obviously not unqualified .... [O]ne legitimate basis for creating additional subcategories must be the interest in keeping the relation between ‘achieved’ and ‘achievable’ in accord with common sense and the reasonable meaning of the statute.”).

184. Another interesting question that this Study does not explore is why the EPA seems inclined to promulgate industry-leaning rules in these cases. There are many possible answers that, again, likely vary among rules and presidential administrations. One possibility is that some of the courts’ demands that require more stringent emission standards may prove so costly that the EPA is concerned about a litigation backlash from industry on multiple subissues associated with those more stringent standards. Thus the EPA may be trading a litigation loss to public interest groups against litigation losses to industry. Given the evidence on the engagement and resources of these two groups, the EPA may generally find it more cost effective to assume that industry will sue, and, as a result, it leans in their direction even when the case law seems to suggest differently. Cf. HUME, supra note 25, at 73 (reporting on how agency officials comply with court rulings to avoid future litigation, which in turn assumes that the successful group in the first case will likely be a repeat player in subsequent rules).

185. The view that the courts would not be able to control agency discretion is one that has been held for a number of decades. See, e.g., KENNETH CULP DAVIS, DISCRETIONARY JUSTICE 27-28, 215-16 (1971); MARTIN SHAPIRO, THE SUPREME COURT AND ADMINISTRATIVE AGENCIES 265 (1968).
although this occurs most often in circuit splits. In these cases, agencies take litigation risks to advance their preferred policies. Moreover, although nonacquiescence tends to be discussed in the literature as a problem that needs to be fixed, it may simply be an institutional fact of life that suggests that the courts’ role is often secondary to political considerations and that this subsidiary role will be difficult to alter.

Even more telling in assessing the impact of adverse court opinions on the EPA’s behavior is evidence of explicit legal risk taking by the EPA. In its plywood and composite rules, for example, the EPA seemed to fully appreciate that a particularly novel interpretation of the statute—creating a low-risk exemption for major sources—was legally vulnerable under the plain language of the statute but concluded it was worth the risk given the extralegal gains, such as political and economic benefits, if the approach survived in final form. The court unanimously held that the

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186. See Hume, supra note 25, at 92 (“Nonacquiescence occurs when an agency applies a court decision only to the parties who participated in the original litigation, refusing to treat the case as binding precedent in subsequent proceedings.”); id. at 77-78 (discussing how agencies interpret unwelcome judicial opinions as narrowly as possible and sometimes view a court opinion as just part of an ongoing dialogue); Meazell, supra note 160, at 1782-83 (discussing cases in which the agency effectively ignored the courts’ adverse rulings).

187. See, e.g., DeShazo & Freeman, supra note 61, at 2250-51 (describing how “judicial review is ... an imperfect oversight tool” given the ability of an agency to ignore or distinguish precedent that is in conflict with its policy or related objectives); see also Frederick Schauer, When and How (If at All) Does Law Constrain Official Action?, 44 GA. L. REV. 769, 770, 786-88, 797-801 (2010) (modeling some of the variables that affect and constrain official action and discussing the limited impediments imposed by the law in many circumstances).


189. See, e.g., DeShazo & Freeman, supra note 61, at 2250-51 (concluding that courts enjoy only limited control over agencies).

190. See Final Rule on National Emission Standards for Hazardous Air Pollutants: Plywood Industry and Composite Wood Products, 69 Fed. Reg. 45,946, 45,953-54 (July 30, 2004) (construing section 122(c)(9) of the Clean Air Act as allowing the agency to remove subcategories of HAP sources from the list of sources subject to MACT standards). Although section 122(c)(9)(B) only refers to the ability to delete “any source category from the list” if it meets certain criteria, the EPA relied on the mention of the word “subcategories” in section 122(c)(9)(B)(ii) in its interpretation of the CAA. Id. at 45,946.

exemption was “plainly prohibited”: “Whatever factors EPA might properly consider for subcategorization, it has no authority to create a low-risk subcategory scheme that allows harmful emissions in a manner contrary to Congress’s statutory scheme.”192 Yet the possibility of judicial reversal did not deter the EPA from engaging in this legally risky experiment.193

In their study of the judicial review of EPA rules during the 1990’s, Professors Glicksman and Schroeder similarly identified several legally tenuous rules that the EPA promulgated in order to advance certain policy preferences.194 They concluded that the “EPA may have incentives to proceed with some interpretations of statutes even when it believes them to be erroneous. A particular interpretation may be necessary to satisfy an important constituency, for example.”195

The limited role of the courts in affecting the agency’s decision-making process makes sense, in fact, when viewed from a broader, institutional vantage point.196 Agencies have several masters, and the courts may be less threatening than other sources of pressure.197 Even when an agency receives clear directions from the court, it

193. Id.
194. Schroeder & Glicksman, supra note 111, at 10,387 (discussing rules for which the “EPA had strong policy preferences that it chose to pursue even though the arguments that its authorizing statute could be interpreted to allow that pursuit were extremely weak,” and noting further that it seemed clear in these cases that the “EPA’s lawyers knew they were advancing weak arguments”).
195. Id. at 10,377-78; see also id. at 10,379-83 (elaborating on some of these tensions between agency policies and statutory directions using individual cases).
196. The ideology of the agency or even the appointees themselves seems an important determinant in the agency’s receptivity to court rulings. See, e.g., HUME, supra note 25, at 87 (reporting that the “more strongly the FCC and FERC disagree with case outcomes ..., the less likely they are to change their policies”).
197. See, e.g., id. at 74 (quoting from interviews with agency officials who acknowledge the influence that politics may have on agency rulemaking, even when it may leave the agency vulnerable to appeal); Mashaw, supra note 161, at 19-20 (discussing the simultaneous and sometimes conflicting accountability checks imposed at once by the courts and the President on agencies).
may not always comply with the court’s ruling when the prospect of reversal is outweighed by other factors—like politics or ideology. The legal malleability of most rulemakings, moreover, likely allows a creative agency to identify at least some alternative paths around problematic precedent. As Professor Mashaw has noted, it is difficult to squeeze the discretion out of the agencies.

There are other, more mundane reasons why the impact of the courts’ precedent may not always constrain the EPA’s discretion in the air toxic rules. First, while some of the courts’ interpretations are relatively unambiguous, other issues decided by the courts allow more wiggle room for interpretation. For example, in *Mossville Environmental Action Now v. EPA*, the court permitted the EPA to consider the variability among all sources in setting emissions reductions for PVC manufacturers, but when the EPA attempted to rely on *Mossville* to make similar, variability-based estimates for the brick kiln industry, the court vacated the rule because the EPA failed to produce evidence showing that the variability of the worst-performing sources was indicative of the variability of the best-performing sources. The court’s elaboration in 2007 on the

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198. *Cf.* id. at 10,377 (discussing how the EPA may choose to “eschew rulemaking” to avoid statutory language that is clearly contrary to its desired action).

199. See JERRY L. MASHAW, GREED, CHAOS, AND GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW 154 (1997) (“Squeezing discretion out of a statutory-administrative system is indeed so difficult that one is tempted to posit a ‘Law of Conservation of Administrative Discretion.’”).

200. In promulgating the Portland Cement emission standard challenged in *National Lime II*, the EPA also relied heavily on a 1999 opinion in justifying its decision, later vacated, to base emission standards on technology achievable by the industry in the most adverse circumstances and in setting “no control” standards for individual HAPs when the best industry was not controlling emissions for these air toxics. *See Sierra Club v. EPA*, 167 F.3d 658 (D.C. Cir. 1999); Final Rule on National Emission Standards for Hazardous Air Pollutants for Portland Cement Manufacturing Industry, 64 Fed. Reg. 31,910, 31,915 (June 14, 1999). The *National Lime II* court disagreed with the EPA’s 1999 interpretation of its *Sierra Club opinion*. 233 F.3d 625, 629, 634-35 (D.C. Cir. 2000).

201. 370 F.3d 1232, 1242 (D.C. Cir. 2005) (“[E]ach [source] must meet the [specified] standard every day and under all operating conditions.”). The court further agreed that in that case the worst performing sources’ variability was indicative of the variability among best-performing sources. *Id.*

202. *Sierra Club II*, 479 F.3d 875, 881-82 (D.C. Cir. 2007) (“[T]he EPA has failed to show [as it did in *Mossville*] that the emission levels achieved by the worst performers using a given pollution control device actually predict the range of emission levels achieved by the best performers using that device.”).
implicit requirements of its 2004 holding in *Mossville* is logical,\(^{203}\) yet the EPA’s alternate, more literal application of the 2004 holding is also legally plausible. Thus, some of the EPA’s violations appear traceable to credible legal differences in interpreting and applying the courts’ precedent, rather than to nonacquiescence. Gaps and ambiguities in the court opinions are particularly inevitable for a complex standard-setting project like the air toxic rules.\(^{204}\) In fact, the D.C. Circuit admitted that some of its holdings might be limited to the unique details of the individual air toxic rules:

> This court has adopted an “every tub on its own bottom” approach to EPA’s setting of standard pursuant to the CAA, under which the adequacy of the underlying justification offered by the agency is the pertinent factor—not what the agency did on a different record concerning a different industry.\(^{205}\)

Second, at least a few of the court opinions that remand the EPA’s HAPs rules have limited precedential effect because they are fact specific. The court’s decision in *Arteva*, reversing an air toxics rule because of the EPA’s failure to document the reasonableness of a mandatory monitoring requirement, offers virtually no guidelines for other air toxic rules.\(^{206}\) Though most of the court rulings are not this fact specific, when they are, the resulting decisions offer little precedential guidance.

Finally, and perhaps most importantly, the court’s strongest and most thorough opinions were issued in 2007,\(^{207}\) after about 90% of the air toxic standards had already been promulgated as final and the opportunity for appealing them had passed.\(^{208}\) Thus, the bulk of the court’s most important rulings in terms of the statutory interpretation of section 112 of the Clean Air Act were published at a

\(^{203}\) The 2004 *Mossville* opinion discusses the EPA’s factual support for its approach to estimating variability. 370 F.3d at 1242. Yet in this portion of the opinion, the court does not explicitly define the factual predicates that apply to extrapolation from limited data regarding variability, thus leaving room for ambiguous and varying interpretations of the ruling. *Id.*

\(^{204}\) See, e.g., *Cross*, supra note 25, at 1278-81 (predicting that this inevitability would be one of the many drawbacks of judicial review).

\(^{205}\) *Sierra Club I*, 353 F.3d 976, 986 (D.C. Cir. 2004).


\(^{207}\) See *Natural Res. Def. Council v. EPA*, 489 F.3d 1364, 1367-68 (D.C. Cir. 2007); *Sierra Club II*, 479 F.3d at 884.

\(^{208}\) See *infra* Appendix 3.
point in time when their influence was, in practice, necessarily limited.209

Viewed skeptically, court precedent in the air toxic rules may thus place only a few limited constraints on the EPA’s interpretation of the statute in setting air toxic emission standards, and by no means does this body of cases serve as an insurmountable barrier to the EPA persevering with its preferred policy on a number of issues. Yet if the courts face practical impediments in their ability to advance the public interest when they conclude that an agency’s interpretation is not in keeping with the statute, then it is worth investigating whether there are also downsides associated with judicial review that may inadvertently undermine public interest protections.

C. Some of the Unintended Costs to the Public Interest from Judicial Review

It is well known that judicial review may affect agency rulemakings in unintended ways that ultimately impair the courts’ and even the agency’s ability to advance the public interest.210 These costs, when added to the more limited gains, could mean that the courts’ net effect on advancement of the public interest is negative rather than positive. To simplify the identification of these unintended side effects, the courts’ opinions are assumed to be beyond reproach as a legal and policy matter, thus removing at least one possible complication from consideration.211 Ossification is also not tested in these rules because, as mentioned, all the rules are

209. The court issued one important decision regarding statutory interpretation in 2000 in National Lime II, after more than one-third of the rules had been promulgated. 233 F.3d 625, 634 (D.C. Cir. 2000). This decision held the EPA’s interpretation of the statute as allowing “no control” of some HAPs was invalid. Id. at 633. The court’s ruling should have in theory constrained the agency in setting the remaining standards, but as discussed above, the agency seemed to consciously ignore the court’s ruling and was held in violation of that same issue in two subsequent remands in 2007. See supra notes 179-84 and accompanying text. With the exception of this one issue decided in 2000, there were no opinions that remanded the EPA’s standard-setting based on flawed statutory interpretation until 2007, after 90% of the standards were promulgated as final. See infra Appendix 3.

210. See Cross, supra note 25, at 1311 (noting that judicial review tends to encourage adversarial and dishonest dealings that adversely affect the rulemaking process).

211. For a discussion of some of the possible flaws in the court’s opinions themselves, see generally MELNICK, supra note 74.
promulgated under statutory deadlines and the vast majority of these deadlines are backed by judicial decrees.\footnote{212. See McGarity, supra note 46 at 1385-86 (describing ossification); supra note 95 and accompanying text.}

Despite the significant narrowing of the possible unintended side effects arising from judicial review, at least three types of costs in the air toxic rules may undermine the ability of the courts to advance the public interest. The first and most obvious cost results from the delay associated with a court challenge.\footnote{213. See Cross, supra note 25, at 1313-14 (expressing concern that the diversion of resources to respond to and defend against litigation may not be justified by the benefits that judicial review adds to the process).} With respect to reaching a final judgment, each of the judicial challenges of the seven rules added two years, on average, to the rulemaking process.\footnote{214. See infra Appendix 1.} Additional delays occurred in the EPA’s repair of remanded rules, in some cases leaving no federal standards in place for years while the details of these revised rules are being worked out.\footnote{215. See supra Part III.B.1.} Such litigation-related delays benefit industry at the expense of the public interest, at least in protective standard setting. Indeed, this lopsided feature of litigation may be used strategically by regulated parties to gain additional concessions from the agency.\footnote{216. For example, Professors Owen and Braeutigam suggest in their “Strategies for Established Firms and Industries” ways to game the EPA:

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.

Owen & Braeutigam, supra note 110, at 4-5. By contrast, environmental groups often see delay as a window during which health is not sufficiently protected. See, e.g., Ronald J. Hrebenar, Interest Group Politics in America 262 (3d ed. 1997) (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 also 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 199, at 174 (noting that the timing of review and associated compliance costs affect a party’s stake in challenging a rule}
A second, related cost arising from judicial review involves substantive and resource drains associated with the agency’s negotiation of rulemaking petitions. Rulemaking settlements are reached after a final rule is promulgated, but before an appeal to the court, in order to limit the risks of a remand and minimize the delays and related agency drains associated with judicial review.217 While agency resources dedicated to rulemaking settlements are likely to be less taxing administratively than revising rules on remand, these settlements still appear to demand considerable agency resources in some cases.218

The cement kiln rule provides an illustration of these resource drains. After the final rule was promulgated in 1999, a group of industries threatened to raise a separate set of challenges against the rule in the D.C. Circuit.219 The EPA ultimately settled this batch of industry claims, which involved twenty-four discrete changes to the rule, but the settlement was neither simple nor quick.220 Similarly, in an unrelated rule governing PET manufacturers, the EPA made a series of concessions over a five-year period in response to industry’s petitions for reconsideration.221 Presumably the agency hoped to mollify the industry’s concerns through these negotiations. The EPA’s concessions ultimately proved insufficient to prevent
litigation, and yet the process of repeat reconsideration of the rule undoubtedly took a toll on agency resources.

Indeed, because these settlements are sometimes secret, the extent to which post-rule settlements drain agency resources is difficult to estimate. From the information available in the air toxic rules, it appears that the EPA engaged in a significant level of post-final rule petition activity. At least one-third of the ninety rules triggered petitions for reconsideration or notices of appeal. Because most of these petitions did not lead to an appeal resulting

222. Some and perhaps most of the settlements and negotiations are not recorded in the rule docket or published in the Federal Register, so their prevalence and resource demands remain largely mysterious. See, e.g., Gaba, supra note 217, at 1254 (discussing potential secrecy of rulemaking settlements).

223. See infra Appendix 2.
in judgment, moreover, it appears that at least some of the challenges to the rules were settled rather than voluntarily withdrawn by interest group challengers.224

Finally, judicial review may impose invisible, but potentially more significant, costs on the agency by creating incentives for the agency to compromise substantive features of the rules in an effort to minimize the threat of appeals. For example, the agency might make changes preemptively in its final or even in its proposed rule in response to comments that raise a credible threat of litigation, unless there are countervailing agency policies that are too significant to ignore.225 Indeed, if the agency is intent on getting a rule through the process expeditiously, it may work closely with the litigious groups throughout the development of the rule in an effort to neutralize their opposition.226 Mollifying litigious groups during rule development or during the comment process could go a long way to lower the agency’s litigation risks.

The effect of these litigation-based incentives on agency behavior is well accepted in administrative law.227 As Professor Strauss observes, “the very act of being hauled into court and required to defend its action involves considerable costs [to the agency].... Hence, parties who are capable of imposing such costs at the end of the regulatory process become parties whose interests must be reckoned with during the regulatory process.”228 This influence likely occurs during multiple points of the process, moreover, including the development of the proposed rule, the notice-and-comment process, and further clarifications, amendments, or other addenda to a final rule after it is published. An attorney steeped in administrative process expands on this view based on his personal experience:

The reason that the Agency is generally receptive to well-reasoned technical comments.... [is] not only because they want

224. See, e.g., Wagner et al., supra note 9, at 130 (discussing the fact that the number of petitions filed by industry exceeds the number of appeals filed by the same).

225. See id. at 131 (discussing this possibility).

226. See, e.g., Wagner, supra note 79, at 1380-83 (discussing the importance of the rule development process to minimizing litigation risks for an agency).

227. See, e.g., id. at 1387-88 (recounting some literature on this point).

228. PETER STRAUSS ET AL., GELLHORN AND BYSE’S ADMINISTRATIVE LAW 1121 (9th ed. 1995).
to appear to be reasonable and responsive to public comments, but also because their willingness to refine a regulatory program—to address identified flaws in the program—should help that program withstand judicial review.\footnote{229}

Yet if the EPA truly seeks to minimize its litigation risks by giving higher priority to comments that raise appealable issues, then the more litigious and heavily engaged groups are likely to enjoy greater influence in EPA rules.\footnote{230} In the case of the EPA’s air toxic rules, these more engaged groups are likely to be industry, in part because they possess superior access to the relevant information and in part because the complexity and technicality of the rules may impede participation by more thinly financed groups.\footnote{231}

To the extent that industry dominance corresponds with credible threats of litigation, which in turn translates into greater influence over the substance of the final rules, however, judicial review may be setting back protection of the public health rather than advancing it, at least on balance. Besieged by dozens of litigatable issues by industry, and only a few, if any, by public interest groups, the agency will find itself substantively leaning toward industry simply to survive judicial oversight. As one EPA official remarked with respect to the heavy involvement of industry in the rule development stage: “We help them; they help us.”\footnote{232}

\footnote{229. Andrea Bear Field & Kathy E.B. Robb, EPA Rulemakings: Views from Inside and Outside, 5 Nat. Resources & Envt., Summer 1990, at 9, 50 (quoting an experienced administrative law attorney in D.C.).}

\footnote{230. See, e.g., Murray J. Horn, The Political Economy of Public Administration 64-65 (1995) (noting how affected interest groups who wield the threat of litigation enjoy enhanced power over rulemakings); William F. West, Administrative Rulemaking 188 (1985) (arguing how judicial review may be used as a lever by industry to gain concessions from an agency); Philip K. Howard, Keynote Address: Administrative Procedure and the Decline of Responsibility, 48 Admin. L. Rev. 312, 318 (1996) (“[T]he power is held by interest groups and others who can afford the lawyers to play the process and go to the courts.”); Mashaw, supra note 161, at 17 (“Judicial review ... gives important legal armaments to obstructionist elements in the agencies’ regulatory space. Every rule is contestable on a host of possible legal and factual grounds and a reviewing court’s reaction to these complaints is often unpredictable.”); see also Michael C. Harper, The Case for Limiting Judicial Review of Labor Board Certification Decisions, 55 Geo. Wash. L. Rev. 262, 270-79 (1987) (discussing this phenomenon in the context of judicial review of NLRB decisions); cf. James M. Landis, The Administrative Process 36 (1938) (noting that “the umpire theory of administering law” is not likely to prevail because of the skew in resources among affected parties).}

\footnote{231. See, e.g., Wagner, supra note 79, at 1380-88.}

\footnote{232. Coglianese, supra note 124, at 14.
These predicted disparities in participation and influence in fact occurred in the EPA’s air toxic rules and with relatively significant levels of imbalance and input. Just during the development of the proposed rules, industry had more than eighty informal communications, on average, with the EPA, as compared with fewer than one communication, on average, for the public interest groups for these same rules.\(^{233}\) Industry also dominated the comment process with about seventeen industry comments for every one public interest group comment. For more than half the rules, moreover, public interest groups did not even provide a single comment.\(^{234}\) Even if the agency is otherwise inclined to favor public interest groups, the incentives created by litigation could lead agency staff to err on the side of appeasing the most vocal groups in order to get a rule finalized in a reasonable time frame.\(^{235}\)

Even more to the point, this imbalance in comment activity appears to be taking a toll on the substance of the resulting rules. The air toxic rules became weaker from the proposed to final version: 82% of the changes the EPA made to each final rule, on average, involved weakening it in some way, and the number of industry commenters significantly correlated with the number of changes that the EPA made to weaken a rule—about one weakening change for every two industry commenters.\(^{236}\)

\(^{233}\) \textit{See infra} Table 2 & Appendix 2. There is no readily available record of the extent of pre-NPRM negotiations occurring on the early Clean Water Act standards, but one gets a sense from the Coggins & McGarity account that this early exchange during the rulemaking process was quite limited. \textit{See} Coggins & McGarity, \textit{supra} note 110, at 9 (discussing agency reticence to heed industry criticisms and agency tendency, in some cases, to outright ignore industry criticisms). This noncommunication during rule development may in fact explain the high rate of industry challenges that resulted in appellate decisions under the Clean Water Act and the nearly mirror image of challenges, brought almost exclusively by environmental groups, for otherwise similar HAPs technology-based standards, which appear to have been crafted after several years of intensive negotiations and discussions with industry before the agency even issued the proposed rule.

\(^{234}\) \textit{See infra} Figure 5 and accompanying text.

\(^{235}\) \textit{See, e.g.}, Cross, \textit{supra note} 25, at 1315-22 (discussing the skew in favor of regulated parties more generally as an adverse side effect of judicial review). \textit{But see} Funk, \textit{supra} note 218, at 1386 (In contrast to negotiated rulemaking, “the agency still determines the public interest. Modern rulemaking has not substituted interest representation theory for traditional notions of administrative rulemaking.”).

\(^{236}\) Wagner et al., \textit{supra} note 9, at 135 (reporting a correlation coefficient of .54 between industry commenters and changes made to weaken the final rule, which was statistically significant at the 99% confidence level).
exists between the public interest comments and changes made to strengthen the rule. Industry also filed more petitions for reconsideration against air toxic rules as compared with public interest groups, even though it took only one of these petitions to judgment.

This imbalanced participation and influence by industry in the EPA’s air toxic rules occurred consistently across both the Clinton and George W. Bush administrations. Although the data reveal little about the significance of the individual changes made to weaken rules, they do indicate that both the Clinton and Bush EPAs were very receptive to informal contacts with industry and that both EPAs weakened the rules in response to comments at roughly the same rate. Moreover, and as mentioned previously, more than half of the rules appealed to the courts were drafted in principle by the Clinton EPA. Nevertheless, the Bush EPA was present through all of the judicial remands and is thus primarily responsible for the EPA’s delays in repairing the rules, as well as for some of the more egregious forms of nonacquiescence and legal risk taking evidenced in the two 2007 cases.

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237. Id.
238. Id. at 129 (providing a data table on this point).
240. See id. at 16-17.
241. See supra note 87 and accompanying text.
242. See infra Appendix 1.
Table 2: Interest Group Engagement and Influence in All Ninety Air Toxic Rules

<table>
<thead>
<tr>
<th></th>
<th>Informal Pre-NPRM Communications</th>
<th>Comments During N&amp;C</th>
<th>Changes Made by EPA to Weaken the Final Rule After N&amp;C</th>
<th>Changes Made by EPA to Strengthen the Final Rule After N&amp;C</th>
<th>Total Petitions for Reconsideration and Court Filings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>83</td>
<td>35</td>
<td>11</td>
<td>N/A</td>
<td>20% of rules (N=18)</td>
</tr>
<tr>
<td>Public Interest Groups</td>
<td>1 (comments were filed in only 47% of rules)</td>
<td>2</td>
<td>N/A</td>
<td>2</td>
<td>14% of rules (N=13)</td>
</tr>
</tbody>
</table>

This additional evidence of extensive exchanges between the agency and industry brings new meaning to the dazzling litigation successes of the public interest groups. If industry is in fact enjoying substantial victories during the rulemaking process, then its failure to appeal may simply reflect the fact that it has few issues of substance left to litigate. Certainly industry’s failure to appeal rules is not due to the fact that it lacks standing to sue, nor does it seem likely, after such heavy engagement in the rule development and comment process, that industry lacks resources to press claims through to litigation.

243. Note that the litigated rules fall within one standard deviation of this mean on virtually all measures. See infra Appendix 2.

244. It is assumed that changes weakening the rule are attributable to industry and changes strengthening the rule are attributable to public interest groups. It is likely that there in fact is not always a one-to-one match; as a result, the quantitative data do not correlate precisely to interest groups on this variable. In further research, the actual comments of industry and public interest groups will be coded to determine the reliability of this assumption.

245. As mentioned earlier, the scarcity of appeals from industry is a surprise. A number of administrative law scholars discuss how the cost-benefit analysis of challenging agency rules in court should lead to greater use of the courts by industry rather than by the public interest groups. See, e.g., Cross, supra note 25, at 1255 (observing the benefits of judicial
At the same time, public interest groups may be the primary litigants for this same reason: industry enjoyed a disproportionate influence in the rulemaking process. The fact that the courts identified multiple flaws with the EPA’s interpretation of the statute from the perspective of the public interest lends still more support to the possibility that the rules emerging from this skewed process are tilted too far toward industry.  

To the extent that judicial review is undermining the public interest in a significant subset of rules, however, a paradox emerges. On the one hand, the courts appear to be an important, and perhaps the only, institutional tool available to hold the complex but wrongheaded rules up to the public light once they are challenged. On the other hand, the courts may offer the most resourceful participants still greater legal leverage than they already enjoy, particularly for rules that are devoid of public interest engagement. The final part of this Article takes up this paradox in more detail.

IV. REVISITING THE IMPACT OF JUDICIAL REVIEW ON AGENCY RULEMAKINGS

The interaction between the courts, the EPA, and interest groups in the entire set of air toxic rules defies simple generalization. At one end of the spectrum, some of the air toxic rules epitomize the operation of the interest group representation model in its full glory. In these rules, all affected interests engage intensely in the rulemaking process, and their participation, particularly through

246. See supra notes 174-78 and accompanying text.
247. Cf. Cross, supra note 25, at 1274-75 (discussing the arguments that favor agencies over courts in terms of accountability).
248. See supra notes 230-32 and accompanying text.
judicial review, makes at least some difference to the final rules that emerge.  

At the other end of the spectrum, a sizable number of rules exemplify the traditional model of judicial review characteristic of the mid-1900s. In this set of rules, regulated parties are the exclusive participants in the rulemaking process and appear to engage primarily in order to protect their rights against arbitrary regulation.

These two different models of interest group engagement in the air toxic rulemaking process yield contrasting results with regard to the ability of judicial review to advance the public interest. In this Part, the two models are explored further. The analysis then closes with some general questions that arise with regard to the courts' influence, regardless of the diversity of interest group engagement.

A. Interest Group Representation Model

The litigated cases challenging the EPA’s air toxic emission standards exemplify the critical role judicial review plays in advancing the public interest. Public interest groups brought six of the seven cases challenging the EPA’s air toxic emission standards and won all but one of their appeals. In two of the opinions, both decided by a panel of judges that had more Republican than Democratic appointees, the court berated the EPA for a series of interpretive errors that the court held violated its statutory mandate in ways that undermined public health protection. On most of the issues for which the EPA’s rules were vacated and remanded, moreover, the courts found that the EPA had not only ignored its statutory limits but had also ignored the courts’ own precedent. As one of the panels concluded: “The agency’s errors could not be more serious insofar as it acted unlawfully, which is more than sufficient reason to vacate the rules.”

249. See supra Part III.A.1.
250. This one-sided engagement by regulated industry occurs despite clear public health implications of the rules promulgated by the EPA. See supra note 232 and accompanying text.
251. See supra Part III.A.1.
252. See supra note 118 and accompanying text.
253. See generally Natural Res. Def. Council v. EPA, 489 F.3d 1364 (D.C. Cir. 2007); Sierra Club II, 479 F.3d 875 (D.C. Cir. 2007).
The end result of these public interest victories was a series of court opinions that constrain the EPA’s interpretation of the Clean Air Act in ways that advance public health protection. When the EPA attempted to implement a large exemption process in a section of the Clean Air Act that did not contemplate such a loophole, the court intervened to block the maneuver. When the EPA declined to set standards for certain toxins because the best-performing industries were not voluntarily installing pollution-control devices to limit their emissions, the court demanded that the EPA reconsider and find a way to regulate the uncontrolled emissions. Without judicial review, these types of problematic EPA interpretations would have been promulgated as binding rules.

The public interest group victories in the appeals of the air toxic standards, particularly when set against the continuous industry presence in the rules, leave little doubt that the interest group representation model is alive and well. The courts serve as critical watchdogs. Indeed, EPA staff may have celebrated the judicial remands and reversals in all of these public interest suits because at least a few of the EPA’s legally invalidated decisions appeared to

255. See id. at 1371-73.
256. See supra note 181.
257. See Sargentich, supra note 20, at 641 (arguing exactly this attribute of courts in preventing the worst abuses of agencies by applying “law-governed checks by decisionmakers not affected by the same political or institutional pressures facing executive branch officers”).
258. The case governing HAPs rules for brick kilns may be even more egregious in evincing signs of possible capture of the EPA by industry. The proposed rule contained a number of seemingly illegal decisions, including not only the five that were subject to condemnation by the court on appeal, see Sierra Club II, 479 F.3d 875; see also infra Appendix 2, but also one proposal the EPA dropped in the final rule because of comments—the same risk-based exemption that ultimately failed in the plywood litigation. See National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing; and National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing, 68 Fed. Reg. 26,690, 26,706 (May 16, 2003) (explaining the EPA’s decision to not include a risk-based exemption in the final rule based on comments received); see also Natural Res. Def. Council, 489 F.3d at 1372 (striking down this risk-based exemption in the plywood rule). What cannot be told from these cases given the small percentage of rules subject to litigation, however, is whether the cases are exceptional or instead generally representative of the larger set of HAPs rules.
259. From the standpoint of thinly financed public interest groups, moreover, filing comments and then appealing problematic rules may offer a more affordable means of participating than engaging in extensive, informal negotiations with the agency throughout the rulemaking process. See Stewart, supra note 1, at 1771. Given the heavy involvement of industry, see infra Appendix 2, it would seem quite costly for the public interest groups to attempt to keep up with these discussions and remain a meaningful presence throughout.
stem from politics, rather than from a good faith interpretation of the statute by EPA career staff. 260

Reinforcing the public interest benefits to judicial review are several secondary attributes of the courts’ oversight that are not apparent from the data, but may be just as important. Ex ante, the prospect of judicial review likely forced the agency to be clearer about its decision-making process, particularly the changes it made to the proposed rule. When it did not provide this kind of explanatory backdrop to the court’s satisfaction, the EPA faced a risk of having its rule remanded for further explanation.261 In the air toxic emission standards, in fact, three of the seven remands were based in part on insufficient support or explanation.262 If the agency is able to provide this type of explanation without incurring other types of countervailing political costs, then the courts’ review provides useful motivation for the agency to publish a more accessible and transparent rule.

Additional transparency benefits also accrue ex post, after the rulemaking is briefed and resolved by the court. The courts’ opinions make the agency’s foibles more accessible to a broader audience, allowing political and related forces to sanction and discipline the agency.263 In his study of the effects of court opinions on agency behavior, Professor Hume discusses how court rulings can trigger press coverage and political pressure that in turn shine a much brighter light on agency decisions.264 The briefing process even helps

260. See, e.g., HUME, supra note 25, at 74-75 (quoting agency officials who discuss how the courts’ rulings give ammunition to resist political pressure from the White House or Congress that takes the rulemaking too far out of the bounds of the statute); see also supra notes 186-89 and accompanying text.

261. See generally Schroeder & Glicksman, supra note 111, at 10,405-11 (describing a decade of cases in which EPA rules were remanded for failure to support the agency’s reasoning).

262. See infra Appendix 3. The cases remanding the agency, at least in part on insufficient factual justification, are Mossville Environmental Action Now v. EPA, 370 F.3d 1232, 1242-43 (D.C. Cir. 2004), Arteva Specialties S.A.R.L. v. EPA, 323 F.3d 1088, 1088 (D.C. Cir. 2003), and National Lime II, 233 F.3d 625, 635 (D.C. Cir. 2000).


264. See, e.g., HUME, supra note 25, at 118.
the parties themselves focus their arguments in ways not encouraged earlier in the rulemaking process.265

The courts’ important role as communicator and translator is also apparent qualitatively. The text box below compares the EPA’s own convoluted explanation of a contested issue with the much more accessible explanation provided by the court. While the court is grappling with only a few issues—an advantage that likely helps the court bring greater clarity to its description of the issue—the court may also face stronger incentives to serve as a translator as compared with the agency. 266 When the EPA takes a position on a controversial issue, for example, it is likely to be attacked not only legally, but politically.267 One way to cope with this inevitable opposition is to offer up convoluted, though comprehensive, explanations that support the agency’s decision instead of clear explanations about how it resolved competing policy positions. The courts, on the other hand, gain prestige in part by their ability to crystallize the contested issues and place them into sharper focus in relation to the statute.

265. Coglianese, supra note 124, at 160-61. One attorney even conceded that their appellate brief was unsuccessful in part because the brief writers had failed to do an adequate job of controlling information excess: the brief “was so filled with so many issues of such a technical nature that I think we got lost in explaining basically how simple this one [issue] was.” Id. at 160 (alteration in original).

266. See, e.g., Meazell, supra note 263, at 780.

267. See, e.g., Mashaw, supra note 199, at 184 (“The specter of administrative agencies failing to protect the public health and safety, as they have been ordered to do by congressional legislation, can often capture media attention and promote particular legislators’ personal goals.”); Melnick, supra note 74, at 322 (describing how the agency can serve as “every elected official’s favorite whipping boy”).
Text Box 2: A Comparison of the EPA’s and the Court’s Descriptions of How the EPA Determined the Best-Performing Facilities Within the Brick Kiln Industry for Establishing Its Emission Standards

<table>
<thead>
<tr>
<th>EVP’s Description</th>
<th>The Court’s Description</th>
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<tbody>
<tr>
<td><strong>EPA’s Description</strong></td>
<td>As discussed above, we held in Cement Kiln that “EPA may not deviate from section 7412(d)(3)’s requirement that floors reflect what the best performers actually achieve by claiming that floors must be achievable by all sources using MACT technology.” 255 F.3d at 861. In setting the floor for existing large tunnel brick kilns, however, EPA did just that. [discussing and quoting from EPA’s rule and justification]... EPA argues that it has “reasonably construe[d] the term ‘best performing’... to allow it to consider whether retrofitting kilns with a particular pollution control technology is technically feasible.” Resp’t’s Br. 27. But EPA cannot circumvent Cement Kiln’s holding that section 7412(d)(3) requires floors based on the emission level actually achieved by the best performers (those with the lowest emission levels), not the emission level achievable by all sources, simply by redefining “best performing” to mean those sources with emission levels achievable by all sources. See 255 F.3d at 861. Moreover, EPA’s rationales for excluding kilns equipped with non-DLA technology from its ranking of the best-performing large tunnel kilns (the infeasibility of retrofitting all kilns with certain non-DLA technology and the negative impact other non-DLA technology would have on productivity) amount to nothing more than a concern about ensuring that its floor is achievable by all kilns in the subcategory—precisely the position we rejected in Cement Kiln.</td>
</tr>
<tr>
<td>Section 112(d)(3) of the CAA specifies that we set standards for existing sources that are no less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources (for which the Administrator has emissions information) where there are 30 or more sources in the category or subcategory. Our interpretation of average emission limitation is that it is a measure of central tendency, such as the arithmetic mean or the median. If the median is used when there are at least 30 sources, then the emission level achievable by the source and its APCD that is at the bottom of the top 6 percent of the best-performing sources (i.e., the 94th percentile) represents the MACT floor control level. We based our MACT floors for each BSCP subcategory on this interpretation. Nineteen percent (22 of 115) of the existing large tunnel kilns located at synthetic minor sources or major sources are controlled by a DLA (12), DIFF (4), DLS/FF (4), or WS (2). Because more than 6 percent of the large tunnel kilns reduce emissions by some technique, emissions reductions from those kilns are required under the CAA. We then considered which of those controls are proven to be applicable to existing tunnel kilns, and we ranked those kilns to determine the appropriate MACT emission limits. We consider the 12 DLA to be equivalent and believe that this type of control can be applied to any existing large tunnel kiln without causing potentially significant production problems. We consider the performance of all of the DLA to be equivalent because there currently are two types of DLA in the industry (supplied by two manufacturers), and we have test data for both designs that show HF removal efficiencies that are within 1 percent of one another. We excluded DIFF and DLS/FF from our ranking of controls for existing sources because of the reported problems caused by applying DIFF and DLS/FF to existing kilns. We excluded WS from our ranking of controls for existing sources because many facilities do not have proven wastewater disposal options. Therefore, we only considered DLA in our ranking, and accordingly, the 94th percentile source (the 7th best-controlled source) is a DLA-controlled kiln. Therefore, the MACT floors for existing large tunnel kilns are based on the level of control achieved by a DLA. We have DLA outlet test data for 7 of the 12 existing large DLA-controlled tunnel kilns, and therefore, we are confident that our test data are within the best-controlled 6 percent of sources. Furthermore, the single best-performing source, based on our available DLA outlet data, is one of the three sources for which a control efficiency is available.</td>
<td>National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing; and National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing, 68 Fed. Reg. 26,680, 26,700 (May 16, 2003).</td>
</tr>
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Together, these judicial attributes mark the triumph of the interest group representation model in advancing the public interest. Liberalized standing rules do indeed allow public interest groups to exert a meaningful presence in EPA rulemakings.\textsuperscript{268} Equally importantly, the appeal process allows these groups to bring critical legal questions about the agency’s rules to the attention of the media, the public, and the political branches.\textsuperscript{269}

\textbf{B. The Traditional Model, Revisited}

In contrast to the vigorous pluralistic and judicial oversight afforded to the air toxic standards discussed in the last Section, a sizable subset of air toxic standards—more than half—involves no public interest participation at all. Interest group engagement in this subset of rules is largely one-sided: regulated industry effectively monopolizes the entire rulemaking process—from rule development, to notice and comment, to filing petitions for reconsideration.\textsuperscript{270}

Despite the absence of public interest engagement, the public interest is nevertheless directly affected by these standards. Every one of the EPA’s air toxic rules imposes limits on the toxic emissions of large industries and requires these facilities to reduce their pollution.\textsuperscript{271} Moreover, because the sources covered by the Act are “major” and emit more than ten tons per year of air toxics, the reductions are likely significant in quantity because they ultimately reduce net emissions by a considerable percentage.\textsuperscript{272}

The evidence also does not suggest that the rules without public interest involvement were qualitatively less important to the public health than those that did attract public interest comments.\textsuperscript{273} The EPA’s toxic emission standard for PVC manufacturers, for example, lacked any public interest engagement\textsuperscript{274} yet it required reductions

\begin{itemize}
\item \textsuperscript{268} See supra note 22 and accompanying text.
\item \textsuperscript{269} See supra notes 260-62 and accompanying text.
\item \textsuperscript{270} It is worth noting that this subset of rules constitutes the majority, 53% (N=48), of the EPA’s air toxic rules. See infra Figure 5.
\item \textsuperscript{271} 42 U.S.C. § 7412(d) (2006).
\item \textsuperscript{272} Id. § 7412(a)(1), (d)(1).
\item \textsuperscript{273} See infra Appendices 1, 2.
\item \textsuperscript{274} See infra Appendix 2.
\end{itemize}
of 3880 tons of emissions of these toxics annually, or about a 20% reduction from base levels.275 By comparison, Mossville, a case that environmental groups actually litigated,276 involved fewer emission reductions—only about 400 tons of air toxins per year—from 28 facilities nationwide.277 Additionally, of the economically significant rules promulgated by the EPA, rules that might be expected to involve the greatest emission reductions because of their economic consequences, more than 35% of the rules (N=14), did not involve public interest group comment.278

Figure 5: Public Interest Group Engagement in HAPs Rules

HAPs rules that public interest groups appealed to judgment

HAPs rules that involved at least one comment from public interest groups

Rules involving no public interest comment or litigation activity

278. See infra Appendices 1, 2.
Thus, although all of the EPA’s air toxic rules might benefit from pluralistic oversight, such oversight is not occurring in the majority of the standards.\textsuperscript{279} Instead, engagement by interest groups in the majority of the air toxic rules comes much closer to the traditional or due-process model common in the mid-1900s.\textsuperscript{280} In this model, courts are brought in exclusively by the regulated parties “to cabin administrative discretion within statutory bounds” and to require that “agencies ... follow decisional procedures designed to promote the accuracy, rationality, and reviewability of agency application of legislative directives [with respect to their interests].”\textsuperscript{281} In its engagement with the air toxic rules, in fact, industry’s primary comments concerned the feasibility, cost, practicality, and timeline of the EPA’s emission standards. Industry rarely, if ever, advocated for greater health protection.\textsuperscript{282}

A good illustration of this traditional or due-process model of administrative process is a HAPs rule that applies to polymer manufacturers. In this particular rule, the EPA proposed emission limits on a handful of carcinogenic air toxics emitted from about sixty-six plants that manufactured polyester fibers, soft drink bottles, and various plastic parts and toys.\textsuperscript{283} Despite the relatively clear public health implications for these emission standards, there was no public interest group participation.\textsuperscript{284} By contrast, industry and industry associations engaged in more than 450 contacts with the agency before the proposed rule was even published.\textsuperscript{285} At comment time, industry was again the dominant participant, effectively monopolizing notice and comment: there were thirty-six industry commenters and one state commenter, but not a single commenter from the public interest community. In response to these comments, the EPA made twenty changes that further weakened the rule and rejected only six comments.\textsuperscript{286} No significant comments were made

\textsuperscript{279}. See supra Figure 5.
\textsuperscript{280}. See Stewart, supra note 1, at 1669.
\textsuperscript{281}. Id. at 1670.
\textsuperscript{282}. This is based on the review of more than thirty individual industry comments filed on air toxic rules as well as on the larger data indicating statistical correlations between industry commenters and changes to the rules that weaken the rules. See infra Appendix 2.
\textsuperscript{283}. U.S. ENVTL. PROT. AGENCY, supra note 275, at 1-3.
\textsuperscript{284}. See infra Appendix 2.
\textsuperscript{285}. More than 300 of these contacts were informal. See infra Appendix 2.
\textsuperscript{286}. See infra Appendix 2.
urging the EPA to strengthen the rule.287 Still unhappy, two individual industry petitioners appealed the rule to the D.C. Circuit, arguing that the EPA arbitrarily failed to consider the excessive costs of the monitoring requirements.288 In Arteva Specialties S.A.R.L. v. EPA, the D.C. Circuit concluded that the EPA’s rule was arbitrary on this issue and vacated and remanded the rule to the agency in 2003.289 The court’s opinion, for which the panel comprised one Republican and two Democratic appointees,290 focused like a laser on the very specific factual complaints of the industry petitioners—namely, that evidence suggested that the EPA’s monitoring requirements were not cost-effective in detecting violations from equipment leaks for all affected industries, as opposed to other types of monitoring equipment—and found them compelling.291

If there are no public interest commenters available to file suit, the agency can ignore its mandate in ways that detrimentally impact the public health.292 And while the interest group representation model should not be interpreted literally to require an active public interest presence in all rules, in reality if public interest groups are absent from most of the rules, then the interest group representation model seems to poorly characterize what actually occurs in practice.

Even when the agency does attempt to advance the public interest based on internal ideological or political directives, the agency faces counter pressure from litigation-backed comments filed by industry, which could delay the standards for years while the litigation is being resolved. At least in the air toxic rules, however, the evidence

287. See infra Appendix 2.
289. Id. at 1088, 1092.
290. Circuit Judges Harry T. Edwards, Karen LeCraft Henderson, and Judith W. Rogers composed the panel. See id. at 1089. Judges Edwards and Rogers were Democratic appointees, and Judge Henderson was a Republican appointee.
291. Id. at 1091.
292. See generally McKart v. United States, 395 U.S. 185, 193-95 (1969) (setting out the reasons for exhausting remedies first within the agency before raising the issue with the court). In his study of OSHA, Patrick Schmidt documents the greater influence that follows the submission of comments as compared to more informal input that does not serve as the basis for appeal. See Patrick Schmidt, Pursuing Regulatory Relief: Strategic Participation and Litigation in U.S. OSHA Rulemaking, 4 BUS. & Pol. 71, 77-78 (2002). Obviously, however, there still can be political consequences if the agency’s violations are caught and found offensive to politically powerful constituents.
reveals that the EPA favors industry in the final rules, regardless of presidential administration.  

Seen from this perspective, the high success rate of public interest groups’ appeals may simply be an indication of just how problematic the larger set of air toxics rules are and may foreshadow the substantial mop-up work that the courts and public interest litigators have ahead of them. Recall that in rules that involve only industry comments and related communications, judicial review is generally available only to industry and thus advances only industry’s concerns. To the extent these industry concerns are mutually exclusive with advancing the public interest, an administrative process backed by a threat of appeal, but monopolized or at least dominated by industry, will thus tend to move the public interest goals backward, rather than forward.

The limited body of empirical work that traces the interest groups’ engagement in rulemakings is largely congenial to the findings reached here regarding the possibility of strong industry domination and influence in the majority of rules. The major empirical studies report that public interest groups filed comments in less than half of the rules under study; in the half of the rules that did involve diverse comments, industry was still the dominant participant. This research also shows industry dominance of, or

293. Although the aggregate or net effect of these litigation pressures appears to cause the EPA to lean heavily in favor of industry, the EPA does put up a fight in some cases. For example, the EPA rejected 18% of significant comments to weaken the rule, thus suggesting that litigation threats may not always be decisive. See infra Appendix 2. In the emission standard ultimately challenged in Arteva, for example, the EPA resisted weakening certain monitoring requirements, despite the fact that industry launched two separate petitions for reconsideration over five years. See supra note 221 and accompanying text. In a few rules the EPA even decided to strengthen a rule despite the absence of a meaningful public interest group presence during the comment process. See infra Appendix 2.

294. See supra note 235 and accompanying text.

295. See Maureen L. Cropper et al., The Determinants of Pesticide Regulation: A Statistical Analysis of EPA Decision Making, 100 J. POL. ECON. 175, 178, 187 (1992) (examining interest group engagement in pesticide registrations between 1975 and 1989 and finding environmentalists participated in 49% of the cancellations); Marissa Martino Golden, Interest Groups in the Rule-Making Process: Who Participates? Whose Voices Get Heard?, 8 J. PUB. ADMIN. RES. & THEORY 245, 253-54 (1998) (studying eight rules promulgated by EPA and NHTSA, using content analysis to determine who participates and influences federal regulations, and finding no citizen engagement in five of the eight rules); Yackee & Yackee, supra note 9, at 131, 133 (studying forty lower-salience rulemakings promulgated by four different federal agencies and finding that business interests submitted 57% of comments,
at least heavy engagement in, the litigation that follows promul-
gation of a final rule.\textsuperscript{296}

\textit{C. The Limits of the Courts}

The data also reveal some stark limits to the courts’ influence
over agency decision making, regardless of whether the interest
group oversight is diverse and pluralistic or exclusively dominated
by industry.\textsuperscript{297} In the air toxic rules, only a small percentage (8\%) of

\textsuperscript{296} Professor Coglianese, for example, found that industry was by far the most dominant
This was also during the Reagan administration, and public interest groups were doing
particularly vigorous battle with the administration over hazardous waste policies.
Specifically, about 90\% of the lead plaintiffs in the appeals of the RCRA rules were
corporations or trade associations representing industry; indeed “the dominance of industry
groups as participants in litigation becomes even more pronounced” as compared with the
notice-and-comment period. Coglianese, supra note 124, at 100-01.

There is also strong qualitative evidence of industry dominance in the litigation over the
EPA’s Clean Water Act technology-based standard-setting rulemakings. See supra note 104
and accompanying text; see also LETTIE M. WENNER, THE ENVIRONMENTAL DECADE IN COURT

By contrast, Dr. Wenner’s research on interest group use of the courts in the 1970s and
1980s to challenge agency rules revealed that environmental groups brought the greatest
number of cases in the court of appeals in the early 1970s. See id. at 41, 43; Lettie McSpadden
Wenner, Interest Group Litigation and Environmental Policy, 11 POLY STUD. 671, 673-74
(1983). Business then caught up and exceeded environmental appeals by the late 1970s,
although by what appears to be only a 10 to 20\% greater number of appeals filed. See Wenner,
supra note 110, at 46 fig.3.2. In terms of success rates on appeal, the two groups stayed
relatively close to one another. Id. at 51 fig.3.4. It should be noted that Dr. Wenner’s data
include both the appeal of enforcement cases as well as appellate challenges to rules.

Professor Mashaw, apparently in anticipation of a gap between court opinions and
agency behavior, argues that agency statutory interpretation should be studied as an
autonomous enterprise, with its own forces, incentives, and methodologies that are often
wholly independent from the courts. See, e.g., Mashaw, supra note 54, at 900-01 (discussing
how agencies respond to presidents and thus are likely to take risks to advance presidential
politics, and concluding that “[a]gencies who never lose in court are probably not doing their
jobs”). Although Professor Mashaw does not directly take up the issue of nonacquiescence, his
preliminary sketch of agency incentives identifies a number of competing reasons that
agencies may decide to take litigation risks and underscores the inevitable ambiguities that
most judicial opinions hold with respect to future agency policies. Mashaw, supra note 25, at
515 (“[G]iven the context of most judicial constructions of agency statutes ... it is often unclear
what binding force the judicial interpretation was meant to have for future policy.”).
the rules were actually appealed to judgment. This low rate of appeals is reinforced by similar findings in several other empirical studies. The direct radius of the courts' influence, then, extends over only a small percentage of the total set of rules. Although the resulting appeals and court opinions set precedent, the fewer the cases, the more limited the opportunities for courts to provide meaningful oversight of agency rulemakings.

The limitations of the courts' remedial powers are also apparent in the air toxic rules. The courts remanded five rules from 2000 to 2007, and only one has been repaired. Even when the EPA's repromulgation is governed by a consent decree with petitioners, the EPA lags well behind schedule. The air toxic rules may be aberrational in the long period it takes the EPA to repair rules on remand, although the courts' more general limitations in effectuating their judgments are well known in administrative law.

Even the courts' precedential impact on the EPA's air toxic rulemaking project must be qualified because the agency resisted following the courts' instructions on several important interpretations. The EPA did not explicitly nonacquiesce with respect to this precedent, but it did seem to ignore or at least creatively distinguish important statutory guidance by courts in cases decided in 2000 and 2001. The EPA also took risks in the creative interpretation of its statutory authority that the agency openly acknowledged were vulnerable to judicial invalidation, but it persevered for reasons that appear largely political. The possibility that political influence can sometimes trump litigation risks is not necessarily unprecedented; as Professor Christopher Edley notes, "[P]olitics is lurking in almost every agency decision and in every

298. See supra notes 123-25 and accompanying text.
299. See supra Table 1.
300. See supra note 150 and accompanying text.
301. See supra notes 158-59 and 178-93 and accompanying text.
302. It is assumed for the sake of simplicity that the courts' environment-leaning interpretations in the cases that environmental groups won will advance the public interest more than the agency's vacated interpretations. This assumption is contestable, however.
303. See, e.g., Sierra Club II, 479 F.3d 875, 880-83 (D.C. Cir. 2007) (chastising EPA for ignoring National Lime II, 233 F.3d 625 (D.C. Cir. 2000), and Cement Kiln, 255 F.3d 855 (D.C. Cir. 2001)).
304. See supra notes 194-95 and accompanying text.
corner of administrative law.” Yet if the agencies consider the courts only to be one constraint, and a small one at that, then that fact calls into question the ability of the courts to deter the agency from straying from its mandate, even in cases where the agency’s interpretation appears facially at odds with the statute. Again, seen through this light, the courts’ strongly worded opinions and repeat warnings could be read to do no more than fire a few shots across the bow of an agency that is otherwise relatively unfazed by the courts’ opinions that limit its discretion.

One should not overstate the EPA’s willingness to risk challenges and adverse judgments from the courts. There are ambiguities and even inconsistencies in some of the earlier opinions interpreting the air toxic provisions of the Clean Air Act, and it is possible that the EPA simply believed in good faith that subsequent standard-setting applications presented facts that were unique enough to allow it to distinguish these earlier cases. Presumably, too, after the court issued a second, firmer opinion remanding the rule on a Chevron Step One error, the EPA will either follow or distinguish the precedent in a much more rigorous way in subsequent rules.

Nevertheless, the evidence does raise questions about the extent to which unwelcome court opinions present binding constraints on agency action. If it in fact turns out that the courts only occasionally influence future agency decision making, then the benefits of

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306. Stewart also raises this concern about the effects of judicial review on social regulation under the interest group representation model. See Stewart, supra note 1, at 1804 (expressing concern that because of the multiple constraints acting on the agency, “[t]he amelioration of agency bias wrought by the judicial system may thus be largely cosmetic”).

307. For example, the EPA presumably now believes it simply cannot interpret the statute to provide a risk-based exemption to emission limits for major industries. See, e.g., Natural Res. Def. Council v. EPA, 489 F.3d 1250, 1258 (D.C. Cir. 2007). The EPA may also appreciate that in all HAPs rules it must set limits on listed air toxins, even when the 88% best technological process does not control for them and it cannot ignore nonproduction bases for limiting emissions. See Nat’l Lime II, 233 F.3d at 628, 631, 633-34. If facilities can limit toxic emissions through means that do not involve inputs—for example, by pollution prevention—then this entire suite of operational approaches is fair game in determining what the best available technologies can accomplish. See supra Text Box 1. Thus, there are reasons to believe that the agency now views several of the courts’ rulings as hard constraints that apply across all rules and that will be honored regardless of who engages individually in those rulemaking efforts.
judgetul review may be more limited than initially thought and should be set against other costs, such as the possibility that the agency may compromise the substance of its rules in order to avoid delays and other resource drains associated with litigation.

CONCLUSION

This Study of EPA’s air toxic rules reveals potentially significant problems in the viability of the pluralistic model in settings when interest groups have dramatically different resources available to participate. At least in the air toxic rulemakings, diverse interest group oversight is the exception rather than the rule. Moreover, even in the minority of cases when a full set of interested parties is engaged in a rulemaking and the stakeholders deploy the courts to review problematic rules, the data reveal that the EPA may ignore or at least limit the courts’ commands through creative interpretations of the precedent. Although the courts’ role in individual cases as guardians of the public interest is uncontestable, on the whole judicial review proves less influential than is generally expected. Indeed, the net effect of judicial review may well be to provide regulated industries with legal leverage that, in the aggregate, actually undermines the agency’s ability to act on behalf of the public.

The results of this Study also spotlight the need for further empirical study of the judicial review of agency rulemakings. The current design of administrative process, which relies heavily on interest groups to hold the agencies accountable, emerged in the 1970s at a time when interest group participation was considerably more evenly balanced between public interest groups and industry participants. If these conditions are no longer present, then the ability of some groups to dominate the regulatory process at the expense of others deserves additional research and may warrant reform.
## Appendix 1
### General Information on Litigated Air Toxic Rules

This appendix contains all of the basic information on each litigated HAPs rule. The data was collected from the case opinions, by citechecking the case to identify petitions for rehearing or for cert, and by searching the Federal Register Unified Agenda to determine the current status of each remanded rule.

In all appendices below, E= environmental group and I = industry group.

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Appendix 2

Interest Group Involvement in Air Toxic Rules (all rules and then by litigated rules individually)

The data on interest group engagement were collected by coding the docket indices for each of the HAPs rules. The data on changes made to the rules were collected by coding the changes the EPA listed in each final rule that constituted significant changes from the proposed rule. For a fuller description of the methods used to generate this information, see Wagner et al., supra note 9, app. at 153.

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Appendix 3  
Nature of Issues Decided in Litigation à la Chevron

This table identifies each of the issues reviewed by the D.C. Circuit in each of the HAPs judicial appeals. The rows of the table are exactly the same as those used by Schuck & Elliott, *supra* note 85, at 1032-33, although any rows without data were omitted. The data was collected by coding each issue raised in the case. The table lists each issue in order (#) and identifies the page where the court issued its opinion on the issue.

Legend: REM = Remand; REJ = Reject; WIN = rule correction without remand

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<tr>
<td>Case cite</td>
<td>233 F.3d 625</td>
<td>323 F.3d 1088</td>
<td>353 F.3d 976</td>
<td>370 F.3d 1232</td>
<td>479 F.3d 875</td>
<td>499 F.3d 1364</td>
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<td>Petitioner</td>
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<td>Date of court opinion</td>
<td>2000a (same case)</td>
<td>2000b (same case)</td>
<td>2003</td>
<td>2004</td>
<td>2004</td>
<td>2007</td>
<td>2007a (same case)</td>
<td>2007b (same case)</td>
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<tr>
<td>Remands for errors of substantive law [Chevron Step One]</td>
<td>REM: #2, p.634 (control all HAPs).</td>
<td>REM: #1, p.983 (did not violate statute with PM surrogate approach – only looked at best – not an interpretation issue); #7, p.990 (EPA’s reading is reasonable and so is applying step two with deference).</td>
<td>REJ: #1, pp.880 (for relation to <em>Missoule</em>, see p.882); #2, p.882 (somewhat of a hybrid – worst to gauge best); #3, p.883 (nontechnical factors); #4, p.884 (no basis for doing work practice standards).</td>
<td>REM: #1, p.1371 (low risk ultra vires/end-run) (note EPA conceded “no controls was also violation, so court did not rule); #2, p.1373 (no extension).</td>
<td>REM: #3, p.1242</td>
<td>REJ: #2, pp.1246-42 (conflict with)</td>
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<td>Remands for lack of adequate factual support</td>
<td>REM: #3, p.635</td>
<td>WIN: #6, p.641</td>
<td>REM: #1, p.1092</td>
<td>REJ: #1, p.985; #2, p.986; #3, p.987; #4-6, pp.988-90 (lumped as one);</td>
<td>REM: #3, p.1242</td>
<td>REJ: EPA did support refusal to subcategorize one industry.</td>
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<td>Misc.</td>
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<td>REJ. #11, p.992 (ESA not ripe yet).</td>
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<td>Waived</td>
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<td>One issue was waived, but the court actually seemed to consider a lot of the claim anyway.</td>
<td>Two issues were waived (#3).</td>
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