

PRESIDENTIAL AND JUDICIAL POLITICS IN ENVIRONMENTAL LITIGATION

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ABSTRACT

This Article assesses the impact of judicial review on one of the nation’s foundational environmental statutes, the National Environmental Policy Act (“NEPA”). Based on litigation spanning fifteen years, we find that the stringency of judicial review is driven by the interaction of judicial ideology and presidential politics. Our principal findings are two-fold: First, judicial ideology, here defined by political party affiliation, is most influential when NEPA’s environmental goals conflict with the politics of the presidential administration in power. Second, the influence of judicial ideology is mediated by the distribution of cases across federal circuits and the ideological balance of judges within them; specifically, the concentration of NEPA cases in the Ninth Circuit, where liberal appellate judges are in the majority. Under well-defined conditions, we find that judicial review is most demanding when the risk of statutory subversion is greatest—that is, when the politics of an administration conflict with the purpose of the governing statute.

The normative and practical implications of these observations are illustrated by comparing NEPA with the expanding array of legal mandates that prescribe elaborate economic cost-benefit analyses. Most recently, the Trump Administration has issued a raft of executive orders and Congress is considering new legislation that augment the economic reviews required under existing laws and regulations. Understanding the interplay between presidential politics and judicial review provides new grounds for concern that, unlike NEPA, the pending statutes could seriously disrupt and delay agency decision-making processes. Further empirical study of judicial

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review under a range of statutes is needed to determine how broadly our findings apply to judicial review of agency action across the federal government.

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INTRODUCTION

The actions of federal agencies are constrained by a mix of substantive and procedural laws. Organic statutes specify the factors agencies are required or allowed to consider in making decisions; administrative

procedures are prescribed by the governing organic statute¹ or the Administrative Procedure Act (“APA”).² On occasion, Congress has supplemented the factors agencies are required to consider and the procedures they must follow in cross-cutting statutes applicable to all federal agencies. Concerns about agency bias or indifference towards issues outside their areas of expertise have prompted passage of such statutes.³ Numerous presidential executive orders beginning in the 1970s have augmented administrative procedures further with requirements for a variety of economic cost-benefit analyses.⁴

The National Environmental Policy Act (“NEPA”) established the legal framework for this form of enhanced administrative procedure.⁵ NEPA procedures forced reluctant agencies to consider the adverse environmental effects of their decisions,⁶ and over time it has attained a “quasi-constitutional status as one of the foundational laws of the modern administrative state.”⁷

1. *See, e.g.*, Clean Air Act, 42 U.S.C. § 7607(d) (2012).

2. 5 U.S.C. §§ 551–559 (2012).

3. *See, e.g.*, Small Business Regulatory Enforcement Fairness Act of 1996, Pub. L. No. 104-121, §§ 201–253, 110 Stat. 857, 857–74 (requiring agencies to consider the economic impact of their regulations on small businesses); Unfunded Mandates Reform Act of 1995, Pub. L. No. 104-4, 109 Stat. 48 (requiring agencies to assess the effects of federal regulatory actions on state, local, and tribal governments and the private sector).

4. *See, e.g.*, Exec. Order No. 13,563, 3 C.F.R. § 215 (2012) (cost-benefit analysis); Exec. Order No. 12,866, 3 C.F.R. § 638 (1994) (same). The APA does not require agencies to conduct a formal cost-benefit analysis. *Chamber of Commerce of the U.S. v. Hugler*, 231 F. Supp. 3d 152, 196 (N.D. Tex. 2017).

5. DANIEL R. MANDELKER ET AL., *NEPA LAW AND LITIGATION* § 13:1 (2016 ed. 2016) (describing how “[e]nvironmental assessment is an American innovation that has spread worldwide”); *see also* Lynton K. Caldwell, *Foreword* to MATTHEW J. LINDSTROM & ZACHARY A. SMITH, *THE NATIONAL ENVIRONMENTAL POLICY ACT: JUDICIAL MISCONSTRUCTION, LEGISLATIVE INDIFFERENCE, & EXECUTIVE NEGLIGENCE*, at ix, x (2001) (“[A] joint CEQ-Department of State survey found influence of the Act in at least eighty countries worldwide. This . . . clearly demonstrates that NEPA has been the most widely emulated statute ever enacted by the U.S. Congress.”); Mathew Cashmore et al., *The Role and Functioning of Environmental Assessment: Theoretical Reflections Upon an Empirical Investigation of Causation*, 88 J. ENVTL. MGMT. 1233, 1233 (2008) (describing environmental assessment, beginning with NEPA, as institutionalized in more than one hundred countries).

6. NEPA requires any federal action with a potential to “significantly affect” the environment to be reviewed in an environmental impact statement, which must include a detailed assessment of a proposed action’s environmental impacts and potential alternatives that could reasonably mitigate them. 42 U.S.C. § 4332(2)(C) (2012).

7. Bradley C. Karkkainen, *Whither NEPA?*, 12 N.Y.U. ENVTL. L.J. 333, 333–34 (2004) (claiming that the duty to prepare an Environmental Impact Statement (“EIS”) “is as fundamental to contemporary administrative practice as an agency’s duty under the Administrative Procedure Act (APA) to provide notice and opportunity for public comment prior to issuing rules” (footnote omitted)); *cf.* Thomas W. Merrill, *Capture Theory and the Courts: 1967–1983*, 72 CHI.-KENT L. REV. 1039, 1039–40 (1997) (characterizing the APA as a “framework” statute whose “rather

This prominence has made NEPA a lightning rod for criticism that its procedures and associated litigation needlessly increase costs and delays in agency programs.⁸ Yet, within a decade of its passage, conservative legislators used NEPA as a template for procedural reforms built around enhanced regulatory impact reviews.⁹ More recently, the Trump Administration has embraced this approach in a slew of executive orders purportedly designed to reduce the costs of regulation,¹⁰ and Congress is working on parallel legislation that would dramatically expand the requirements for regulatory impact reviews and the opportunities to challenge them in court.¹¹ These developments make NEPA a uniquely valuable subject for evaluating the impacts of augmented administrative procedures and the influence of judicial review.

This Article presents an empirical study of NEPA litigation during the administrations of President George W. Bush and President Barack Obama

spare” provisions have generated a “common law of administrative procedure,” and noting that judicial interpretation of NEPA imposed “a powerful general constraint on agency actions affecting the environment”); Gillian E. Metzger, *Ordinary Administrative Law as Constitutional Common Law*, 110 COLUM. L. REV. 479, 481 (2010) (discussing how procedural law can attain a quasi-constitutional status).

8. See MANDELKER ET AL., *supra* note 5, § 11:2 (referring to those criticizing “the dangers of excessive zeal” in NEPA’s enforcement). Others criticized NEPA as too weak, noting the absence of any substantive component to its obligations. See, e.g., Joseph L. Sax, *The (Unhappy) Truth About NEPA*, 26 OKLA. L. REV. 239, 248 (1973) (noting that authorities would choose the methods that they would see fit “whether or not there is a NEPA and whether or not courts require them to file elaborate, multi-volume impact statements”); see also LINDSTROM & SMITH, *supra* note 5, at 127 (noting that one leading economist commented that “[t]he principle effect [of NEPA] has been to slow passage of new legislation, the enactment of agency decisions, and the commencement of private-sector projects” and that the “impact statements are so voluminous that no one considers or even reads them, much less attempts to modify decisions on the basis of their findings”).

9. ROBERT L. GLICKSMAN & RICHARD E. LEVY, *ADMINISTRATIVE LAW: AGENCY ACTION IN LEGAL CONTEXT* 382 (2d ed. 2015); SIDNEY A. SHAPIRO & ROBERT L. GLICKSMAN, *RISK REGULATION AT RISK: RESTORING A PRAGMATIC APPROACH* 130 (2003) (arguing that economic impact analysis laws focus on “the potential deleterious effects of [environmental] regulation on economic development and other important considerations”).

10. E.g., Exec. Order No. 13,789, *Identifying and Reducing Tax Regulatory Burdens*, 82 Fed. Reg. 19,317 (Apr. 21, 2017) (requiring review of significant tax regulations that impose an undue financial burden on United States taxpayers, add undue complexity to the Federal tax laws, or exceed the statutory authority of the Internal Revenue Service); Exec. Order No. 13,777, *Enforcing the Regulatory Reform Agenda*, 82 Fed. Reg. 12,285 (Feb. 24, 2017) (requiring evaluation of existing regulations to identify those that eliminate jobs, inhibit job creation, are outdated or unnecessary, impose costs that exceed benefits, or are inconsistent with regulatory reform initiatives); Exec. Order No. 13,771, *Reducing Regulation and Controlling Regulatory Costs*, 82 Fed. Reg. 9,339 (Jan. 30, 2017) (requiring reduction of costs from existing regulations as a prerequisite to issuance of new regulations).

11. See, e.g., *Regulatory Accountability Act*, S. 951, 115th Cong. § 3(3) (2017).

that refutes the most critical views of the law. We find little evidence that litigation under NEPA is out of control or that NEPA processes are overly burdensome. To the contrary, environmental reviews and procedures conducted under NEPA are typically circumscribed and rarely challenged in court. Roughly 99% of the many thousands of federal actions with potentially significant environmental impacts are covered either by categorical exclusions to NEPA procedures or by environmental assessments, which are typically much shorter than environmental impact statements (“EIS”).¹² By contrast, yearly completions of detailed EISs now consistently fall below 200 nationally.¹³ To put this in perspective, on average fewer than 100 NEPA cases are filed in district court annually, roughly half of which involve challenges to EISs.¹⁴ A tiny fraction of environmental reviews under NEPA therefore either require detailed EISs or are subject to judicial challenges that have the potential to cause significant delays in federal programs.

Studying litigation under NEPA provides insights into the potential variation in NEPA compliance across federal agencies and the impact of judicial review. At minimum, litigation highlights the issues and agencies that receive the most public attention, the ways in which NEPA procedures tend to fall short, and the procedures that provide stakeholders with effective mechanisms for challenging federal action. NEPA litigation, in part because it involves challenges that do not arise under an agency’s organic statute, also provides a less deferential context for assessing the impacts of judicial review and the influence of judicial ideology on case outcomes.¹⁵ Further, by extending the study over two presidential administrations with starkly different environmental agendas, we are able to evaluate how NEPA litigation and judicial review change in response to shifts in executive branch policies.

Our data reveal striking disparities in the number of NEPA cases filed against federal agencies, the geographic distribution of cases across circuits,

12. Federal agencies annually conduct hundreds of EISs, tens of thousands of abbreviated environmental assessments, and hundreds of thousands of routine determinations that environmental impacts of a proposed action are insignificant. *See NEPA Litigation: CEQ Reports*, NEPA.GOV, <https://ceq.doe.gov/ceq-reports/litigation.html> (last visited Jan. 24, 2018).

13. *See* discussion *infra* Part I.A.

14. *See* discussion *infra* Part I.A.

15. *See* James V. DeLong, *New Wine for a New Bottle: Judicial Review in the Regulatory State*, 72 VA. L. REV. 399, 417 (1986) (“The courts are most comfortable when assessing the procedural regularity of agency action.”); Steven Stark & Sarah Wald, *Setting No Records: The Failed Attempts to Limit the Record in Review of Administrative Action*, 36 ADMIN. L. REV. 333, 361 (1984) (claiming that courts in administrative law cases tend to enforce procedural mandates more strongly than substantive requirements).

and the types of plaintiffs. While one would not expect NEPA litigation to be evenly spread across federal agencies given their divergent missions, we find that two-thirds of NEPA cases were filed against just five agencies, each of which either manages federal lands or has principal authority over protecting natural resources.¹⁶ Notably absent from this list are agencies that fund or permit major infrastructure, such as the Federal Highway Administration (“FHWA”), and agencies with authority over major federal facilities, such as the Department of Defense and the Department of Energy. The geographic distribution of NEPA litigation is also skewed, with roughly 50% of the district court and circuit cases filed in the Ninth Circuit alone and another 25% in the D.C., Sixth, and Tenth Circuits.

For most agencies in most states, the patterns of litigation suggest that the public engagement and oversight required by NEPA are likely to be modest, particularly given that the vast majority of environmental reviews under NEPA have a very limited scope. Important exceptions can of course arise—the Keystone and Dakota Access pipelines come to mind—but it would be a mistake to infer that these cases are in any way representative of NEPA processes generally. In part due to the paucity of data, we worry that this is precisely what NEPA’s critics are doing—generalizing from a few high-profile, unrepresentative cases. While litigation data are also selective,¹⁷ they have at least two virtues—they highlight federal actions of significant importance to stakeholders and recurring legal claims. Thus, while our litigation data are not representative of “typical” NEPA processes, they provide insights into the contexts in which NEPA procedures have heightened importance and the federal agencies likely to be most impacted by them.

Across the two administrations, we observe dramatic differences in the degree to which judicial ideology influences the outcome of judicial review of agency compliance with NEPA.¹⁸ In district courts, plaintiffs were 2.8

16. The five federal agencies are the U.S. Forest Service (“USFS”), Bureau of Land Management (“BLM”), U.S. Fish & Wildlife Service (“FWS”), National Marine Fisheries Service (“NMFS”), and U.S. Army Corps of Engineers (“USACE”). Among these agencies, the USFS and BLM accounted for approximately 50% of the district court cases.

17. See, e.g., George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 4 (1984) (“[P]otential litigants form rational estimates of the likely decision, whether it is based on applicable legal precedent or judicial or jury bias. . . . [D]isputes selected for litigation . . . will constitute neither a random nor a representative sample of the set of all disputes.”).

18. A recent study finds increasing polarization of the decisions of federal district judges based on the party of the appointing President. The study attributes this trend to a shift of appointees of Republican presidents in a conservative direction. The study also finds, however, that the political polarization of district court judges is less marked than it is for federal appellate

times more likely to prevail during the Bush Administration than during the Obama Administration, 2.5 times more likely to prevail in the Ninth Circuit than other circuits, and almost twice as likely to prevail before a district judge appointed by a Democratic president as one appointed by a Republican.¹⁹ At the appellate level, plaintiffs were about 2.3 times more likely to prevail in the Ninth Circuit, but the influence of presidential politics and judicial ideology were not statistically significant factors in case outcomes. One reason for this result was that the absolute differences in case outcomes associated with judicial ideology were much smaller during the Obama Administration. For example, in appellate cases plaintiffs prevailed at much higher rates before Democratic-majority than Republican-majority panels during the Bush Administration (38% versus 17%, respectively), but this disparity essentially disappeared during the Obama Administration.

These results reveal that tensions between the environmental mandate of NEPA and conservative presidential politics exacerbated the influence of ideological differences between Democratic- and Republican-appointed judges. We identify a novel structural explanation for this phenomenon: During a Republican administration, Republican judges will be sympathetic to the administration and unsympathetic to the liberal goals of NEPA (both factors aligning *against* environmental plaintiffs), whereas Democratic judges will be sympathetic to the goals of NEPA but unsympathetic to the administration (both factors aligning *in favor* of environmental plaintiffs). By contrast under a Democratic administration, Republican judges will be unsympathetic to NEPA's goals and to the administration (both factors essentially neutral towards environmental plaintiffs), whereas Democratic judges will be sympathetic to both (one factor favoring and the other working against environmental plaintiffs). In short, the political ideology of judges has the greatest influence on judicial review when the goals of the statute under review are at odds with the politics of the presidential administration in power.

These results broaden the range of factors that influence the outcome of judicial review. While excellent studies exist on the influence of judicial ideology, including the more complex dynamics of three-judge appellate

court judges and that it “pales in comparison to the gap one finds for parallel issues in the U.S. Congress.” Herbert M. Kritzer, Robert A. Carp & Kenneth L. Manning, *Polarization in American Politics: Does It Extend to the Federal District Court?* 22 (July 21, 2017) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3007983.

19. These results are based on logistic regressions discussed in detail below. *See* discussion *infra* Part II.B.

panels,²⁰ to our knowledge no studies have evaluated it across presidential administrations with widely divergent policies. NEPA litigation provides a uniquely valuable context for evaluating these dynamics due to the concentration of cases in a handful of circuits. In particular, the 50% of cases filed in the Ninth Circuit makes it much easier for statistical methods to detect the influence of its majority Democratic-appointed appellate judges both directly through the large volume of appellate cases and indirectly through their influence on district court judges in the Ninth Circuit, who, irrespective of their political affiliation, ruled in favor of plaintiffs at much higher rates than district judges in other circuits.

The Article proceeds as follows: Part I describes the legal framework for environmental reviews under NEPA, discusses the limited information that is available on agency compliance with NEPA, and examines the existing empirical literature on NEPA litigation. Part II describes the details of the empirical studies we conducted, presents the descriptive statistics for the studies of district court and appellate cases, and discusses the results of several logistic regressions and other statistical analyses of the data. Part III concludes with a discussion of the implications for NEPA procedures and policies and the role of ideology in judicial review of agency action. The normative and practical implications of our findings are explored by comparing NEPA with the expanding array of legal mandates found in recent executive orders and pending legislation in Congress that augment required economic impact analyses. Ironically, the same political forces seeking to curtail NEPA obligations based on their costs and associated delays are simultaneously promoting the expansion of regulatory impact reviews. We show that the inflexibility of the proposed reforms in conjunction with the politics of judicial review have a much greater potential to increase costs and to cause serious delays in agency action.

I. THE NEPA FRAMEWORK IN PRACTICE

The emergence of the modern era of environmental law is commonly associated with President Nixon's nationally televised signing of NEPA into

20. See, e.g., Thomas J. Miles & Cass R. Sunstein, *Do Judges Make Regulatory Policy? An Empirical Investigation of Chevron*, 73 U. CHI. L. REV. 823, 827 (2006); Richard L. Revesz, *Environmental Regulation, Ideology, and the D.C. Circuit*, 83 VA. L. REV. 1717, 1719–20 (1997); Matthew Spitzer & Eric Talley, *Left, Right, and Center: Strategic Information Acquisition and Diversity in Judicial Panels*, 29 J.L. ECON. & ORG. 638, 639 (2013); Cass R. Sunstein et al., *Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation*, 90 VA. L. REV. 301, 305–08 (2004).

law on January 1, 1970.²¹ In part because of its groundbreaking beginning, NEPA is often referred to as the Magna Carta of environmental law;²² it set the stage for a period of unparalleled legislative reforms by articulating a set of broad goals for environmental policy and establishing a procedural framework for rigorous environmental reviews of any federal action with the potential to significantly impact the environment.²³

NEPA has had a profound impact on the consciousness of environmental issues within the federal government, and its trademark framework for environmental reviews has been widely adopted by countries around the world.²⁴ NEPA is also the forerunner of other cross-cutting forms of administrative procedure, such as the Regulatory Flexibility Act (“RFA”),²⁵ Unfunded Mandates Reform Act of 1995 (“UMRA”),²⁶ and Paperwork Reduction Act (“PRA”),²⁷ that augment the APA’s basic requirements by requiring agencies engaged in rulemaking to prepare economic-oriented regulatory impact analyses. Similar to the APA, NEPA is government-wide in scope and consequently subjects thousands of federal actions each year to environmental reviews.²⁸ The strategic value of NEPA to stakeholders who oppose or have concerns about proposed federal actions stems from this broad scope, the capacity of NEPA procedures to delay and draw public attention to federal actions, and the potential for the information its environmental reviews generate to provide grounds for halting or modifying projects that would otherwise pose significant threats to human health or the environment.

In large part because of negative perceptions about aggressive litigation practices, fundamental disagreements exist among policymakers and

21. Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321, 4331–35, 4341–47 (2012)). For a transcript of Nixon’s remarks, see Gerhard Peters & John T. Woolley, *Remarks on Signing the National Environmental Policy Act of 1969*, AM. PRESIDENCY PROJECT (Jan. 1, 1970), <http://www.presidency.ucsb.edu/ws/?pid=2446>.

22. Michael C. Blumm & Marla Nelson, *Pluralism and the Environment Revisited: The Role of Comment Agencies in NEPA Litigation*, 37 VT. L. REV. 5, 5 (2012); Shorna R. Broussard & Bianca D. Whitaker, *The Magna Charta of Environmental Legislation: A Historical Look at 30 Years of NEPA—Forest Service Litigation*, 11 FOREST POL’Y & ECON. 134, 134 (2009).

23. NEPA’s environmental goals were defined broadly to include “promot[ing] efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man” and “attain[ing] the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.” 42 U.S.C. §§ 4321, 4331(b)(3) (2012).

24. See sources cited *supra* note 5.

25. 5 U.S.C. §§ 601–612 (2012).

26. 2 U.S.C. §§ 658, 1501–1504, 1511–1516, 1531–1538, 1551–1556, 1571 (2012).

27. 44 U.S.C. §§ 3501–3520 (2012).

28. See discussion *infra* Part II.B.

observers about the value of NEPA procedures. These conflicting perspectives have been aptly summarized by Michael Blumm, a prominent academic commentator:

NEPA seems to be a statute with two lives: part “paper tiger,” part “procedural straightjacket”; apparently too vague to give courts authority to reverse agency actions for conflicting with its policies, but still capable of inducing court injunctions when agencies fail to satisfy its procedures. This process-laden approach to environmental policymaking has both critics and defenders, but both seem to agree that what reviewing courts think NEPA requires of agencies is not predictable.²⁹

In essence, the debate over NEPA turns on disparate views about the burdens that its procedures impose on federal agencies and the benefits of those procedures derived from better-informed agency decision-making. Critics claim that NEPA reviews have ossified into rote processes with little added value and that any potential benefits are more than offset by the time delays and costs associated with conducting them.³⁰ Supporters counter that most environmental reviews—which they claim involve limited procedures and brief assessments—are conducted quickly (a few weeks or less) and cheaply.³¹ They maintain further that NEPA is essential to ensuring that all federal agencies, particularly those inclined to pursue their missions without

29. Michael C. Blumm & Stephen R. Brown, *Pluralism and the Environment: The Role of Comment Agencies in NEPA Litigation*, 14 HARV. ENVTL. L. REV. 277, 279 (1990) (footnotes omitted).

30. See, e.g., Eugene Bardach & Lucien Pugliaresi, *The Environmental-Impact Statement vs. The Real World*, 49 PUB. INT. 22, 26–28 (1977) (case study of the Department of the Interior); William W. Hill & Leonard Ortolano, *NEPA’s Effect on the Consideration of Alternatives: A Crucial Test*, 18 NAT. RESOURCES J. 285, 308 (1978) (NEPA’s requirement to consider alternatives had only a cosmetic effect on the water resources projects of the Soil Conservation Service and the Corps of Engineers).

31. See *Introduction to U.S. GEN. ACCOUNTABILITY OFF., GAO-14-369, LITTLE INFORMATION EXISTS ON NEPA ANALYSIS* (2014) [hereinafter GAO] (“[Environmental assessments] and [categorical exclusions] generally cost less than EISs, according to CEQ and federal agencies.”); Jeffrey A. Berger, *False Promises: NEPA’s Role in Airport Expansions and the Streamlining of the Environmental Review Process*, 18 J. ENVTL. L. & LITIG. 279, 286 (2003) (“The [environmental assessment] process thus serves as a ‘quick look’ for the agency to determine whether a full EIS is needed.”); Sally K. Fairfax, *A Disaster in the Environmental Movement*, 199 SCIENCE 743, 745 (1978); Matthew J. Lindstrom, *Procedures Without Purpose: The Withering Away of the National Environmental Policy Act’s Substantive Law*, 20 J. LAND RES. & ENVTL. L. 245, 249, 251 (2000); John Ruple & Mark Capone, *NEPA, FLPMA, and Impact Reduction: An Empirical Assessment of BLM Resource Management Planning and NEPA in the Mountain West*, 46 ENVTL. L. 953, 976 (2016) (conducting a study of impact of NEPA on BLM land use planning and concluding that NEPA is capable of producing significant reductions in environmental impacts without incurring a commensurate economic cost).

regard to the health or environmental consequences, adequately consider and take into account the potential impacts of their actions.³²

Perhaps more than its authors anticipated, NEPA has figured prominently in many of the most important environmental disputes and cases over the last forty years. The potential it held for strategic delay was exploited within a year of NEPA's passage when a group of environmentalists filed a NEPA suit to enjoin construction of the infamous Tellico Dam, which was poised to engulf the Little Tennessee Valley and to destroy one of the last free-flowing rivers in the region.³³ The NEPA suit ultimately delayed the project and gave the plaintiffs time to initiate a second suit under the Endangered Species Act, *Tennessee Valley Authority v. Hill*,³⁴ which remains one of the seminal cases in environmental law.³⁵ This early victory for environmentalists is just one example among many that could be cited. NEPA lawsuits have been filed challenging a wide range of federal activities, including management of public lands (grazing,³⁶ oil and gas development,³⁷ mining,³⁸ and forestry³⁹), funding and permitting of major infrastructure (highways,⁴⁰ power lines,⁴¹ pipelines,⁴² and airports⁴³), remediation and disposal of toxic or nuclear waste,⁴⁴ and operation of major military readiness testing and training exercises, ranges, and other programs.⁴⁵ NEPA procedures and litigation

32. Proponents argue that NEPA compels agency managers to “[t]hink more carefully about the environment before acting,” focusing their attention on environmental consequences that otherwise might not have come to their attention. Bradley C. Karkkainen, *Toward A Smarter NEPA: Monitoring and Managing Government's Environmental Performance*, 102 COLUM. L. REV. 903, 910 (2002) (alteration in original) (quoting SERGE TAYLOR, MAKING BUREAUCRACIES THINK: THE ENVIRONMENTAL IMPACT STATEMENT STRATEGY OF ADMINISTRATIVE REFORM 5 (1984)).

33. MARC REISNER, CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER 335–37 (1986).

34. 437 U.S. 153 (1978).

35. REISNER, *supra* note 33, at 337–38.

36. *E.g.*, NRDC v. Morton, 388 F. Supp. 829, 831 (D.D.C. 1974), *aff'd per curiam*, 527 F.2d 1386 (D.C. Cir. 1976) (unpublished table decision).

37. *E.g.*, Sierra Club v. Peterson, 717 F.2d 1409, 1410 (D.C. Cir. 1983).

38. *E.g.*, N. Alaska Envtl. Ctr. v. Lujan, 961 F.2d 886, 887 (9th Cir. 1992).

39. *E.g.*, Thomas v. Peterson, 753 F.2d 754, 756 (9th Cir. 1985).

40. *E.g.*, Catawaba Riverkeeper Found. v. N.C. Dep't of Transp., 843 F.3d 583, 585 (4th Cir. 2016).

41. *E.g.*, Citizens & Landowners Against the Miles City/New Underwood Powerline v. Sec'y, U.S. Dep't of Energy, 683 F.2d 1171, 1172–73 (8th Cir. 1982).

42. *E.g.*, Sierra Club v. U.S. Forest Serv., 828 F.3d 402, 404 (6th Cir. 2016).

43. *E.g.*, Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 191 (D.C. Cir. 1991).

44. *E.g.*, Coal. on W. Valley Nuclear Wastes v. Chu, 592 F.3d 306, 309 (2d Cir. 2009).

45. *E.g.*, Winter v. NRDC, 555 U.S. 7, 12 (2008).

continue to provide important opportunities for public engagement and agency oversight throughout the federal government.

A. Overview of NEPA Procedures

Congress described NEPA's mandate as "protect[ing] public health, safety and environmental quality by ensuring transparency, accountability and public involvement in federal actions and in the use of public funds."⁴⁶ Senator Henry Jackson, NEPA's principal drafter, characterized its objectives in similarly expansive terms:

What is involved [in NEPA] is a . . . declaration that we do not intend, as a government or as a people, to initiate actions which endanger the continued existence or the health of mankind: That we will not intentionally initiate actions which will do irreparable damage to the air, land, and water which support life on earth.⁴⁷

These ambitions are at odds with the statute's relative simplicity and the nature of the mandates it creates. As interpreted by the Supreme Court, NEPA is an entirely procedural statute.⁴⁸ Functionally, NEPA forces agencies to integrate consideration of environmental impacts into their decision-making processes (the so-called "stop and think" function) and to disclose the results of that analysis to others, including Congress and the public.⁴⁹ At base, NEPA is premised on generating information to enable agencies to identify alternatives to proposed actions that would accomplish agency objectives with fewer adverse environmental effects.⁵⁰ A federal agency proposing a "major federal action" must evaluate whether it will have significant effects on human health or the environment (broadly construed) and, if so, prepare

46. American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 1609(a)(1), 123 Stat. 115, 304. It added that NEPA "helps to provide an orderly process for considering federal actions and funding decisions and prevents litigation and delay that would otherwise be inevitable and existed prior to the establishment of the National Environmental Policy Act." *Id.* § 1609(a)(3).

47. 115 CONG. REC. 40,416 (1969) (statement of Sen. Jackson).

48. *Strycker's Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227–28 (1980).

49. *See Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (asserting that NEPA "ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audience that may also play a role in . . . the decisionmaking process").

50. The Council on Environmental Quality ("CEQ"), which NEPA created, describes the analysis of alternatives (and their comparative environmental effects) as "the heart of" an EIS. 40 C.F.R. § 1502.14 (2017).

an EIS analyzing the impacts and considering the relative merits of alternative actions.⁵¹ In many cases, this initial review entails undertaking an abbreviated analysis, referred to as an “environmental assessment” (“EA”), to ascertain whether the environmental impacts of a proposed action have the potential to be significant.⁵² For more routine federal actions, which neither individually nor collectively have the potential to be environmentally significant, agencies can designate them under “categorical exclusions” (“CE”) to be exempt from NEPA procedures. As described below, the vast majority of NEPA compliance is covered by CEs and EAs; preparation of EISs is the exception rather than the rule.

To enable independent oversight of NEPA compliance, Congress established a new federal office, the Council on Environmental Quality (“CEQ”), that is based in the White House.⁵³ The CEQ has issued regulations specifying how agencies must comply with NEPA, such as defining the range of environmental effects that must be considered.⁵⁴ NEPA procedures have been augmented over time through subsequent legislative amendments and regulatory amendments.⁵⁵ The Clean Air Act, for example, now requires the Environmental Protection Agency (“EPA”) to review and comment on all EISs.⁵⁶ The added procedures, EPA reviews, and continuing CEQ oversight provide valuable checks on the quality of the environmental reviews agencies conduct and the degree of their compliance with NEPA procedures, but the level of scrutiny and support for NEPA varies substantially according to the priorities of each presidential administration.

The primary responsibility for implementing NEPA ultimately rests with the federal agencies that are subject to its procedures. Similar to compliance with the APA,⁵⁷ we expected for this reason that compliance with NEPA would vary substantially across federal agencies despite the oversight from CEQ and EPA. Absent the threat of litigation, federal agencies proposing major actions practically have final say over their compliance with NEPA.

51. 42 U.S.C. § 4332(C) (2012).

52. If an agency finds that they are insignificant, it issues a “finding of no significant impact” (“FONSI”) and its NEPA responsibilities end. 40 C.F.R. § 1508.13 (2017).

53. See 42 U.S.C. § 4344 (2012) (setting forth the CEQ’s duties and functions).

54. 40 C.F.R. § 1508.8(b) (2017).

55. Congress has also exempted certain agency actions from NEPA or watered down the statute’s procedural requirements. See, e.g., Healthy Forests Restoration Act of 2003, Pub. L. No. 108-148, 117 Stat. 1887 (codified at 16 U.S.C. §§ 6501–6591 (2012)).

56. 42 U.S.C. § 7609(a) (2012).

57. See Kristin E. Hickman, *Agency-Specific Precedents: Rational Ignorance or Deliberate Strategy?*, 89 TEX. L. REV. SEE ALSO 89, 90 (2011); Richard E. Levy & Robert L. Glicksman, *Agency-Specific Precedents*, 89 TEX. L. REV. 499, 507–08 (2011).

Recognizing the limits of CEQ and EPA oversight, critics of agency compliance with NEPA have charged that “the gap between the purpose and practice of NEPA and the failure of environmental agencies to regulate fairly so as to protect public health and the environment has created a dissonance between the law stated and its operation in the real world.”⁵⁸ In this light, litigation is essential to ensuring that federal agencies, especially those with development-oriented missions, comply fully with NEPA’s procedural mandates.

B. The Limited Understanding of NEPA Compliance

Empirical studies of NEPA have provided important insights into the frequency of environmental reviews, variation in compliance patterns within and across federal agencies, and the nature of litigation under the statute. However, much of this work has focused on relatively short periods of time or specific agencies and only one study has examined the influence of ideology in judicial review.⁵⁹ Given the critiques of NEPA procedures as productive of unwarranted delays, we will focus initially on the studies of NEPA compliance, which provide a broader context for evaluating the impact of litigation, and studies that focus on the distribution and frequency of litigation under NEPA.

A central challenge for empirical studies of NEPA compliance is the paucity of data available. Federal agencies typically do not record the number of CEs or EAs they issue, despite the fact that most agency compliance with NEPA is covered by them.⁶⁰ The estimates that do exist find that roughly 95% of NEPA decisions fall under CEs,⁶¹ about 5% are covered by EAs, and less than 1% are reviewed under EISs.⁶² If one includes draft, supplemental, and

58. James S. Freeman & Rachel D. Godsil, *The Question of Risk: Incorporating Community Perceptions into Environmental Risk Assessments*, 21 *FORDHAM URB. L.J.* 547, 558 (1994).

59. JAY E. AUSTIN ET AL., *JUDGING NEPA: A “HARD LOOK” AT JUDICIAL DECISION MAKING UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT* 1, 1–2 (2004).

60. U.S. GOV’T ACCOUNTABILITY OFF., *GAO-14-370, NATIONAL ENVIRONMENTAL POLICY ACT: LITTLE INFORMATION EXISTS ON NEPA ANALYSES* 7 (2014) [hereinafter *GAO*].

61. The Government Accountability Office (“GAO”) noted, however, that the Department of Energy (“DOE”) “and the Forest Service officials told us that CEs are likely underrepresented in their totals because agency systems do not track certain categories of CEs considered ‘routine’ activities, such as emergency preparedness planning.” *Id.* at 8–9. Under some agency regulations, the application of a CE need not be memorialized in a record of decision.

62. *Id.* at 8. These are crude estimates and there is clearly variation by agency. The numbers are drawn from experience with specific agencies. For example, “[DOE] reported that 95 percent of its 9,060 NEPA analyses from fiscal year 2008 to fiscal year 2012 were CEs, 2.6 percent were EAs, and 2.4 percent were EISs or supplement analyses.” *Id.* Similarly, the FHWA also reported

final NEPA documents government-wide, this estimate translates into the preparation of an average of roughly 137,750 CEs, 6,820 EAs, and about 435 EISs annually for the period 2008 through 2015.⁶³ However, significant inter-agency variability exists.⁶⁴ For the period 2008 through 2015, EPA data reveal that the actual number of EISs issued each year is consistent with this estimate, averaging 224 draft and 211 EISs per year, but the number of final EISs declined over this period from a high of 277 in 2008 to about 190 by 2014 and 2015.⁶⁵ Currently, the number of final EISs issued annually appears to have settled in the range of 185 to 200.⁶⁶

Studies of NEPA processes find that a relatively small number of federal agencies account for most of the environmental reviews. According to EPA and CEQ data for the period 1998 through 2015, four federal agencies issued more than 50% of the EISs published nationally: on average for this period the USFS accounted for 24%, the BLM accounted for 8%, the USACE accounted for 10%, and the FHWA accounted for 12%.⁶⁷ The EPA data also reveal that thirty-six other federal agencies issued at least one EIS per year over the period 2012 through 2015, with the National Park Service (“NPS”) and the FWS accounting for another 10% of the EISs issued, and the Federal

that approximately 96% of highway projects were processed as CEs in 2009. *Id.*; cf. LINDA LUTHER, CONG. RESEARCH SERV., R42479, THE ROLE OF THE ENVIRONMENTAL REVIEW PROCESS IN FEDERALLY FUNDED HIGHWAY PROJECTS: BACKGROUND AND ISSUES FOR CONGRESS 5 (2012), http://environment.transportation.org/pdf/proj_delivery_stream/crs_report_envrev.pdf (reporting that 96% of FHWA-approved projects “involve no significant environmental impacts and, hence, require limited documentation, analysis, or review under NEPA”).

63. GAO, *supra* note 60, at 9 (the calculation is based on an extrapolation from the percentages for each NEPA process using the number of EISs issued by federal agencies in 2011). For further comparison, CEQ was required to collect and issue a report on NEPA compliance in 2009. *See* American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 1609(c), 123 Stat. 115, 304 (2009); *American Recovery and Reinvestment Act of 2009 & NEPA*, NEPA.GOV, https://ceq.doe.gov/ceq-reports/recovery_act_reports.html. For most federal agencies, CEs represented 86% of their NEPA compliance, while EAs and EISs were prepared for 17% and 3%, respectively, of the government actions. *Id.*

64. For example, the USFS has reported that 78% of the 14,574 NEPA analyses it conducted from 2008 through 2012 were CEs, 20% were EAs, and 2% were EISs. GAO, *supra* note 60, at 8.

65. EPA data were downloaded from the EIS Database for the period January 1, 2012 through December 31, 2015, which is available at *Environmental Impact Statement (EIS) Database*, EPA, <https://cdxnodengn.epa.gov/cdx-enepa-public/action/eis/search> (last visited Mar. 15, 2018) [hereinafter EPA EIS Database]. These results are roughly consistent with other work finding that EPA reported 253 (standard deviation of twenty-six) EISs annually during the period 1987 through 2006. Piet deWitt & Carole A. deWitt, *How Long Does It Take to Prepare an Environmental Impact Statement*, 10 ENVTL. PRAC. 164, 171 (2008).

66. The number of EISs issued annually was derived from the EPA EIS database, *supra* note 65.

67. GAO, *supra* note 60, at 11; EPA EIS Database, *supra* note 65.

Energy Regulatory Commission (“FERC”) rising in prominence starting in 2015 when it began issuing roughly the same number of EISs each year as the FWS.⁶⁸

Cost and timing data for NEPA analyses are also difficult to obtain.⁶⁹ In 2003, a NEPA task force report “estimated that an EIS typically cost [sic] from \$250,000 to \$2 million,” whereas “an EA typically costs from \$5,000 to \$200,000.”⁷⁰ The National Association of Environmental Professionals (“NAEP”) collects data on the time it takes for EISs to be completed.⁷¹ In a report covering the time period 2000 through 2012, it found that the average preparation time was 4.6 years in 2012 and that EIS preparation times had increased on average at a rate of thirty-four days per year.⁷² In another survey covering twenty years (1987–2006), the average time for agencies to prepare an EIS was 3.4 years, with a standard deviation of 2.7 years and a strikingly broad range of fifty-one days to 18.4 years.⁷³ This study also found significant differences among federal agencies, with the FHWA and USACE having mean preparation times that were 1.9 and 1.26 times longer, respectively, than the average for other federal agencies.⁷⁴ Large differences therefore exist in preparation times for EISs both within and among federal agencies.⁷⁵

68. The U.S. Navy, Nuclear Regulatory Commission, Federal Transit Administration, Bureau of Reclamation, National Oceanic & Atmospheric Administration, and Department of Energy each accounted for between 2% and 3% of the EISs issued from 2012 through 2015 according to the EPA data. EPA EIS Database, *supra* note 65.

69. GAO, *supra* note 60, at 12.

70. *Id.* at 13–14. DOE collects some of the most detailed information on costs. For the period 2003 through 2012, it found that the median cost of an EIS was \$1.4 million and the average \$6.6 million, with costs ranging from a low of \$60,000 to a high of \$85 million; it also estimated that the median cost of an EA is \$65,000, with a range from \$3,000 to \$1.2 million. *Id.* at 13.

71. NAEP, ANNUAL NEPA REPORT 2012 OF THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PRACTICE 11–17 (2013), https://ceq.doe.gov/docs/get-involved/NAEP_2012_NEPA_Annual_Report.pdf.

72. *Id.* Less information is available on EAs. According to a 2013 DOE report, the average completion time for an EA issued by DOE was thirteen months; by contrast, the average for the USFS was about nineteen months in 2012. GAO, *supra* note 60, at 15–16. Even less information is collected on CEs, but rough estimates exist that range from typical times of 1–2 days within DOE to 177 days within the USFS. *Id.* at 16.

73. DeWitt & deWitt, *supra* note 65, at 167.

74. The average for other federal agencies (excluding the USFS which was slightly lower) was 2.9 years (standard deviation of two years), whereas the average for the FHWA was 5.5 years (standard deviation of 3.2 years) and the average for USACE was 3.7 years (standard deviation of 2.4 years). *Id.*

75. The FHWA is an extreme outlier among federal agencies (completing less than 10% of its EISs in two years or less), while the USFS managed to prepare more than half of its EISs in two years or less. *Id.* at 169.

Studies on the benefits of NEPA processes are even more limited and to the extent they exist are largely impressionistic. According to a 2015 GAO report, the principal benefits are enhanced transparency of agency decision-making, increased public participation, early discovery and mitigation of environmental impacts associated with a proposed federal action,⁷⁶ improvement of projects based on better or more complete environmental information, and at least in some cases time savings from project improvements identified through the NEPA process.⁷⁷ The study found it exceedingly difficult to monetize the benefits of NEPA processes due to the non-market nature of the resources and environmental amenities impacted.⁷⁸ The GAO also found it was difficult to allocate the costs of compliance because NEPA procedures overlap with those required under other federal laws, presidential executive orders, and state and local laws.⁷⁹ The mix of practical, methodological, and resource constraints highlight the obstacles to obtaining direct measures of both the costs and benefits of NEPA procedures.

C. The Existing Studies of NEPA Litigation

A relatively small number of government and independent studies exist on NEPA litigation.⁸⁰ Empirical studies of litigation and surveys of agency officials confirm that “most NEPA analyses do not result in litigation.”⁸¹ According to the CEQ, the number of NEPA cases filed in federal district courts was highest in the 1970s, roughly between 150 and 190 cases annually, and subsequently dropped to about 100 cases per year in the decades that followed.⁸² Data on circuit cases are more limited, with data from 2012 indicating that twenty-five to thirty cases are filed each year.⁸³ The CEQ data suggest that about half of the district court cases involved challenges to EISs and that from 2008 through 2011 federal defendants prevailed in more than

76. As Professor Karkkainen has explained, NEPA “create[s] powerful incentives for agencies to structure and characterize their activities so as to avoid the full NEPA-mandated EIS inquiry,” such as by building mitigation features into a project to lower the impacts below the significance threshold that triggers the duty to prepare an EIS. Karkkainen, *supra* note 32, at 920; *see also id.* at 935–36.

77. GAO, *supra* note 60, at 16–18.

78. *Id.* at 16.

79. *Id.* at 18–19.

80. *Id.* at 19–20.

81. *Id.* at 19.

82. *Id.* at 20.

83. *Id.*

50% of them.⁸⁴ The few studies of circuit court cases indicate that federal defendants prevail at a higher rate, with a recent report from NAEP finding that federal agencies prevailed in 86% of the appellate cases involving NEPA claims in 2012.⁸⁵

A handful of independent empirical studies exist that complement the CEQ and NAEP reports.⁸⁶ However, each is limited in one or more of the following respects: (1) the data are limited to a narrow time period; (2) the data are highly aggregated; (3) the decisions analyzed are associated with a single federal agency or court; or (4) the analysis is limited to descriptive statistics. Since 2001, the CEQ has collected some of the most valuable data on NEPA litigation. Its annual surveys provide statistics on the number of NEPA cases by federal agency, national statistics on the legal bases for each decision, and statistics on the classes of plaintiffs (i.e., public interest group, individual, business group, state or local government).⁸⁷ The CEQ data display interesting patterns, particularly variation in litigation success rates over time, but we found the coding of the cases to be subject to a number of inconsistencies and inaccuracies.

Several studies have focused on NEPA litigation against the USFS.⁸⁸ These studies provide valuable insights into litigation patterns over a period of twenty to thirty years, including changes in the geographic distribution of cases, the types of federal actions challenged, the frequency of suits by different classes of plaintiffs, the types of claims asserted by plaintiffs, and the success rates of specific claims. Other work has focused on the seventeen cases decided by the Supreme Court⁸⁹ and the influence on judicial review of comments from federal agencies other than the lead agency conducting a

84. *Id.* at 21. For example, in 2011 CEQ found that federal defendants prevailed in 68% of the cases. *Id.*

85. *Id.* at 22.

86. Earlier studies include the following: LUCINDA LOW SWARTZ, BATTELLE MEM'L INST., RECENT NEPA CASES (2004), at 1 (2004), https://ceq.doe.gov/docs/laws-regulations/NEPA_Cases_2004_NAEP_paper.pdf (noting that agencies won 60% of cases in 2004 in which there was a substantive decision on NEPA issues); Paul G. Kent & John A. Pendergrass, *Has NEPA Become a Dead Issue? Preliminary Results of a Comprehensive Study of NEPA Litigation*, 5 TEMP. ENVTL. L. & TECH. J. 11, 12 (1986) (citing statistics showing that most NEPA litigation involves challenges to agency decisions not to prepare an EIS).

87. See *NEPA Litigation*, *supra* note 12.

88. See generally Broussard & Whitaker, *supra* note 22; Amanda M.A. Miner et al., *Twenty Years of Forest Service National Environmental Policy Act Litigation*, 12 ENVTL. PRAC. 116 (2010) [hereinafter Miner et al., *NEPA Litigation*].

89. Richard J. Lazarus, *The Power of Persuasion Before and Within the Supreme Court: Reflections on NEPA's Zero for Seventeen Record at the High Court*, 2012 U. ILL. L. REV. 231.

NEPA analysis.⁹⁰ All of this work has enhanced understanding of NEPA litigation and implementation, but the information it provides remains substantially incomplete.⁹¹

The empirical studies of litigation involving the USFS are the most sophisticated and detailed. Several broad patterns emerge from this work. Consistent with other studies, the USFS led other federal agencies in the number of EISs prepared each year, averaging 147 draft and final EISs annually from 1998 through 2008.⁹² For federal cases filed against the USFS, the available studies indicated that the most common claims involved challenges to either an EA or EIS.⁹³ Given that EAs are issued much more frequently than EISs, these statistics imply that EISs are challenged at far higher rates than EAs. Geographically, more than half of the cases were filed in the Ninth Circuit,⁹⁴ which reflects at least in part the fact that over 60% of USFS lands are located in the states encompassed by it.⁹⁵ In addition, the results were mixed with respect to whether plaintiffs prevailed at different rates based on the circuit in which a NEPA suit was filed, with conflicting

90. Blumm & Nelson, *supra* note 22, at 7 (concluding that “[t]wo decades ago, agency comments explained a high percentage of the outcomes of NEPA litigation; twenty-some years later, the correlation between agency comments and case outcomes is somewhat less obvious”).

91. In particular, relatively little information exists about the case outcomes. *See, e.g.*, LINDA LUTHER, CONG. RESEARCH SERV., RL33267, THE NATIONAL ENVIRONMENTAL POLICY ACT: STREAMLINING NEPA 10 (2007), <https://fas.org/sgp/crs/misc/RL33267.pdf> (noting that in 2004, 170 NEPA-related cases were filed, but only 11 resulted in an injunction); Jim Vines, Stephanie Salek & Kelsey Desloover, *Reforming NEPA Review of Energy Projects*, KING & SPAULDING ENERGY NEWSL. (Dec. 5, 2012), <https://perma.cc/BQ9Y-ERMW> (finding that an average of twenty-four temporary restraining orders and preliminary and permanent injunctions halting projects were issued each year between 2001 and 2009).

92. Miner et al., *NEPA Litigation*, *supra* note 88, at 116.

93. Broussard & Whitaker, *supra* note 22, at 138 (finding that challenges to EAs or EISs accounted for 36% of the district court cases and 48% of the appellate cases; 55% of the district court cases and 35% of the appellate cases involved claims that an EA or EIS should have been prepared); Miner et al., *NEPA Litigation*, *supra* note 88, at 124.

94. Broussard & Whitaker, *supra* note 22, at 137 (finding that 61% of the cases were filed in the Ninth Circuit, 12% in the Tenth Circuit, and 7% in the Eighth Circuit); Miner et al., *NEPA Litigation*, *supra* note 88, at 120 (finding that 64% of cases were filed in the Ninth Circuit).

95. Denise M. Keele & Robert W. Malmshemer, *Is the Ninth Circuit a Liberal Environmental Activist Court?*, 37 JUST. SYS. J. 115, 115 (2016) (observing that the Ninth Circuit has jurisdiction over more public lands than any other federal circuit); Robert W. Malmshemer et al., *National Forest Litigation in the US Courts of Appeals*, 112 J. FORESTRY 20, 22 (2004) (observing that 63% of USFS land is located in the Ninth Circuit); Kirsten Rønholt, *Where the Wild Things Were: A Chance to Keep Alaska's Challenge of the Roadless Rule Out of the Supreme Court*, 29 ALASKA L. REV. 237, 237 n.3 (2012) (reporting that, as of 2001, almost 60% of national forest acreage (122,092,000 acres) was located in the Ninth Circuit).

findings about whether the Ninth Circuit favors plaintiffs more than other circuits.⁹⁶

The studies also find interesting patterns in the outcomes of NEPA litigation. In both district and circuit courts, environmental organizations were the most common plaintiffs, typically representing 60% to 70% of the NEPA cases filed, whereas business interests and user groups filed only about 8% of the cases.⁹⁷ Moreover, while the USFS won roughly 60% to 70% of the NEPA cases,⁹⁸ environmental organizations prevailed at higher rates than other plaintiffs.⁹⁹ Two studies also found mixed evidence that rates at which plaintiffs prevailed varied by administration, with an earlier study finding higher success rates during the Reagan Administration relative to both the George H.W. Bush and Clinton Administrations, and a later study failing to

96. Susan B. Haire, *Judicial Selection and Decision Making in the Ninth Circuit*, 48 ARIZ. L. REV. 267, 283–85 (2006) (concluding that while there is evidence that individual judges make decision on ideological grounds, the Ninth Circuit as a whole is not more liberal than other circuits); Keele & Malmshheimer, *supra* note 95, at 130 (concluding that “the Ninth Circuit was not significantly more activist than other circuits over the time period [1989–2008]”); *id.* at 131 (concluding that district courts located within the Ninth Circuit were statistically significantly more likely to reverse agency action (36.2%) than the decisions of district courts located within all other circuits (21%)); Malmshheimer et al., *supra* note 95, at 23 (finding that the USFS had the highest likelihood of prevailing in the Tenth (67%) and Eighth (71%) Circuits and the lowest in the Ninth Circuit (49%)); Amanda Miner et al., *Twenty Years of Forest Service Land Management Litigations*, 112 J. FORESTRY 32, 35 (2014) [hereinafter Miner et al., *Forest Service Litigations*] (concluding that the USFS was most successful in the Seventh Circuit (80%) and the least in the Ninth and Eleventh Circuits (48%)); Lettie M. Wenner & Lee E. Dutter, *Contextual Influence on Court Outcomes*, 41 W. POL. Q. 115, 123–24 (1988) (finding that the First, Second, Third, Sixth, and Ninth Circuits were more responsive to environmental demands, while the Fourth, Tenth, and Eleventh were more responsive to industry demands).

97. Broussard & Whitaker, *supra* note 22, at 137 (in a study of 291 district and circuit court cases litigated between 1970 and 2001, environmental organizations were the plaintiffs in 61% and 66% of the district and circuit court cases, respectively); Beth Gambino Portuese et al., *Litigants’ Characteristics and Outcomes in U.S. Forest Service Land-Management Cases 1989–2005*, 107 J. FORESTRY 16, 18–19 (2009) (finding that of 2,501 parties involved in 949 cases from 1989 to 2005, the top twelve parties were all environmental organizations).

98. Broussard & Whitaker, *supra* note 22, at 137 (finding that the USFS won 60% of the district and 57% of the circuit court cases); Miner et al., *Forest Service Litigations*, *supra* note 96, at 34 (finding that the USFS won 70% of the appeals and 64% cases decided on the merits); Miner et al., *NEPA Litigations*, *supra* note 88, at 123 (finding that the USFS won 66% of the NEPA cases litigated).

99. Broussard & Whitaker, *supra* note 22, at 135; Gambino Portuese, *supra* note 97, at 16–17 (finding that repeat litigants, which were overwhelming environmental organizations, were more likely to prevail in their claims); Miner et al., *Forest Service Litigations*, *supra* note 96, at 35 (finding that the USFS won only 49% of the cases filed by environmental interests versus 70% of cases involving other plaintiffs).

find statistically significant differences between the George W. Bush and Obama administrations.¹⁰⁰

One study of NEPA litigation has examined the influence of judicial ideology on case outcomes, but it was limited to the first term of the Bush Administration and the analysis consisted solely of descriptive statistics.¹⁰¹ It nevertheless found dramatic differences between Democratic- and Republican-appointed judges in NEPA cases at the district court and appellate levels.¹⁰² Beyond this work, a large literature exists on the role of judicial ideology in federal cases, including a small number of studies that examine environmental cases.¹⁰³ A ground-breaking study from the late 1990s examined the impact of judicial ideology on environmental cases decided by the D.C. Circuit.¹⁰⁴ Consistent with the results in the recent NEPA study, the authors found that “ideology significantly influences judicial decisionmaking” and that “a judge’s vote (not just the panel outcome) is greatly affected by the identity [i.e., political affiliation] of the other judges sitting on the panel.”¹⁰⁵ The central finding of the study was that “judges generally vote consistently with their ideological preferences only when they sit with at least one other judge of the same political party.”¹⁰⁶ Given the importance of the effects observed in these studies, as well as a large body of

100. Keele & Malmshemer, *supra* note 95, at 126 (finding that the differences in rates at which the USFS prevailed was not statistically significant between the George W. Bush and Obama administrations); Malmshemer et al., *supra* note 95, at 22 (finding that the USFS won a lower proportion of cases during the Reagan Administration (28.6%) than the George H.W. Bush Administration (64%) and the Clinton Administration (80%)).

101. AUSTIN ET AL., *supra* note 59, at 1–2 (reporting findings for 325 district court and appellate cases decided during the first term of the George W. Bush Administration that substantial differences existed in case outcomes based on the party affiliation of the judge(s) hearing the case).

102. The authors found that Democratic-appointed district judges were twice as likely to rule in favor of environmental plaintiffs as Republican-appointed judges (59% versus 28%, respectively) and that on appeal Democratic-majority panels were six times more likely to rule in favor of environmental plaintiffs as Republican-majority panels (58% versus 10%, respectively). *Id.* at 8–9. Because the number of appellate cases was modest (107 in total) and they were subdivided according to the balance of Democratic- and Republican-appointed judges, interpretation of the data would have benefitted from a formal statistical analysis of the results.

103. Miles & Sunstein, *supra* note 20, at 827; Thomas J. Miles & Cass R. Sunstein, *The Real World of Arbitrariness Review*, 75 U. CHI. L. REV. 761, 761 (2008); Revesz, *supra* note 20, at 1721 (examining 250 environmental cases decided by the D.C. Circuit between 1970 and 1994); Robert Steinbuch, *An Empirical Analysis of Reversal Rates in the Eighth Circuit During 2008*, 43 LOY. L.A. L. REV. 51, 51 (2009); Sunstein et al., *supra* note 20, at 305.

104. Revesz, *supra* note 20, at 1717–18.

105. *Id.* at 1719.

106. *Id.*

work in other areas of law,¹⁰⁷ we collected background information on federal judges, including the party of the President that nominated each judge.

The existing literature reveals that while thousands of federal actions are potentially subject to NEPA procedures, the vast majority are either exempted under CEs or reviewed under streamlined EAs. The few available studies also suggest that legal challenges to such abridged NEPA procedures are exceedingly rare, particularly relative to the large number of NEPA reviews that are conducted annually, but the data are limited in scope and time. The most consistent observation is that EISs and NEPA litigation are concentrated in western states and a small number of federal agencies. As discussed further below, this geographic bias influences inter-circuit differences in judicial review of NEPA compliance, whereas the dominance of a few federal agencies drastically limits the impact of NEPA procedures on most federal agencies. Questions left unresolved by the existing studies include whether case outcomes differ significantly across circuits, administrations, and classes of plaintiffs, as well as the degree to which judicial ideology is a consistent factor in determining outcome of judicial review.

II. THE PATTERNS OF NEPA LITIGATION AND FACTORS THAT INFLUENCE CASE OUTCOMES

Our studies of district and circuit court cases used both traditional sampling methods and automated coding for the entire population of cases in our database: 1,572 district court and 656 circuit court opinions issued from 2001 through 2015. In addition, we collected data on an initial round of 200 cases from a comprehensive list of NEPA cases litigated during the Bush Administration and a second sample of about 175 cases filed during the Obama Administration. These subsamples included cases that were settled or dismissed prior to a legal ruling on the merits and were essential to estimating settlement rates, which differed substantially between the two administrations. Most of our analysis, however, centers on the full population study of NEPA cases and two samples consisting of 498 district and 334 circuit court cases. The details of the empirical methods and protocols are described in the Appendix.

107. See, e.g., Joshua B. Fischman & David S. Law, *What is Judicial Ideology, and How Should We Measure It?*, 29 WASH. U. J.L. & POL'Y 133 (2008); Daniel E. Ho & Kevin M. Quinn, *How Not to Lie with Judicial Votes: Misconceptions, Measurement, and Models*, 98 CALIF. L. REV. 813 (2010); Michael A. Bailey, *Measuring Ideology on the Courts* (Jan. 7, 2016) (unpublished manuscript), http://faculty.georgetown.edu/baileyma/MeasuringIdeology_Jan2016.pdf.

The analysis we conducted includes a mix of descriptive statistics (i.e., a breakdown of cases by agency, circuit, class of plaintiff, claims raised) and formal statistical methods for hypothesis testing. The descriptive statistics provide insights into the broad patterns of NEPA litigation and highlight the variation in litigation across agencies, circuits, and administrations. Consistent with prior studies, we find that the impact of NEPA as measured by litigation rates is skewed towards a small subset of agencies, but the specific claims raised and the rates at which plaintiffs prevail were relatively uniform. The variation we observe in case outcomes is associated with the presidential administration, the circuit in which a case is filed, and the political affiliation of the judge(s) hearing the case.

Beyond gaining a broader understanding of the distribution of NEPA litigation and the parties filing the cases, we embarked on the project with ten central hypotheses that were motivated by the prior empirical work and our knowledge of NEPA processes and litigation. The hypotheses fall into three basic categories: (1) those related to the influence of judicial ideology on case outcomes (hypotheses 1–5); (2) those related to external explanatory variables, such as agency and circuit (hypotheses 6–9); and (3) those related to the nature of the NEPA claims asserted (hypothesis 10). The specific hypotheses were as follows:

Hypothesis 1: District court judges appointed by Democratic presidents will be more likely to rule in favor of environmental, or other similarly situated, plaintiffs than district court judges appointed by Republican presidents because of the widespread political polarization of environmental issues.

Hypothesis 2: Appellate panels on which circuit judges appointed by Democratic presidents are in the majority will be more likely to rule in favor of environmental, or other similarly situated, plaintiffs than appellate panels on which circuit judges appointed by Republican presidents are in the majority because of the widespread political polarization of environmental issues. As a corollary, appellate panels with all Republican or Democratic judges will have the greatest differences in the rates at which environmental plaintiffs succeed.

Hypothesis 3: Judges will be more deferential to administrations in which the President is from the same party as the President that appointed them—Republican-appointed judges will be more deferential to Republican administrations and Democrat-appointed judges will be more deferential to Democratic administrations.

Hypothesis 4: The influence of judicial ideology in NEPA cases will be greater during Republican than Democratic administrations because the ideological commitments of judges will align in different ways. During a

Republican administration, Democratic judges will be ideologically opposed to the administration and sympathetic to NEPA's environmental mandate, whereas Republican judges will be ideologically sympathetic to the administration and opposed to NEPA; as a consequence, the potential influence of ideology will be magnified. By contrast, during a Democratic administration, Democrat-appointed judges' ideological commitments will be split between the administration and NEPA's environmental mandate, whereas Republic-appointed judges will not be sympathetic to either; as a consequence, the potential influence of ideology will be moderated.

Hypothesis 5: District court judges will be more willing to rule against federal agencies in NEPA actions than in administrative challenges generally because the risk of being overturned is very low given that federal agencies so rarely appeal judgments against them.

Hypothesis 6: Plaintiffs will succeed at higher rates during the Bush Administration than the Obama Administration in district and appellate court cases because compliance with NEPA will, on average, be less rigorous during the Bush Administration.

Hypothesis 7: Circuits in which a large number of NEPA cases are filed will be less deferential to federal agencies because, analogous to a specialized court, familiarity with the legal issues and more extensive circuit precedent will lead to less deferential judicial review.

Hypothesis 8: The rate at which plaintiffs prevail against agencies subject to high rates of NEPA litigation will be lower than that for agencies rarely subject to litigation because the risk of noncompliance will be greater for these agencies, inducing them to heed NEPA's requirements more conscientiously than if litigation risks were low.

Hypothesis 9: Environmental plaintiffs are more likely to prevail in NEPA lawsuits than other classes of plaintiffs because their interests are closely aligned with the statutory mandate and they file the great majority of cases.

Hypothesis 10: Consistent with standards for judicial review of administrative proceedings, claims that involve technical determinations implicating agency expertise will be less likely to succeed than claims involving purely legal or procedural challenges.

The testing of these hypotheses through a series of logistic regressions was complemented by an examination of descriptive statistics that provided an initial gauge of the variation in NEPA litigation across the key explanatory variables. Overall, we find solid to strong support for hypotheses 1–6 & 9, qualified support for hypothesis 7, and no support for hypotheses 8 and 10. These results reveal that while the rates of NEPA litigation vary dramatically across agencies, case outcomes are surprisingly uniform despite the heterogeneity of agency actions and mandates. The patterns found to be

consistent with statistical testing are closely associated with the political affiliation of judges, specific circuits, the politics of presidential administrations, and the type of plaintiff, but we observe substantial differences between the district and circuit court cases that reflect their respective positions in the judicial hierarchy and modes of operation. These results suggest that the influence of judicial ideology on case outcomes cannot be evaluated in isolation, as it is mediated by presidential politics and structural factors, such as the distribution of cases across circuits and the statistics governing the ideological balance of three-judge appellate panels.

A. The Concentration of NEPA Litigation Regionally and Substantively

We find little evidence that environmental plaintiffs,¹⁰⁸ whether national or local organizations, are using NEPA for purely strategic reasons to hold up government action. If environmental plaintiffs were filing cases purely on strategic grounds, instead of the merits, we would expect them to prevail less often than other plaintiffs. Yet, they won substantially more often at the district court level than other plaintiffs (35% versus 16%, respectively) and on appeal (27% versus 14%). Environmental organizations also accounted for roughly two-thirds of the district and circuit court cases, with local environmental groups filing about twice as many cases as national environmental groups in our sample.¹⁰⁹ By contrast, businesses or business associations were plaintiffs in just 7% of the district and appellate court cases.¹¹⁰ In the broader context of judicial review, the success rates of environmental organizations were similar to the averages for challenges to

108. Plaintiffs were divided into five broad classes: local environmental organizations; national environmental organizations; other non-governmental organizations; businesses and business associations; and cities, counties, states, and tribes. “National environmental organizations” were defined narrowly to include a small number of high-profile environmental organizations (e.g., Sierra Club, Natural Resources Defense Council, National Wildlife Federation, Center for Biological Diversity) to identify the organizations that litigated a large share of NEPA cases.

109. At the district court level, local environmental groups filed 46% of the cases in our sample and national environmental groups filed 24%; at the circuit court level, they filed 40% and 24% of the cases, respectively. The plaintiffs in a significant number of cases included both local and national environmental organizations; these cases were categorized as having been filed by national environmental organizations.

110. In addition, cities, counties, states, or tribes were plaintiffs in 7% of the district court cases and 11% of the appeals; individuals and non-governmental organizations filed 5% and 11%, respectively, of the district court cases and accounted for 7% and 11%, respectively, of the appeals.

agency action in a wide range of empirical studies;¹¹¹ moreover, they were substantially higher than the global averages during the Bush Administration.¹¹² These findings, along with the roughly proportional share of appeals by environmental organizations (i.e., rates comparable to other plaintiffs), provide strong evidence that NEPA litigation is grounded on legitimate claims.¹¹³ In sum, neither the number of cases filed annually nor their outcomes suggests that NEPA litigation is out of step with litigation in other areas of administrative law.

Contrary to our eighth hypothesis, we observe no meaningful differences in case outcomes or characteristics across federal agencies despite the enormous range of federal actions that NEPA encompasses.¹¹⁴ The only exception is the number of cases filed—consistent with earlier studies, a small number of agencies are the subject of most NEPA litigation. However, this pattern is partly attributable to the diverse mandates of federal agencies, many of which do not involve actions that have significant environmental

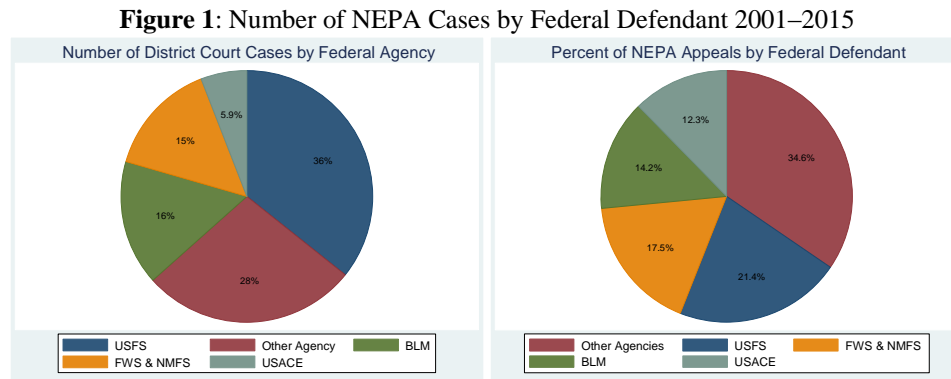
111. See Miles & Sunstein, *supra* note 103, at 767–68 (reporting data on administrative review cases involving EPA indicating that agencies prevailed on average 72% of administrative challenges on appeal); Richard J. Pierce & Joshua Weiss, *An Empirical Study of Judicial Review of Agency Interpretations of Agency Rules*, 63 ADMIN. L. REV. 515, 515 (2011) (observing that “[c]ourts at all levels of the federal judiciary uphold agency actions in about 70% of cases” irrespective of the standard of review that they apply); Richard J. Pierce, *What Do the Studies of Judicial Review of Agency Actions Mean?*, 63 ADMIN. L. REV. 77, 84–85 (2011) (synthesizing the results of numerous empirical studies of judicial review and finding that agencies prevail in 64% to 81% of the cases at the circuit level). A recent study finds that success rates in adjudicated cases in federal courts fell from 70% in 1985 to 33% in 2009. Alexandra D. Lahav & Peter Siegelman, *The Curious Incident of the Falling Win Rate 1* (July 7, 2017) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2993423. Thus, plaintiff success rates in NEPA cases are similar to the recent figures on success rates in civil cases generally in the federal courts.

112. The disparity in success rates between environmental and other plaintiffs was far greater during the Bush than the Obama Administration. Specifically, during the Bush Administration environmental organizations prevailed in 45% and other plaintiffs in just 20% of the cases; during the Obama Administration, they prevailed in 24% and 13%, respectively, of the cases. On appeal during the Bush Administration, environmental organizations prevailed in 35% of the cases and other plaintiffs prevailed in 16%, whereas during the Obama Administration, the success rates converged to 17% and 15%, respectively.

113. Litigants motivated by a desire to delay projects may, of course, also have strong substantive grounds under NEPA for challenging such projects.

114. During the Bush Administration, none of the differences was statistically significant or sizeable in absolute terms—regardless of how we grouped federal agencies, plaintiffs prevailed roughly 33% to 42% of the time. Similarly, under the Obama Administration only the USFS was a potential outlier, but plaintiffs prevailed just 30% more often than against other federal agencies collectively (25% versus 19%, respectively). In essence, the data reveal that plaintiffs’ success rates dropped roughly equivalently across all federal agencies during the Obama Administration; this shift simply magnified the somewhat higher success rates against the USFS.

impacts. To give just one example, the FHWA is much more likely through its highway funding programs to trigger a full NEPA review than, say, the Department of Housing and Urban Development. The reason for this is obvious—the scale of highway development and the environmental settings in which projects occur are typically of a different order than a housing development in an urban setting. Figure 1 below bears out this inference, but the degree to which NEPA litigation targets a handful of federal agencies exceeded our expectations.¹¹⁵ About three-quarters of the district and circuit court cases involved just five federal agencies, each of which either manages federal lands or has principal authority for protecting natural resources.¹¹⁶ Equally striking, just two federal agencies, the USFS and BLM, accounted for more than 50% of the district court cases.



While this concentration is driven in part by the large geographic scale and environmental sensitivity of the public lands each agency manages, the share of cases filed against these agencies nevertheless appears disproportionate. Many federal agencies routinely undertake or oversee actions with large environmental impacts and yet are rarely subject to lawsuits, notably agencies

115. The distribution of cases across federal agencies was very similar for the statistical sample of cases we coded by hand: USFS—36%; Other Agencies—28%; FWS & NMFS—15%; BLM—13%; and USACE—8.6%.

116. The appellate cases mirror the results for the district court cases, with federal land management and conservation agencies dominating appeals. While it is true that appeals from cases involving USACE occurred at higher rates (6% of the district court cases versus 12% of the appeals) and appeals against the general class of “other federal agencies” occurred at lower rates (28% of district cases but just 21% of appeals), we believe that much of this difference is attributable to the variation in plaintiff success rates. For example, plaintiffs prevailed against USACE (17% of the cases) at a lower rate than in cases involving all other federal agencies (29%), whereas plaintiffs won 36% of the cases involving “other federal agencies.”

such as DOE, the Department of Defense, and the FHWA.¹¹⁷ Table 1 below provides a measure of the observed imbalance by comparing the percentage of the total number of EISs issued nationally by prominent agencies against the percentage of the total number of NEPA suits with EIS-related claims filed nationally against each of those agencies. Table 1 shows that for all but the BLM, the relative litigation rates were much higher for the land management and natural resource conservation agencies, with the NMFS having a litigation rate that was five times the share of EISs it issued.

Table 1: Comparison by Agency of Percent EISs vs. Percent EISs Litigated¹¹⁸

AGENCY	EPA-EISS	LITIGATION RATES	MULTIPLE
BLM	11.6	11.44	1.0
DOD	5.4	3	0.6
DOE	2.7	1.91	0.7
FERC	3.3	3.54	1.1
FHWA	8.2	2.18	0.3
FWS	3.9	7.08	1.8
NMFS	1.4	7.36	5.3
OTHER AGENCIES	32.1	28.34	0.9
USACE	9.6	4.36	0.5
USFS	21.7	30.79	1.4

Accordingly, a central question raised by this and previous studies is why NEPA litigation does not reflect the extraordinarily broad scope of the statute, and why it is disproportionately used by plaintiffs to challenge decisions involving a handful of federal agencies. We suspect that this finding derives from a combination of the exemptions to NEPA for a variety of environmental programs, most notably under the Clean Air Act and Clean

117. Only the FHWA accounted for more than 5% of the district court cases filed, and it accounted for just about 6% if cases involving other agencies within DOT are included.

118. The EIS data are taken from the EPA EIS database that covers 2012–2016. EPA EIS Database, *supra* note 65.

Water Act,¹¹⁹ and the limited availability¹²⁰ or perceived weakness of legal actions under the organic statutes that govern public lands management and resource conservation in the U.S.¹²¹ Those factors may induce litigants to challenge land management agency decisions on NEPA grounds instead of or in addition to challenges based on substantive violations of the organic acts.¹²² Strategically, plaintiffs may believe that courts will be less reluctant to find procedural violations of NEPA than to second-guess the agencies on their substantive resource management decisions.¹²³

The focus of NEPA litigation on a small subset of federal agencies is mirrored in the geographic distribution of cases across federal circuits. As noted earlier, most federal land is located in western states, suggesting that on this basis alone one would expect cases to be filed disproportionately in the Ninth and Tenth Circuits, which together encompass 99% of BLM land, 85% of USFS land, and 91% of NPS land.¹²⁴ We find that two-thirds of the

119. *See* 15 U.S.C. § 793(c)(1) (2012) (“No action taken under the Clean Air Act . . . shall be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the [NEPA].”); *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 381 (D.C. Cir. 1973) (holding that EPA need not comply with NEPA in issuing standards of performance for new stationary sources under the Clean Air Act).

120. Courts are often unwilling to resolve challenges to programmatic decisions by the land management agencies. *See Lujan v. Nat’l Wildlife Fed’n*, 497 U.S. 871, 891 (1990) (alleged land withdrawal review program); *see also Norton v. S. Utah Wilderness All.*, 542 U.S. 55, 63 (2004) (holding that courts may address allegations that agency action was unlawfully withheld in suit brought under § 706(1) of the APA only if the relief sought is an order to take discrete action that is legally required); *Ohio Forestry Ass’n v. Sierra Club*, 523 U.S. 726, 738 (1998) (challenge to land use plan not ripe).

121. There is a tradition of judicial deference to land management agency decisions, particularly decisions made by the USFS and the BLM, which operate under an amorphous multiple-use, sustained-yield standard. *See, e.g., Perkins v. Bergland*, 608 F.2d 803, 806 (9th Cir. 1975).

122. The availability of compelling claims under the Clean Water Act’s dredge and fill permit program, 33 U.S.C. § 1344 (2012), may be an example that at least partially explains why the USACE is a much less frequent defendant in NEPA litigation than the USFS. Other agencies, such as the Departments of Defense and Energy, may be sued relatively infrequently because of concerns that courts will be reluctant to enjoin activities with national security implications, *see, e.g., Winter v. NRDC*, 555 U.S. 7, 26 (2008) (refusing to enjoin naval training exercises), or that, even if environmental plaintiffs prevail in court, Congress may enact appropriations riders exempting the agencies from NEPA compliance.

123. We have anecdotal support for this inference based on conversations with Sharon Buccino, who is the Director of the Land & Wildlife Program at the Natural Resources Defense Council in Washington, D.C. It is possible that litigants with strong claims under environmental statutes other than NEPA see little downside to adding a NEPA claim that they would not have thought worth litigating in isolation. Our data do not allow us to assess whether litigants actually pursue this strategy.

124. The percentages for each circuit are as follows: the Ninth Circuit encompasses 72% of BLM land, 64% of USFS land, and 84% of NPS land; the Tenth Circuit encompasses 27% of

district court cases were filed in either the Ninth or Tenth Circuits and that 12% were filed in the D.C. Circuit (see Figure 2).¹²⁵ The distribution of appeals across circuits largely matches the district court filings, albeit with somewhat higher rates of appeals in the Tenth Circuit.¹²⁶ At the state level, two-thirds of the cases were filed in just ten states,¹²⁷ and just four states (Arizona, California, Montana, Oregon) and the District of Columbia accounted for half of the cases. Only two states of the top ten, Florida and New York, were eastern states and each has distinctive characteristics—Florida has many endangered species and wetlands (including the Everglades),¹²⁸ and New York has significant wetlands and very powerful environmental interests. The D.C. Circuit is unique for a different reason: Plaintiffs can use it as an alternative venue to the circuit in which a federal action is located because most federal agencies are based in D.C.¹²⁹

BLM land, 22% of USFS land, and 7% of NPS land. CAROL HARDY VINCENT ET AL., CONG. RESEARCH SERV., R42346, FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA 9–11, 21 (2017), <https://fas.org/sgp/crs/misc/R42346.pdf> [hereinafter VINCENT, FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA].

125. The distribution of cases across federal circuits was similar in our sample study: Ninth Circuit—51%, Other Circuits—27%, D.C. Circuit—12%; Sixth Circuit—3%; and the Tenth Circuit—7%.

126. The appeal rate in the Tenth Circuit was almost twice that of other circuits, as it accounted for 12% of the appeals but just 6.7% of the district court cases. This cannot be explained by more aggressive litigation on the part of environmental plaintiffs, as their rates of litigation do not differ from those in other circuits (64% nationally versus 67% in the Tenth Circuit). Statistically, the small absolute number of appeals in the Tenth Circuit, just thirty-nine in total, may foreclose ruling out random variation.

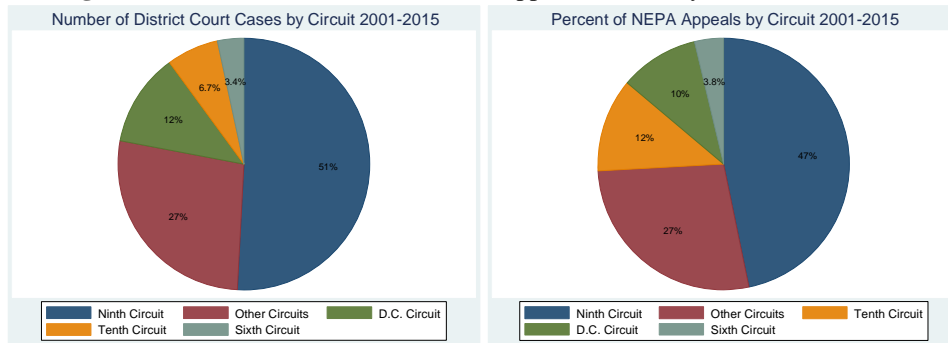
127. The states are: Arizona, California, Colorado, District of Columbia, Florida, Idaho, Montana, New York, Oregon, and Washington. Only Colorado, Florida, and New York are outside the Ninth or D.C. Circuits.

128. Florida also ranks 15th nationally with regard to the percentage (13.0) of federal land in the state. See VINCENT, FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA, *supra* note 124, at 7.

129. See 28 U.S.C. § 1391(e)(1) (2012) (providing that a civil action in which a defendant is the United States, a federal agency, or an official of such an agency may be brought in any judicial district in which a defendant in the action resides).

In the Ninth and D.C. Circuits,¹³⁰ the concentration of cases may also be influenced by forum shopping. As discussed further below, plaintiffs prevailed in district court cases at substantially higher rates in the Ninth and D.C. Circuits, and on appeal they prevailed at higher rates in the Ninth Circuit. While the number of cases and success rates are suggestive, we found that less than 12% of the cases, at either the district court or appellate level, involved federal actions that spanned more than one circuit. Thus, while we observe a clear preference for the Ninth and D.C. Circuits among the few cases involving government actions that spanned more than one circuit,¹³¹ the limited numbers neutralize the potential impact of forum shopping. These numerical limits do not, however, foreclose the lower success rates of plaintiffs in other federal circuits from operating as a deterrent to NEPA challenges. If this were a significant factor, it could depress the number of cases outside the Ninth and D.C. Circuits and exacerbate the skewed distribution of NEPA cases geographically and by circuit. In either case, the net effect is that most of the legal precedent under NEPA has evolved in the Ninth, Tenth, and D.C. Circuits, but with the Ninth Circuit clearly the dominant one of the three.¹³²

Figure 2: Number of NEPA District and Appellate Cases by Circuit 2001–2015



The concentration of cases in three circuits has the potential to result in their precedents shaping the evolution of legal doctrines under NEPA

130. The D.C. Circuit cases involved challenged activities that were located in eleven circuits with the highest number of cases originating from the Fourth Circuit (four cases), Sixth Circuit (four cases), Tenth Circuit (five cases), and Eleventh Circuit (three cases).

131. Together, the two Circuits accounted over our sample period for about 85% of the district court and 75% of appellate cases involving government actions that spanned more than one circuit.

132. Over the fifteen years covered by the study, only the Ninth, Tenth, and D.C. Circuits had more than thirty-one district court cases or more than twenty-five appellate cases. These estimates are based on the auto-coding of cases and thus represent upper bounds on the actual number of cases filed in each circuit at the district and appellate levels.

nationally. One might also expect the predominance of certain kinds of agency actions in these circuits to reinforce this effect, as the types of claims and facts at issue would frame the context in which legal doctrines are developed. Somewhat surprisingly, we do not observe any systemic patterns associated with the variation in the frequency of claims brought against specific federal agencies or within certain circuits. Moreover, to the extent we do observe significant differences across circuits with regard to plaintiffs' success rates, these differences were not associated with particular legal doctrines or claims.

The absence of variation in the claims raised across agencies and circuits is consistent with the lack of variation we observe in the success rates for different NEPA claims. While a subset of claims tends to predominate in the district court cases, irrespective of circuit or agency, none stands out as favoring or disfavoring plaintiffs. The most common challenges focused on the alternatives considered in an EA or EIS, the cumulative impacts of a federal action, mitigation measures contemplated by an agency, and the scope of the NEPA analysis (see Tables 2 & 3 in the Appendix). These four classes of claims, along with challenges to uses of categorical exclusions and demands for supplemental EISs, were the only substantive claims raised in more than 10% of the district court cases. The sole exception to this rule was claims challenging plaintiffs' constitutional standing to sue; although the single most frequently claim litigated (see Table 4 in the Appendix), they rarely succeeded.¹³³

The appellate cases also displayed a similar lack of variation in the frequency of claims filed across federal agencies and circuits. The rates at which specific claims were appealed largely followed their frequency in the district court cases;¹³⁴ in essence, the same small number of NEPA claims raised at the district court level reappear in the appeals (see Tables 7 & 8 in the Appendix). The four classes of challenges noted above to the content of EAs and EISs, along with claims requesting supplemental EISs, were the only substantive claims raised in more than 10% of the appeals. Constitutional

133. We found that constitutional standing was a basis for the court's ruling in roughly 6% of the cases.

134. The only notable exception was challenges to "findings of no significant impact," so-called FONSI claims, which occurred twice as often in appeals (36% of the cases) as they did at the district court level (13% of the cases). However, the higher rate of FONSI claims tracked the higher rate of appeals for challenging EAs. It may be that plaintiffs believe that EAs are easier to challenge given that, by definition, the environmental reviews they contain are more superficial; however, we do not see any basis for such a view in our data. As an additional check, we included FONSI and EA claims as a dummy variable in the regression discussed below and did not find them to be statistically significant predictors of success in NEPA appeals.

standing was also the single most frequent issue litigated (see Table 7 in the Appendix), but it was once again exceedingly rare for defendants to succeed with such challenges.¹³⁵ The circuit court cases therefore reinforce the district court findings—a subset of claims tends to predominate in NEPA cases, but no single claim or collection of claims had a substantially greater likelihood of succeeding and none was statistically significant.¹³⁶

The NEPA claims raised most frequently were, by and large, the ones most commentators would predict. Their attractiveness to plaintiffs has several elements. Perhaps most importantly, these claims challenge the fundamental legitimacy of an agency's analysis—the alternatives analysis, for example, is viewed by courts as “the heart of” the NEPA process.¹³⁷ Similarly, failure to consider cumulative impacts,¹³⁸ or reliance on improper or poorly described mitigation methods,¹³⁹ can be determinative of whether NEPA applies and what level of analysis, an EA or EIS, is required. Moreover, at least some legal doctrines (such as the adequacy of alternatives analysis) have the virtue that they are less likely to implicate complex technical details that are difficult for courts to assess and thus may receive a higher degree of judicial scrutiny. On the other hand, segmentation claims, which are conceptually close cousins of cumulative impacts, are rare—a mere 2% of the cases. This finding is significant because it runs counter to the importance that many scholars have attached to segmentation as a barrier to effective implementation of NEPA, but may be explained by less favorable case law on segmentation than on cumulative impacts or by the likelihood that, if a litigant can raise a

135. We found that constitutional standing was a basis for the court's ruling in favor of agency defendants in roughly 5% of the appeals.

136. This finding is based on a combination of analyses based on Chi² tests and logistic regressions conducted using dummy variables for each of the most common claims (alternatives, cumulative impacts, mitigation measure, and scope). It is important to note that the small number of cases for many claims was a limiting factor statistically.

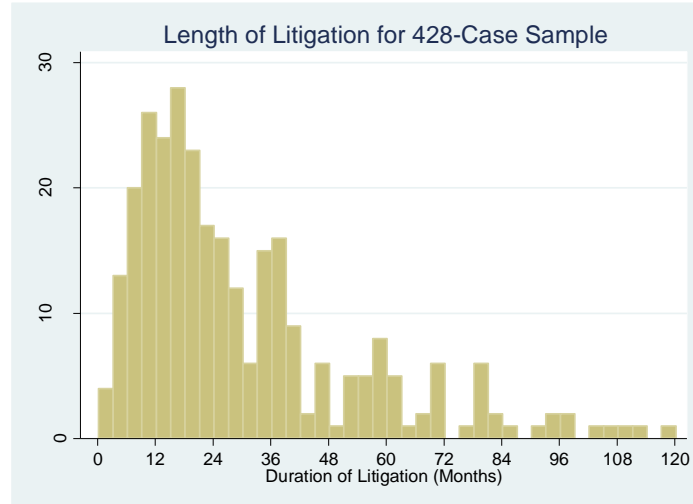
137. See *Union Neighbors United, Inc. v. Jewell*, 831 F.3d 564, 575 (D.C. Cir. 2016) (quoting 40 C.F.R. § 1502.14 (2017)).

138. See 40 C.F.R. § 1508.25(a)(2) (2017).

139. See *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1381–82 (9th Cir. 1998).

segmentation claim, it can also couch it in terms of insufficient cumulative impact analysis.¹⁴⁰

Figure 3: Duration of NEPA Litigation in District Courts



The final descriptive statistics that we examined were the rates at which cases settled and the duration of NEPA litigation.¹⁴¹ Using subsamples taken from cases filed during the Bush and Obama administrations, we found that 40% of the district court cases were either settled or dismissed during the Bush Administration versus 29% during the Obama Administration.¹⁴²

140. See, e.g., Mary-Kaitlin E. Rigney, *Clogging the Pipeline: Exploring the D.C. Circuit's Improper Segmentation Analysis in Delaware Riverkeeper Network v. FERC and Its Implications for the United States's Domestic Natural Gas Production*, 64 AM. U. L. REV. 1465, 1479 (2015) (“[T]he rule against segmentation has developed through common law to prevent agencies from dividing overall plans into component-parts and thereby avoiding the NEPA requirement of a comprehensive EIS.”); see also, e.g., Mark A. Chertok, *Overview of the National Environmental Policy Act: Environmental Impact Assessments and Alternatives*, in ENVIRONMENTAL LITIGATION, 757, 772 (A.L.I. CLE 2010) (“While segmentation per se is not unlawful, courts are skeptical of attempts to divide projects into segments in order to circumvent the mandate of NEPA.” (emphasis omitted)). See generally Robert D. Comer, *NEPA Compliance in Oil and Gas Leasing: Leasehold Segmentation and the Decision to Forego an Environmental Impact Statement*, 58 U. COLO. L. REV. 677 (1988).

141. To gain a statistical measure of the duration of NEPA litigation, we used a sample of roughly 300 NEPA cases litigated during the Bush Administration.

142. Determining settlement rates is difficult. “No single, agreed method of computing settlement rates exists because judgment calls exist how about [sic] to translate a range of formal case outcomes into the dichotomous characterization of settled or not settled. There may not even be a single ‘best’ measure of the settlement rate.” Theodore Eisenberg & Charlotte Lanvers, *What Is the Settlement Rate and Why Should We Care?*, 6 J. EMPIRICAL LEGAL STUD. 111, 114 (2009).

Plaintiffs were therefore both much less likely to prevail in their NEPA claims and less likely to settle during the Obama Administration. If the average case during the Obama Administration were weaker than the average during the Bush Administration, this shift could simply reflect the weaker cohort of cases rather than a decision by the Obama Administration to raise the bar for entering into settlements. We believe that the disparity in settlement rates supports the inference that NEPA compliance was more lax during the Bush Administration for the simple reason that one would expect, all other factors being equal, that an administration with weak environmental commitments would be more likely to adopt a hardline strategy that views settlement as an option of last resort.¹⁴³ Yet, we observe just the opposite—higher settlement rates during the Bush Administration—suggesting that the level of NEPA compliance was often sufficiently low to compel lawyers during the Bush Administration to settle.

Our data on the duration of NEPA litigation were limited to the Bush Administration. While we would have preferred to have data covering both administrations, we do not expect that the length of litigation is likely to change substantially between administrations, as it is largely dictated by either the courts or the plaintiffs—in part, because federal agencies so rarely appeal NEPA cases.¹⁴⁴ That may be because the time needed to conduct a new NEPA study may not differ significantly than the anticipated length of litigation. At any rate, duration is a key variable, practically and politically, because one of the recurring critiques leveled against NEPA is that its procedures and the litigation surrounding them has undermined federal programs by unduly burdening decision-making processes. By the standards of federal administrative litigation,¹⁴⁵ we find weak evidence for these claims

One study found that about 70% of federal court cases in a database maintained by the Administrative Office of U.S. Courts that terminated between 1979 and 2006 settled. *Id.* at 116 (citing Kevin M. Clermont & Stewart J. Schwab, *Employment Discrimination Plaintiffs in Federal Court: From Bad to Worse?*, 3 HARV. L. & POL'Y REV. 1 (2009)); see Daniel P. Kessler & Daniel L. Rubinfeld, *Empirical Study of the Civil Justice System*, in 1 HANDBOOK OF LAW & ECONOMICS 381–83 (A. Mitchell Polinsky & Steven Shavell eds., 2007) (reviewing empirical settlement literature).

143. This inference is reinforced by the substantially higher success rates of environmental plaintiffs during the Bush Administration. See discussion *infra* Part II.B.

144. In our appellate sample, federal agencies were the appellee in less than 3% of the cases.

145. See Mark A. Fellows & Roger S. Haydock, *Federal Court Special Masters: A Vital Resource in the Era of Complex Litigation*, 31 WM. MITCHELL L. REV. 1269, 1289 (2005) (citing U.S. COURTS, UNITED STATES DISTRICT COURTS—NATIONAL JUDICIAL CASELOAD PROFILE 167 (2003), http://www.uscourts.gov/sites/default/files/statistics_import_dir/District_FCMS_Sep_2003.pdf (finding that the average duration of a federal civil case from filing to trial increased from 19.5 to 22.5 months between 1998 and 2003)); Jessica Kier, *Raising the Bar: How Will the New Federal Rules of Civil Procedure Affect Your Required Level of Competency?*, 39 J. LEGAL

(see Figure 3). The median duration of a NEPA case was less than two years (twenty-three months), and 75% of the cases were resolved within 3.2 years (thirty-nine months). Moreover, for the subset of cases in which the federal government prevailed, the median duration was just 1.5 years (eighteen months), and 75% of the cases were resolved within three years (thirty-six months).¹⁴⁶

The descriptive statistics alone allow us to reject our hypotheses that procedural claims are more likely to succeed and that suits against federal agencies with higher rates of NEPA litigation are less likely to succeed (hypotheses 8 and 10). We do find evidence that case outcomes are influenced by the presidential administration, circuit in which a suit is filed, and class of plaintiff at the district and appellate court levels (hypotheses 6, 7, and 9). However, the descriptive statistics do not include any controls and thus, on their own, are inconclusive. In the subsection that follows, we discuss multiple regressions that include the potential explanatory variables along with several key control variables.

B. The Influence of Presidential Politics, Federal Circuit, and Judicial Ideology on the Outcome of NEPA Cases

We conducted a variety of statistical tests and subdivided the sample data along several dimensions, most notably by circuit, presidential administration, federal agency, and judicial ideology,¹⁴⁷ to test our starting hypotheses about their impact on case outcomes. This analysis provides strong evidence for the influence of presidential politics, judicial ideology,

PROF. 103, 105 (2014) (reporting that the median duration for securities class-action lawsuits was three and a half years); Kathryn Moss et al., *Prevalence and Outcomes of ADA Employment Discrimination Claims in the Federal Courts*, 29 MENTAL & PHYSICAL DISABILITY L. REP. 303, 307 (2005) (“Between 1990 and 1998, the percentage of general federal civil rights cases resolved within two years increased from 82 percent to 88 percent . . .”).

146. For cases in which the federal government wins, 50% of the cases are resolved within about 1.5 years; 75% resolved within three years; 90% of the cases are resolved within five years. For cases in which the plaintiff prevails on at least one claim, 50% of the cases are resolved within 2.5 years; 75% resolved within about 4.3 years; and 90% of the cases are resolved within 6.2 years.

147. Judicial ideology was defined by the party of the appointing President: judges appointed by Republican presidents were designated as Republican judges; judges appointed by Democratic presidents were designated as Democratic judges. The party of the appointing President is a rough proxy for judicial ideology, but it has the virtue that it errs on the side of obscuring the impact of ideology because the party of the appointing President does not necessarily reflect the ideology of the judge. Accordingly, if we observe a statistically significant effect it is likely to be a lower bound on the actual influence of ideology.

and the circuit in which a case is filed, but, consistent with the results above, no evidence that the federal agency or specific NEPA claims were significant factors. At the highest level of aggregation, we find large differences in outcomes between cases filed during the Bush Administration and those filed during the Obama Administration. Specifically, plaintiffs were almost twice as likely to win at the district court level during the Bush Administration than the Obama Administration, and they were 75% more likely to win at the appellate level.¹⁴⁸ This result supports our hypothesis that NEPA compliance was less rigorous during the Bush Administration (hypothesis 3), but there are other important factors that could be at play and that must be considered.

Statistically and practically, significant impacts were clearly associated with the circuit of origin. Plaintiffs were more than twice as likely to prevail at the district court level in the Ninth and D.C. Circuits relative to other circuits (collectively) during the Bush Administration,¹⁴⁹ and they continued to prevail almost twice as often in the Ninth Circuit during the Obama Administration, albeit at a lower absolute rate.¹⁵⁰ On appeal, only the Ninth Circuit was a more favorable venue, with plaintiffs prevailing 31% of the time versus 14% in other circuits collectively.¹⁵¹ However, unlike the district court cases, the advantage of filing an appeal in the Ninth Circuit disappeared statistically during the Obama Administration—dropping from a factor of 2.8 to 1.38.¹⁵² Given the absence of statistically significant differences across federal agencies, this finding suggests that district judges in the Ninth Circuit were less deferential than district judges in other circuits during both administrations, whereas Ninth Circuit appellate and D.C. Circuit district judges were less deferential only during the Bush Administration. We believe that these shifts in case outcomes were likely associated with the number of

148. Plaintiffs won 39% of the district court cases during the Bush Administration versus 20% of the district court cases during the Obama Administration. At the appellate level, plaintiffs won 28% of the cases during the Bush Administration versus 16% of the cases during the Obama Administration.

149. At the district court level, plaintiffs succeeded at a relatively high rate, 35% of the cases, in Tenth Circuit cases during the Bush Administration and at a relatively high rate overall, 28% of the cases; however, on appeal plaintiffs were much less likely to prevail in the Tenth Circuit than other circuits, 5% versus about 17% for all circuits excluding the Ninth Circuit.

150. During the Bush Administration, plaintiffs won about 45% of the cases in the Ninth and D.C. Circuits versus 23% of the cases in all other circuits; during the Obama Administration, plaintiffs won 24% of the cases in the Ninth Circuit versus 14% of the cases in all other circuits, including the D.C. Circuit.

151. Here, too, the disparity was much greater during the Bush Administration (40% in the Ninth Circuit versus 16% in other circuits collectively) than the Obama Administration (19% versus 13%, respectively).

152. Plaintiffs in the Ninth Circuit during the Bush Administration prevailed in 42% of the NEPA cases versus 15% in all other circuits collectively; during the Obama Administration, plaintiff success rates dropped to 18% and 15%, respectively.

cases, circuit-level dynamics, and the balance of Democratic- and Republican-appointed judges in each circuit; Part III discusses this and other related issues in detail.

The influence of judicial ideology on case outcomes is both more complex, particularly at the appellate level, and less pronounced than the impact of circuit and presidential politics. At the district court level, the difference in plaintiff success rates between judges appointed by a Republican President and judges appointed by a Democratic President was statistically and practically significant, respectively 31% versus 48%, during the Bush Administration; however, it dropped to 14% and 24%, respectively, during the Obama Administration and was no longer statistically significant. In short, the influence of judicial ideology changed with the shift in presidential politics—it was high when the conservative ideology of the Bush Administration was in tension with the liberal environmental statutory mandate of NEPA and relatively modest when NEPA policies were aligned with the priorities of the Obama Administration.

At the appellate level, the influence of judicial ideology was complicated by the permutations of three-judge panels. Similar to prior studies of judicial ideology in appellate courts, we observed the greatest differences in case outcomes when panels were ideologically uniform, either all Republican or all Democratic appointees, whereas ideologically mixed panels moderated case outcomes.¹⁵³ During the Bush Administration, plaintiffs prevailed twice

153. See, e.g., Adam B. Cox & Thomas J. Miles, *Judging the Voting Rights Act*, 108 COLUM. L. REV. 1, 53 (2008) (finding that the ideology of other judges on the panel affects judges' votes in Voting Rights Act cases); Frank B. Cross & Emerson H. Tiller, *Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals*, 107 YALE L.J. 2155, 2173–74 (1998) (concluding that judges' votes were influenced not only by their political affiliation, but also by the composition of the panel on which they sat); Pauline T. Kim, *Deliberation and Strategy on the United States Courts of Appeals: An Empirical Exploration of Panel Effects*, 157 U. PA. L. REV. 1319, 1328 (2009) (finding that “the tendency of appeals court judges to be influenced by their panel colleagues *does* depend on how the preferences of the circuit court as a whole are aligned relative to those of the panel members”); Miles & Sunstein, *supra* note 20, at 823 (concluding that “[i]n lower court decisions involving the EPA and the NLRB from 1990 to 2004, Republican appointees demonstrated a greater willingness to invalidate liberal agency decisions and those of Democratic administrations. These differences are greatly amplified when Republican appointees sit with two Republican appointees and when Democratic appointees sit with two Democratic appointees”); Kevin M. Quinn, *The Academic Study of Decision Making on Multimember Courts*, 100 CALIF. L. REV. 1493, 1494 (2012) (asserting that “judges decide some types of cases differently depending on the identities of their colleagues on a panel”); Revesz, *supra* note 20, at 1764 (concluding that “while individual ideology and panel composition both have important effects on a judge’s vote, the ideology of one’s colleagues is a better predictor of one’s vote than one’s own ideology”); Sunstein et al., *supra* note 20, at 304 (finding “ideological dampening” and “ideological amplification” in a wide variety of federal cases).

as often before a majority-Democratic panel as before a majority-Republican panel and four times the rate before an all-Republican panel.¹⁵⁴ Similar to the circuit effects, the impact of judicial ideology diminished during the Obama Administration, with plaintiff success rates converging to 9% to 13% for both all-Republican and ideologically mixed panels. The one exception was plaintiff success rates before all-Democratic panels, which declined only modestly during the Obama Administration.¹⁵⁵ While we cannot know whether the long-term baseline is closer to the level observed during the Bush or Obama Administrations,¹⁵⁶ the relative influence of judicial ideology as measured by the difference between majority-Democratic and majority-Republican panels is striking and may be generalizable to statutes that reflect traditionally conservative issues (e.g., immigration, regulatory reform, school choice) as well. The relative invariance of all-Democratic panels is also notable and suggests that Democratic judges are less deferential to agencies regardless of the administration.

One important difference to note between the district court and appellate cases is that federal defendants can initiate appeals. Of the 342 appellate cases in our sample, twenty-four of them were initiated by federal or private defendants or involved a cross appeal. Although representing less than 10% of the appeals, these cases are notable for their relatively high success rates—whereas plaintiffs won just 20% of the appeals they initiated, defendants won 38% of their appeals.¹⁵⁷ Thus, a defendant-initiated appeal was almost twice as likely to succeed as one initiated by a plaintiff. One must be careful, however, when interpreting these results because the small number of

154. Before a majority-Republican panel, plaintiffs prevailed in 20% of the cases and in just 5% of the cases before an all-Republican panel; by contrast, plaintiffs won 41% of their appeals before all- or majority-Democratic judge panels.

155. For all-Democratic panels, plaintiffs prevailed at roughly the same rates over both administrations—41% versus 33%, which was a similar degree of convergence observed at the district court level. By contrast, all-Republican panels displayed a greater level of deference towards the Bush Administration (ruling in its favor in 95% of the cases) and converged to the rates of mixed panels during the Obama Administration (9% to 13%). The small number of cases with ideologically uniform judges limits the inferences we can draw from the results.

156. At least one earlier study suggests that the average is closer to rates observed during the Obama Administration. Malmshiemer et al., *supra* note 95, at 22 (finding that the USFS prevailed in sixty-four percent of the NEPA cases during the George H.W. Bush Administration and eighty percent of the cases during the Clinton Administration).

157. We have lumped together all of the instances in which an appeal is at least partly initiated by a federal or private defendant due to the small number of such cases in our sample. There may be significant differences between the subsets of cases—in particular, defendants other than federal agencies actually prevailed at a higher rate than federal defendants, 44% versus 33% of the cases they appealed.

defendant-initiated appeals could reflect a high bar for pursuing appeals,¹⁵⁸ thereby strictly limiting appeals to cases with a high likelihood of succeeding. Nevertheless, because such judgments are made against adverse lower court rulings and often complex factual settings, it would take exceptionally good case selection to account for the dramatically different success rates. Accordingly, we suspect that the difference in case outcomes may also reflect a heightened level of deference appellate courts apply when a federal agency is the appellee, and that this may partially offset the weight circuit judges give to a lower court's ruling.

We conducted multiple regressions using the district and appellate court data.¹⁵⁹ Table 2 displays the results from five logistic regressions using a range of parameters to test the statistical significance and influence of key variables relative to each other. The dependent variable in each regression is case outcome, where success was defined as a plaintiff prevailing on at least one of its NEPA claims. Likelihood ratios for plaintiff success rates appear above the z-values,¹⁶⁰ which are in brackets, and the asterisks indicate the degree of statistical significance for each parameter. We also conducted additional regressions to assess whether specific NEPA claims were predictive of case outcome. Only one type of claim, challenges to mitigation measures in an EIS, generated results that were remotely close to being statistically significant; however, the effect was weak and the lack of statistical significance led us to drop it in the final set of regressions.¹⁶¹

158. Federal defendants won 71% of the district court cases, but defendants filed less than 7% of the appeals in the sample. This disparity implies that defendants filed only about a quarter of the appeals predicted based on the number of their losses in district court.

159. Because the dependent variable—whether the plaintiff prevailed on at least one of its NEPA claims—was categorical, logistic regression was used in place of conventional ordinary-least-squares regression. ALAN C. ACOCK, A GENTLE INTRODUCTION TO STATA 302–04 (3d ed. 2012). This type of regression generates a “likelihood” or “odds” ratio, which in our analysis is simply the ratio of the likelihood of a plaintiff prevailing when the value of the applicable dummy variable is “one” over the likelihood when it is “zero.” For example, the dummy variable presidential administration in our analysis designates the Bush Administration as “zero” and the Obama Administration as “one.” Accordingly, the likelihood ratio is the odds of a plaintiff winning its case during the Obama Administration *over* the odds of a plaintiff prevailing during the Bush Administration. In this case, a likelihood ratio of “0.5” implies that a plaintiff has a 50% *lower* chance of winning a NEPA suit during the Obama Administration than during the Bush Administration; conversely, a likelihood ratio of “1.5” implies that a plaintiff has a 50% *greater* chance of prevailing during the Obama Administration.

160. A “z-value” is a complementary measure of statistical significance that indicates the number of standard deviations the observed data deviate from the value predicted by the statistical model.

161. The association was also negative—mitigation claims were about 40% less likely to succeed than average.

Table 2: Logistic Regression for District Court Case Outcomes

	(1) Ruling	(2) Ruling	(3) Ruling	(4) Ruling	(5) Ruling
Administration	0.379*** (-4.27)	0.374*** (-4.34)	0.362*** (-4.53)	0.399*** (-4.34)	0.379*** (-4.64)
D.C. Circuit ¹⁶²	1.771 (1.47)	1.620 (1.26)	1.757 (1.49)	1.867 (1.67)	1.914 (1.75)
Ninth Circuit	2.831*** (3.64)	2.607*** (3.51)	2.468*** (3.37)	2.320** (3.22)	2.576*** (3.69)
National Environmental Organization	2.614** (3.07)	2.476** (2.93)	2.539** (3.02)	2.777*** (3.40)	1.695* (2.30)
Local Environmental Organization	2.080* (2.49)	1.945* (2.36)	1.972* (2.42)	2.092** (2.70)	
Appointing President's Party for Judge	1.904** (2.83)	1.809** (2.64)	1.851** (2.76)		
Case Published	1.382 (1.37)	1.375 (1.35)			
Federal Lands Agency	0.797 (-0.84)				
Federal Natural Resource Management Agency	0.546 (-1.68)				
<i>N</i>	462	462	462	462	462

Exponentiated coefficients; *z* statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

All five logistic regressions in Table 2 indicate that plaintiffs' success rates at the district court level were influenced strongly by the presidential

162. The baseline for the likelihood ratio is the odds of a plaintiff winning a NEPA case at the district court level in one of the circuits other than the Ninth and D.C. Circuits.

administration, whether the case was filed in the Ninth Circuit,¹⁶³ and whether the plaintiff was an environmental organization.¹⁶⁴ Plaintiffs were less than half as likely to succeed in a NEPA action during the Obama Administration than during the Bush Administration; they were roughly 2.5 times more likely to succeed in the Ninth Circuit; and plaintiffs were 2 to 2.5 times more likely to prevail if they were a local or national environmental organization.¹⁶⁵ Although the magnitude of the effect was lower, the regressions show that the political affiliation of the district judge influenced case outcomes, with judges appointed by a Democratic President 80% more likely to rule in favor of a plaintiff. By contrast, the defendant federal agency (focusing here on the federal lands and natural resource management agencies) was not a statistically significant factor.

These results confirm the association of presidential administration, class of plaintiff, circuit, and judicial ideology with the outcomes of district court cases. We conducted regressions with interaction terms to test whether the variables operated independently; none of the interaction terms was found to be statistically significant, which means that there was no evidence that the variables were influencing each other. The statistical significance and independence of the circuit variable implies that inter-circuit differences cannot be reduced to the ideology of judges—some structural feature of the circuits must also be at work. These dynamics are particularly novel because they reflect both absolute and relative changes in the rates at which plaintiffs prevailed before Democratic and Republican judges. In Part III we will argue that this combination of absolute and relative changes in case outcomes is driven by the degree of alignment between the ideology of the judge, the liberal values of NEPA, and the politics of the presidential administration in power. Misalignment of presidential politics with NEPA's goals is found to magnify the influence of judicial ideology on case outcomes.

163. The statistical significance of the coefficient for the D.C. Circuit may have been limited by statistical power. Only sixty cases were filed in the D.C. Circuit, which, while large relative to most circuits, was small for purposes of statistical power—for our data, the statistical power was less than sixty for any sample with fewer than ninety-four cases.

164. The dummy variable designating whether or not a case was published was included as a control variable.

165. The success rates of environmental plaintiffs diverged somewhat across administrations—national environmental organizations had higher success rates than local ones (53% versus 40%, respectively) during the Bush Administration but they converged during the Obama Administration (25% and 21%, respectively).

The regressions for the appellate cases appear in Table 3 below. The dependent variable in each regression is, again, case outcome, with success defined as a plaintiff prevailing on at least one of its NEPA claims. The other statistics in Table 3 mirror those of Table 2 apart from judicial ideology, which treats the four different combinations of three judges separately using panels with two Republican-appointed judges and one Democratic-appointed judge as the baseline against which the likelihood ratios for the other three panels are calculated. Similar to the district court cases, we conducted multiple regressions on specific NEPA claims, only one of which, whether an agency took a “hard look” at the environmental impacts of a federal action, was statistically significant. Consideration of whether an agency took a hard look reduced the likelihood of a plaintiff prevailing by more than 50%. However, judges used the hard look rubric in a generic manner that raises questions of endogeneity—judges convinced on independent technical grounds that an agency’s analysis was adequate often ended their analysis by concluding that the agency had undertaken the required hard look. With regard to other NEPA claims, the smaller sample size for our appellate database and the low rates at which most were raised limited the statistical power of our analysis.

Table 3: Logistic Regression for Appeals Outcome

	(1) Ruling	(2) Ruling	(3) Ruling	(4) Ruling	(5) Ruling
Other Circuits- Ninth Circuit	2.171* (2.22)	2.294* (2.43)	2.757** (3.25)	3.054*** (3.62)	3.646*** (4.31)
Administration ¹⁶⁶	0.553 (-1.95)	0.537* (-2.06)	0.572 (-1.89)	0.555* (-2.00)	0.516* (-2.28)
Case Published ¹⁶⁷	2.742** (2.63)	2.646* (2.56)	2.611* (2.56)	2.724** (2.69)	3.286** (3.24)
Hard Look	0.441* (-2.37)	0.448* (-2.33)	0.442* (-2.43)	0.473* (-2.26)	0.422** (-2.63)
Appellee	0.210** (-2.86)	0.219** (-2.81)	0.223** (-2.94)	0.259** (-2.72)	
Environmental Organization	1.953 (1.94)	2.094* (2.21)	2.032* (2.17)		
Circuit Panel 3-Reps	0.730 (-0.52)	0.770 (-0.43)			
Circuit Panel 1-Rep/2-Dems	1.283 (0.68)	1.291 (0.70)			
Circuit Panel 3-Dems	2.207 (1.81)	2.247 (1.86)			
Federal Land Agency	1.317 (0.86)				
<i>N</i>	330	330	334	334	334

Exponentiated coefficients; z statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

166. The time lag associated with appeals makes it more difficult to define when one administration stops and another begins, as an appeal may originate in actions that occurred in a prior administration. We experimented with different cutoff dates and found, overall, relatively minor differences in the results. As a consequence, we adopted a “middle of the road” approach that defines the Bush Administration as encompassing all Circuit cases filed between 2002 and 2009, and the Obama Administration as encompassing all cases filed between 2010 and 2015.

167. Whether the case was published is a control variable, but it does not change the results significantly if it is excluded. The principal impact is on the Ninth Circuit variable, which falls below statistical significance if publication is removed. The coefficients for other independent variables change only modestly.

The regression coefficients in Table 3 for the Ninth Circuit and environmental plaintiffs are each statistically and practically significant. On appeal, plaintiffs were roughly 2.5 times more likely to win in the Ninth Circuit; similarly, environmental plaintiffs were about two times more likely to prevail than other classes of plaintiffs, although the statistical significance of this finding was weaker. The coefficient for presidential administration was practically significant—plaintiffs were about half as likely to succeed on appeal during the Obama Administration relative to the Bush Administration—but it was at the margin for statistical significance. Given that our sample includes over 340 cases and is almost equally divided between the Bush and Obama administrations, this is unlikely to be a problem of limited statistical power.¹⁶⁸ We therefore cannot confidently reject the possibility that the observed inter-administration disparity in case outcomes was a product of random variation. Finally, the identity of the appellee, whether it was a defendant or plaintiff, is also a significant factor despite the small number of appeals initiated by defendants (a total of twenty-three cases); plaintiffs were only about one-fourth as likely to prevail on appeal as defendants.

The results of the regression for the appellate cases differ from those of the lower courts with respect to the influence of presidential administration and judicial ideology. These differences derive largely from the structural differences at the appellate level. First, the added layer of case selection (only about a quarter of NEPA cases were appealed) narrows the range of cases based on likelihood of success.¹⁶⁹ Thus, while the number of cases that could be appealed may have been higher during the Bush Administration, the likelihood of prevailing may change very little if appellees selected cases with similar likelihoods of succeeding during both administrations.¹⁷⁰ The weak statistical significance of the coefficient for presidential administration is consistent with these selection effects. Second, the role of ideology on three-judge panels is complicated both because judges with divergent ideologies influence each other and because a strong norm of unanimity

168. We conducted a power analysis on the data using a two-tailed test and the “powerlog” command in Stata; it estimated that a sample size of 112 would have a power of 0.90.

169. John M. de Figueiredo, *Strategic Plaintiffs and Ideological Judges in Telecommunications Litigation*, 21 J.L. ECON. & ORG. 501, 503–04 (2005); Theodore Eisenberg, *Testing the Selection Effect: A New Theoretical Framework with Empirical Tests*, 19 J. LEGAL STUD. 337, 337–38 (1990) [hereinafter Eisenberg, *Selection Effect*]; Theodore Eisenberg & Henry S. Farber, *Why Do Plaintiffs Lose Appeals? Biased Trial Courts, Litigious Losers, or Low Trial Win Rates*, 15 AM. L. ECON. REV. 73, 105 (2013).

170. Eisenberg, *Selection Effect*, *supra* note 169, at 338 (affirming the importance of selection effects on appeal).

exists among circuit judges.¹⁷¹ Together, these differences tend to reduce the influence of judicial ideology on mixed panels, which predominate in circuits with relatively balanced numbers of judges based on political affiliation. A moderation of ideological influence is precisely what we observe—only modest differences in the coefficients for ideologically mixed panels that lack statistical significance.¹⁷² Interestingly, the results for ideologically uniform panels were mixed: The coefficient for all Republican-appointed panels does not differ meaningfully in absolute terms, whereas the one for all Democratic-appointed panels is higher by a factor of two; unfortunately, the statistical power was limited in both cases by the small sample sizes.¹⁷³ In sum, the only cases for which judicial ideology could be a significant factor at the appellate level were those with all Democratic-appointed judges on the panel.¹⁷⁴

Three factors at the appellate level remain important—whether the case was filed in the Ninth Circuit, whether the plaintiff was an environmental organization, and whether the appellee was a defendant. The persistence of circuit effects at the appellate level in the Ninth Circuit highlights the importance of a circuit having a large share of the cases because the number of cases with ideologically uniform three-judge panels scales with the total number of cases.¹⁷⁵ Further, if there is an imbalance in the number of Republican and Democratic judges in a circuit, this will elevate the number of panels dominated by judges with the political affiliation in the majority. The Ninth Circuit is an outlier on both counts—it heard more than 50% of

171. This norm is clearly evident in our sample data: Dissents were filed in just 5.5% of the cases. See Sean Farhang & Gregory Wawro, *Institutional Dynamics on the U.S. Court of Appeals: Minority Representation Under Panel Decision Making*, 20 J.L. ECON. & ORG. 299, 307 (2004) (observing that the norm of consensus on appellate panels stems from “a view among judges that unanimous court opinions promote the appearance of legal objectivity, certainty, and neutrality, which fosters courts’ institutional legitimacy”).

172. The baseline for the regression is a panel with two Republican-appointed judges and one Democratic. The results in Table 3 show that the increase in plaintiff success rate above this baseline for a panel with two Democratic-appointed judges and one Republican is less than 30% and that it is not statistically significant.

173. Because of the adverse combinatorics, uniform panels were relatively rare in our sample, representing thirty-seven and fifty-two cases for the all Republican-appointed and all Democratic-appointed panels, respectively.

174. While the coefficient in the regression is not statistically significant at the 5% level, a much larger study would have to be conducted to achieve the necessary statistical power given that fifteen years of data produced just fifty-two cases with all Democratic-appointed panels. However, the sample size, which represents roughly two-thirds of the 2001 to 2015 appeals, gives us sufficient confidence to treat the coefficient as meaningful and not a statistical fluke.

175. By contrast, the small number of NEPA cases heard in most circuits (typically less than one case per year) reduces the probability of having more than a couple of ideologically uniform panels to essentially zero.

the NEPA appeals and 59% of its appellate judges were appointed by Democratic presidents.¹⁷⁶ With these statistics, it should come as no surprise that 65% of the NEPA appeals nationally with majority-Democratic panels and 83% of those with all Democratic-appointed panels were in the Ninth Circuit. Moreover, *within* the Ninth Circuit, 73% of the NEPA appeals were heard by majority Democratic-appointee panels and 25% were heard by all Democratic-appointee panels (roughly double the rate, on average, if there were equal numbers of Democratic- and Republican-appointed judges).¹⁷⁷ Accordingly, the elevated success rates of plaintiffs on appeal were driven by rudimentary statistics associated with the Ninth Circuit's location in the western United States, large geographic scale, and bias towards Democratic-appointed appellate judges.

The statistics for appeals initiated by defendants are similarly skewed towards the Ninth Circuit, which heard 83% of these appeals, as well as the Bush Administration, during which 75% of the defendant-initiated appeals were filed. However, all Democratic-appointed panels were only modestly over-represented in the defendant-initiated appeals and the absolute number (five cases) was small. Ultimately, the limited number of defendant-initiated appeals limits what we can infer beyond that defendants appear to have a significant advantage over plaintiffs on appeal. The final factor, the higher success rates of environmental plaintiffs on appeal, is important because it underscores the relative merits of their claims and thus provides further evidence against assertions that environmental plaintiffs file NEPA lawsuits for purely strategic ends and in spite of the dubious legal grounds for their claims.

III. IMPLICATIONS FOR NEPA AND ADMINISTRATIVE PROCEDURE

This Part examines the implications of our results for the debates surrounding NEPA, factors that determine the influence of judicial ideology in administrative challenges, and the limits of augmented administrative procedures. Section A reassesses common critiques of NEPA and the litigation surrounding it in light of our findings. Section B discusses the

176. In our full sample, 49% of the judges were appointed by Democratic presidents and 51% were appointed by Republican presidents. The split in the D.C. Circuit was close to the national average—47% versus 53% for Democratic- and Republican-appointed judges, respectively; however, the split in the Tenth Circuit was 41% versus 59% for Democratic- and Republican-appointed judges, respectively.

177. By contrast, only a single appeal was heard by an all Democratic-appointed panel in the D.C., Tenth, or Sixth Circuits, which were the only other circuits with more than fifteen cases in our sample.

factors that mediate the interplay of presidential politics and the influence of judicial ideology in NEPA litigation. Finally, section C discusses the implications of our findings for other forms of augmented administrative procedures, focusing on enhanced procedures reflected in the recent proliferation of executive orders and pending legislation that expand requirements for regulatory impact assessments.

A. The Lack of Empirical Support for Critics' Claims Against NEPA

Our findings negate much of the conventional wisdom promoted by critics of NEPA. In conjunction with data on NEPA compliance, we find that the vast majority of agencies' decisions that have the potential to significantly impact the environment require only perfunctory review under CEs or relatively streamlined reviews under EAs; in comparison, the number of EISs prepared is tiny and has been gradually declining over the last decade or so.¹⁷⁸ The number of cases filed under NEPA has remained relatively constant, with about 100 cases filed in district courts annually (about 35% of which settle) and roughly twenty-five appeals. Given that the number of federal actions potentially subject to NEPA is roughly 100,000 or so annually,¹⁷⁹ litigation rates are exceedingly low; even among actions requiring EISs, which pose the greatest potential threats to the environment, on average 20% are challenged¹⁸⁰ and just 13% are actually litigated.¹⁸¹

These numbers represent national averages that obscure the highly skewed nature of NEPA litigation that this and previous studies have exposed. For most federal agencies, a NEPA lawsuit is a rare event and claims that NEPA poses a significant burden have little basis in fact. For the subset of federal land and natural resource management agencies that account for three-quarters of the NEPA cases filed, the implications are more mixed. The rates of litigation relative to the number of EISs prepared by these agencies (see Table 1 above) suggest that litigation rates are roughly proportional to covered federal actions for the BLM, substantially lower for the USACE, and to varying degrees substantially higher for the USFS, FWS, and NMFS.

178. See Karkkainen, *supra* note 7, at 348 (characterizing the number of federal actions each year that trigger EIS preparation duties “a vanishingly small number given the scale and scope of federal operations”).

179. See discussion *supra* Part I.A.

180. See J. CLARENCE DAVIES & JAN MAZUREK, POLLUTION CONTROL IN THE UNITED STATES: EVALUATING THE SYSTEM 163 (2014) (“The *percentage* of EISs challenged in court has remained relatively stable, . . . fluctuating between 15 and 20 percent of all EISs filed.”).

181. See discussion *supra* Part I.A.

However, if we apply the national averages, a little more than 25% of EISs issued by the USFS are challenged and 18% are actually litigated. These percentages are significant particularly as the total number of cases filed against the USFS averages about thirty-five each year. In the case of the FWS and NMFS, the litigation rates are higher but the total number of EISs is low (averaging just eight and three EISs per year, respectively). Thus, in absolute terms, the burden from NEPA for either of these agencies, particularly considering parallel requirements under the Endangered Species Act,¹⁸² is not likely to be significant. Taken together, given the small percentage of actions for which agencies prepare time-intensive EISs, in practice only the USFS is subject to a volume of NEPA litigation that raises the potential for substantial added administrative burdens on the agency.¹⁸³

The low frequency and implied selectivity of NEPA litigation are reflected in the relative success of environmental plaintiffs. Environmental organizations prevailed at consistently higher rates than other plaintiffs filing NEPA actions, and their success in court was comparable to or exceeded that of plaintiffs generally in administrative challenges.¹⁸⁴ By these benchmarks, the merits of NEPA challenges filed by environmental plaintiffs are inconsistent with claims that NEPA suits are filed merely to hold up agency action and lack legitimate legal grounds. The high success rates of environmental plaintiffs, who prevailed in about 45% of their cases during the Bush Administration, is further evidence countering the charge that they used NEPA for purely strategic objectives. To the extent that NEPA is used purely to hold up government action, one would expect this tactic to occur more frequently with administrations less committed to environmentally conscientious compliance with NEPA and CEQ mandates. Yet, we observe just the opposite—on average, the merits of NEPA claims were substantially stronger during the Bush Administration.

A principal reason that NEPA has not overburdened agencies is that the CEQ regulations authorize agencies to tailor the level of environmental

182. The Endangered Species Act requires agencies proposing to take actions that are likely to jeopardize listed species or adversely modify their critical habitat to consult with the FWS or NMFS in the preparation of a biological opinion that recommends less damaging alternatives. 16 U.S.C. § 1536(a)(2) (2012). A finding of a lesser likelihood of jeopardy or adverse modification can justify the preparation of less comprehensive documentation.

183. The USFS's expanded use of CEs since the mid-2000s may mitigate these burdens, particularly in light of how rarely CEs are challenged; however, the USFS must be careful not to abuse this option. *Native Ecosystems Council v. Weldon*, No. CV 16-106-M-DWM, 2016 WL 4591897, at *2 (D. Mont. Sept. 2, 2016) (observing that a CE "is not an 'escape NEPA free' card"); deWitt & deWitt, *supra* note 65, at 172.

184. See sources cited *supra* note 145.

review to the nature of the action and its likely effects. The courts have endorsed this approach by allowing agencies to determine, subject to arbitrary and capricious review,¹⁸⁵ whether a proposal requires an EA or an EIS¹⁸⁶ or is appropriately covered by a CE.¹⁸⁷ NEPA procedures, therefore, are calibrated according to the likelihood that a proposal will have significant environmental impacts. This approach has succeeded, in significant part, because environmental plaintiffs have limited resources and are constrained by countervailing political considerations. These realities strictly limit environmental groups to filing cases with compelling facts or the potential to set valuable precedent for NEPA procedures beyond the specifics of the particular case.

B. Presidential Politics and Judicial Review of NEPA Compliance

We observe two striking patterns in case outcomes across the Bush and Obama administrations. First, plaintiffs prevailed at much higher rates during the Bush Administration than the Obama Administration at both the district court (39% versus 20%, respectively) and appellate levels (28% versus 16%, respectively). Second, the influence of judicial ideology was much greater during the Bush Administration. This is clearly evident in the district court and appellate data, but the degree of convergence was more dramatic at the appellate level. The difference in plaintiff success rates between Democratic- and Republican-appointed district judges declined from 17% to 10% across the two administrations versus, at the appellate level, a drop from 20% to 2% between majority Democratic- and majority Republican-appointed panels across the two administrations.¹⁸⁸ Importantly, this change cannot be attributed to variation in plaintiffs filing cases, as this convergence is not observed in the subsets of cases with exclusively either environmental or non-environmental plaintiffs.¹⁸⁹ Both of these changes, one absolute and the other

185. 5 U.S.C. § 706(2)(A) (2012).

186. 40 C.F.R. §§ 1501.4, 1508.9 (2017).

187. *Id.* § 1508.4.

188. During the Bush Administration, the difference in plaintiff success rates between Democrat- and Republican-appointed district judges was 17% (48% and 31%, respectively) versus 10% (24% and 14%, respectively) during the Obama Administration. At the appellate level, during the Bush Administration the difference in plaintiff success rates between majority Democrat- and majority Republican-appointed panels was 20% (38% and 17%, respectively) versus 2% (17% and 15%, respectively) during the Obama Administration.

189. In the case of the environmental plaintiffs, the split between Democratic- and Republican-appointed judges in rates at which plaintiffs prevailed remained static at 13%, whereas for non-environmental plaintiffs it remained static at roughly 6%.

relative, highlight the influence of presidential politics and circuit effects on judicial review. The latter relative change is of particular importance, however, because it exposes changes in judicial deference across the two administrations that cannot be explained by differences in the characteristics of the cases.¹⁹⁰

Despite the dramatic shifts in case outcomes across administrations, the influence of the presidential administration is not a statistically significant factor at the appellate level, unlike the district court sample. We believe the explanation for this result centers on the alignment of the statutory mandate of NEPA with the politics of the presidential administration and the ideological commitments of the judge or judges hearing each case. As one of the leading federal environmental statutes, NEPA is closely associated with liberal Democratic goals, which in the current era of political polarization, conflict with conservative Republican orthodoxy. The liberal policies of NEPA processes create the potential for judicial ideology to be split between, neutral towards, or in alignment with the party politics of the administration in power and the statutory mandate of NEPA.

It is easiest to understand this dynamic through four basic scenarios reflected in our data, namely, cases filed during each administration with either Democratic- or Republican-appointed judges. Starting with the Bush Administration, Republican judges were sympathetic to the Administration and unsympathetic to the liberal goals of NEPA (both factors aligning *against* environmental plaintiffs), whereas Democratic judges were sympathetic to the goals of NEPA but unsympathetic to the Administration (both factors aligning *in favor* of environmental plaintiffs). By contrast during the Obama Administration, Republican judges were unsympathetic to NEPA's goals and to the Administration (both factors essentially neutral towards environmental plaintiffs), whereas Democratic judges were sympathetic to both (one factor favoring and the other opposing environmental plaintiffs). As a consequence, the ideological commitments of the judges are either split between the parties or neutral towards them, which diminishes the influence of judicial ideology.

These four scenarios apply to district court judges who hear cases on their own but they do not reflect the more complex interactions between judges that occur on appellate panels. Individually, we expect ideological alignment to have a similar impact on circuit judges but our regression in Table 3 indicates that the direct influence of ideology is obscured when judges hear cases as three-judge panels. The ideological makeup of circuit panels alone was not statistically significant in our regressions, and yet we observe a

190. If only the population of cases were changing, the success rates of plaintiffs might change but this alone could not affect differences based on judicial ideology.

dramatic convergence in the rates at which plaintiffs prevailed between panels with majority Democratic- and majority Republican-appointed judges during the Obama Administration. We infer from this that the interplay between presidential politics and judicial ideology in appeals is statistically significant only when case outcomes are aggregated at the circuit level.

This observation raises the question of what circuit-level attributes mediate the interplay of presidential politics and judicial ideology. We believe that three mutually reinforcing factors are important—all of which center on the Ninth Circuit, which is both an “outlier” relative to other circuits and a dominant venue in its own right. Two of the factors are straightforward, namely, the large number of NEPA cases filed in the Ninth Circuit and the roughly 60% to 40% split between Democratic- and Republican-appointed appellate judges in the Circuit. The third factor concerns the combinatorics of three-judge panels and how it amplifies the impact of the first two factors. In essence, because most circuits have very few NEPA appeals and ideologically uniform panels are relatively rare (about 12% of the cases), the Ninth Circuit for statistical reasons alone should account for roughly half of the all-Democratic-appointee panels. Add to this the skew of the Ninth Circuit towards Democratic-appointed judges and it is unsurprising that the Ninth Circuit accounted for 83% of the appellate panels nationally with exclusively Democratic-appointed judges.

The interaction we observe between presidential politics and judicial ideology at the district court level is likely to apply beyond NEPA. However, empirical studies of judicial review under other statutes, particularly those aligned ideologically with Republican politics, must be conducted to substantiate this inference. The circuit-level effects we observe at the appellate level are conditional—the degree to which they occur will depend on the distribution of cases across circuits and the balance of Democratic- and Republican-appointed judges in each circuit. Litigation under NEPA, fortuitously, provides a context in which circuit-level effects were magnified by the disproportionate share of cases and the substantial majority of Democratic-appointed appellate judges in the Ninth Circuit. For example, while we would expect to observe similar results for other natural resource statutes, such as the Endangered Species Act and the National Forest Management Act, the necessary preconditions may or may not exist for other environmental laws or statutes in other areas of law. This study demonstrates that circuit-level effects can significantly impact case outcomes and should be factored into our understanding of how the circuit structure of the judiciary and the ideological balance of judges within circuits affect judicial review of agency action. The importance of these factors also exposes the structural contingencies of judicial oversight and how they mediate the influence of

judicial ideology in administrative cases. In doing so, it enhances our understanding of the institutional frameworks and political forces that shape the effectiveness of the checks and balances provided by an independent judiciary.

C. The Asymmetries of Environmental and Economic Review Statutes

NEPA has served as a model for economic regulatory review statutes and executive orders premised on ensuring that the relationship between the economic costs and benefits of regulations is adequately considered.¹⁹¹ The politics surrounding the economics of regulation have escalated under the Trump Administration and current Congress, which together are taking regulatory reform to an extreme. The Regulatory Accountability Act (“RAA”), pending legislation that has bipartisan support in Congress, exemplifies this trend. It incorporates an array of procedures for conducting economic analyses and provides broad rights of administrative and judicial review.¹⁹² Substantively, if the bill were adopted, agencies would have to ensure that, with limited exceptions, they adopt “the most cost-effective rule that . . . meets relevant statutory objectives.”¹⁹³ Further, while the applicability of existing laws mandating economic impact analyses is limited to “significant” or “major” rules,¹⁹⁴ the RAA contains provisions that implicate a far wider range of regulations.¹⁹⁵

191. See GLICKSMAN & LEVY, *supra* note 9, at 381–82.

192. Regulatory Accountability Act, S. 951, 115th Cong. § 3(3) (2017) (to be codified at 5 U.S.C. § 553(b)–(f)). For example, the RAA affords “interested persons” the right to petition an agency to hold a formal hearing on high-impact rules if “the proposed rule is based on conclusions with respect to 1 or more specific scientific, technical, economic, or other complex factual issues that are genuinely disputed” that would be likely to affect the costs and benefits of the rule or whether it would achieve statutory purposes. *Id.* (to be codified at 5 U.S.C. § 553(e)(1)(B)(i)(I)).

193. *Id.* (to be codified at 5 U.S.C. § 553(f)(1)(A)(ii)). Although many existing impact analysis requirements are purely procedural, some important ones are not. *See, e.g.*, Unfunded Mandates Reform Act, 2 U.S.C. § 1535(a) (2012) (requiring agencies to “select the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule”); Exec. Order No. 12,866 § 1(b)(5), 3 C.F.R. § 638 (1994), *supplemented by* Exec. Order No. 13,563, 3 C.F.R. § 215 (2012) (agencies must design regulations “in the most cost-effective manner to achieve the regulatory objective”).

194. Major rules are typically defined as those expected to generate expenditures or have an impact of \$100 million or more each year on the economy. *See, e.g.*, 2 U.S.C. § 1532(a) (2012); Exec. Order No. 12,866 § 3(f)(1), 3 C.F.R. § 638.

195. The bill encompasses regulations that are likely to cause “significant adverse effects on competition, employment, investment, productivity, innovation, public health and safety, or the ability of United States-based enterprises to compete with foreign-based enterprises in domestic

This new generation of regulatory review laws is likely to prolong the six to eight years it typically takes to complete a rulemaking,¹⁹⁶ a process that can take much longer if a rule is controversial.¹⁹⁷ Although numerous factors contribute to the duration of rulemaking processes,¹⁹⁸ augmented economic review procedures are widely cited as a major contributing factor.¹⁹⁹ The pending RAA contains provisions that appear to be specifically designed to prolong rulemaking processes by, for example, affording “interested persons” the right to petition an agency to hold a formal “public hearing” that includes lengthy witness testimony and cross-examination²⁰⁰ for high-impact rules.²⁰¹ These provisions have the potential not only to add procedures

and export markets.” S. 951, § 2(5) (to be codified at 5 U.S.C. § 551(18)(C)). Other existing economic assessment requirements are similarly subject to multiple triggers. Executive Order 12,866’s definition of a “significant regulatory action,” for example, includes rules that “[c]reate a serious inconsistency or otherwise interfere with an action taken or planned by another agency,” “[m]aterially alter the budgetary impact of entitlements, grants, user fees, or loan program or the rights and obligations of recipients thereof,” or raise novel legal or policy questions arising out of legal mandates, presidential priorities or the Order’s priorities. Exec. Order No. 12,866 § 3(f), 3 C.F.R. § 638; *see also* 5 U.S.C. § 603(a) (2012) (the RFA applies to every rule subject to notice and comment rulemaking); 44 U.S.C. § 3507(d) (2012) (the PRA applies to requirements to collect information contained in a proposed and final rule); 44 U.S.C. § 3516 (2012) (the Information Quality Act (“IQA”) applies to “information disseminated by Federal agencies”); MAEVE P. CAREY, CONG. RESEARCH SERV., R43056, COUNTING REGULATIONS: AN OVERVIEW OF RULEMAKING, TYPES OF FEDERAL REGULATIONS, AND PAGES IN THE FEDERAL REGISTER 8 (2016).

196. Richard J. Pierce, Jr., *Rulemaking Ossification Is Real: A Response to Testing the Ossification Thesis*, 80 GEO. WASH. L. REV. 1493, 1496 (2012).

197. *See* Royal C. Gardner, *Public Participation and Wetlands Regulation*, 10 UCLA J. ENVTL. L. & POL’Y 1, 6 n.28 (1991) (“Some informal rulemakings can take up to ten years to complete.”); Sidney Shapiro, Elizabeth Fisher & Wendy Wagner, *The Enlightenment of Administrative Law: Looking Inside the Agency for Legitimacy*, 47 WAKE FOREST L. REV. 463, 464 (2012) (arguing that as a result of rulemaking ossification, “important and controversial rules usually take five or more years to make and sometimes even a decade or longer”).

198. *See* Connor Raso, *Agency Avoidance of Rulemaking Procedures*, 67 ADMIN. L. REV. 65, 109 (2015) (highlighting “four problems: 1) analytic requirements imposed by Congress . . . ; 2) analytic requirements imposed by the White House; 3) congressional review; and 4) judicial review.”).

199. *See, e.g.*, Jeffrey S. Lubbers, *The Transformation of the U.S. Rulemaking Process—For Better or Worse*, 34 OHIO N.U. L. REV. 469, 473–76 (2008) (attributing rulemaking ossification in part to the enactment of legislation imposing “new analytical requirements modeled on” the EIS process under NEPA and to similar requirements imposed by executive orders such as Executive Order 12,866); Thomas O. McGarity, *Some Thoughts on “Deossifying” the Rulemaking Process*, 41 DUKE L.J. 1385, 1404–05 (1992). *But cf.* Raso, *supra* note 198, at 110 (arguing that “the RFA and UMRA are unlikely to contribute to ossification because agencies avoid these requirements quite frequently and because these statutes do not seem to delay rulemaking”).

200. S. 951, § 3(3) (to be codified at 5 U.S.C. § 553(e)(3)(B)(iii)(III)).

201. *Id.* (to be codified at 5 U.S.C. § 553(e)(1)(A), (C)(i)).

widely viewed as unnecessary and counterproductive; they also establish broad criteria for triggering cumbersome hearing procedures. Essentially, any issue implicating genuinely disputed complex factual questions that could affect a rule's costs and benefits or whether it achieves the applicable statutory purposes could be grounds for requiring an agency to grant a petition for a formal public hearing.²⁰²

Beyond the addition of formal processes, economic review laws fail to incorporate flexible frameworks that afford agencies discretion to determine the level of economic review required. As we have seen, the scope of NEPA analyses vary widely and most entail abridged assessments under CEs and EAs rather than full-blown EISs. Neither the Trump executive orders nor the existing economic review legislation contain procedures for abbreviated assessments analogous to NEPA's CEs or EAs, such as a mechanism analogous to NEPA's mitigated FONSI that allows an agency to soften the economic impact to avoid more elaborate impact analysis requirements. Under the RFA, for example, regulatory flexibility analyses follow one-size-fits-all procedures and criteria,²⁰³ and the same is true of the cost-benefit analyses under the key executive orders²⁰⁴ and other economic review statutes.²⁰⁵ The pending RAA adopts a similar approach but with far more extensive procedures. Yet, without the tailoring mechanisms that have evolved under NEPA, economic review laws are far more likely to increase the costs and duration of agency rulemaking, and a growing body of evidence suggests that they already do²⁰⁶ and that statutes such as the RAA will exacerbate these problems.²⁰⁷

This flexibility is of particular importance because NEPA has taken on a "quasi-constitutional status"²⁰⁸ that some commentators have likened to a

202. *Id.* (to be codified at 5 U.S.C. § 553(e)(1)(B)(i)) (high-impact rules). The bill is more accommodating for major rules. The grounds for denial of a public hearing for a major rule would be a reasonable determination by the agency that a hearing would not advance consideration of the proposed rule by the agency, or would unreasonably delay completion of the rulemaking. *Id.* (to be codified at 5 U.S.C. § 553(e)(1)(C)(ii)).

203. 5 U.S.C. §§ 603–609 (2012). The Act allows agencies to avoid preparing a regulatory flexibility analysis if an agency head certifies that a rule will not have a significant economic impact on a substantial number of small entities. *Id.* § 605(b).

204. *E.g.*, Exec. Order No. 12,866 § 6(a)(3)(C), 3 C.F.R. § 638 (1994). The Order does allow for truncated procedures "[i]n emergency situations or when an agency is obligated by law to act more quickly than normal review procedures allow." *Id.* § 6(a)(3)(D).

205. *See* 2 U.S.C. §§ 1532–1536 (2012).

206. *See supra* notes 197–200 and accompanying text.

207. *See supra* notes 200–03 and accompanying text.

208. Karkkainen, *supra* note 7, at 333–34 (claiming that the duty to prepare an EIS "is as fundamental to contemporary administrative practice as an agency's duty under the APA to provide notice and opportunity for public comment prior to issuing rules"); Merrill, *supra* note 7,

“super statute” because its institutional and normative principles have become so broadly influential.²⁰⁹ This status is important because judges are more likely to construe and apply NEPA in a manner that limits agency discretion when it has the potential to subvert NEPA’s goals.²¹⁰ Since NEPA’s passage, courts have demonstrated a distinctive willingness to intervene when agencies give NEPA procedures short shrift.²¹¹ Over time the RAA, and other economic review statutes, have the potential to be viewed as similarly foundational, much as they already do with the APA, and this posture could lead courts to subject agency compliance to a heightened level of scrutiny that would limit agency discretion and further encourage challenges to agency rules. In addition, while the RAA and other regulatory impact statutes contain substantive provisions, this elevated status could erode the greater deference judges afford substantive agency decisions.²¹²

at 1039–40 (characterizing NEPA and the APA as “framework” statutes whose “rather spare” provisions have generated a “common law of administrative procedure”); Metzger, *supra* note 7, at 479.

209. William N. Eskridge, Jr. & John Ferejohn, *Super-Statutes*, 50 DUKE L.J. 1215, 1242–43 (2001) (citing the Endangered Species Act, which is closely analogous to NEPA in many respects, as an example of a super-statute).

210. Cf. Richard B. Stewart, *The Development of Administrative and Quasi-Constitutional Law in Judicial Review of Environmental Decisionmaking: Lessons from the Clean Air Act*, 62 IOWA L. REV. 713, 718 (1977) (making this point with respect to the Clean Air Act).

211. *Calvert Cliffs’ Coordinating Comm., Inc. v. U.S. Atomic Energy Comm’n*, 449 F.2d 1109, 1111 (D.C. Cir. 1971) (in a now famous passage, applying NEPA so that “important legislative purposes, heralded in the halls of Congress, are not lost or misdirected in the vast hallways of the federal bureaucracy”). Then-Professor Scalia derided this conception of NEPA. See Antonin Scalia, *The Doctrine of Standing as an Essential Element of the Separation of Powers*, 17 SUFFOLK U. L. REV. 881, 897 (1983) (calling the loss or misdirection of statutory law “a good thing”).

212. See DeLong, *supra* note 15, at 417 (“The courts are most comfortable when assessing the procedural regularity of agency action.”); Alan M. Dershowitz, *Indeterminate Confinement: Letting the Therapy Fit the Harm*, 123 U. PA. L. REV. 297, 323 (1974) (“Courts feel more comfortable placing procedural, rather than substantive, limitations on legislatively authorized programs.”); Stark & Wald, *supra* note 15, at 361 (claiming that courts in administrative law cases tend to enforce procedural mandates more strongly than substantive requirements); Perry A. Zirkel, *Building an Appropriate Education from Board of Education v. Rowley: Razing the Door and Raising the Floor*, 42 MD. L. REV. 466, 467 n.9 (1983) (“‘Substance’ and ‘procedure’ are inevitably overlapping terms, and . . . the courts are more comfortable dealing with the latter.” (quoting David Kirp, William Buss & Peter Kuriloff, *Legal Reform of Special Education: Empirical Studies and Procedural Proposals*, 62 CALIF. L. REV. 40, 81 (1974))).

To date, the added costs and delays associated with legal challenges to agency compliance with economic review statutes²¹³ and executive orders²¹⁴ have been largely avoided because they either preclude or strictly limit judicial review.²¹⁵ The RAA, however, departs from the narrow grants of judicial review found in existing regulatory review laws. It gives litigants the right to challenge the scope and substance of an economic impact statement,²¹⁶ as well as other specific procedural requirements,²¹⁷ and similar to NEPA,²¹⁸ courts would have the authority to remand a rule back to the agency to cure procedural or substantive defects.²¹⁹ The RAA therefore would make judicial challenges freely available to an unprecedented degree.

Together the structural differences between NEPA and the economic review laws raise the specter that the conditions responsible for facilitating efficient compliance with NEPA and constraining litigation will be eroded or absent, creating both legal and practical concerns. First, as described above, NEPA is calibrated in a way that the RAA and other statutes are not. Whereas NEPA has three tiers of environmental reviews, existing and proposed economic review laws have a single tier that encompasses a broad range of

213. 2 U.S.C. § 1571(b) (2012) (UMRA provision precluding judicial review of the content in assessments detailing regulatory impacts on state and local government); 5 U.S.C. § 611 (2012) (RFA provision authorizing judicial review of alleged noncompliance with some of its provisions but not others); *Dithiocarbamate Task Force v. EPA*, 98 F.3d 1394, 1405 (D.C. Cir. 1996) (holding that courts are limited to precluding an agency from enforcing a rule issued in violation of the PRA). Courts addressing the justiciability of challenges to IQA compliance have mostly refused to address the merits. *See, e.g., Salt Inst. v. Leavitt*, 440 F.3d 156, 159 (4th Cir. 2006) (finding no standing to pursue IQA challenge and noting that the IQA does not create a legal right to have agencies rely on accurate information); *In re Operation of the Mo. River Sys. Litig.*, 363 F. Supp. 2d 1145, 1174–75 (D. Minn. 2004), *aff'd in part, vacated in part on other grounds*, 421 F.3d 618 (8th Cir. 2005) (review is unavailable because IQA requirements are committed to agency discretion by law for purposes of 5 U.S.C. § 701(a)(2)).

214. *See, e.g., Exec. Order No. 13,563* § 7(d), 3 C.F.R. § 215, 217 (2012) (stating that the Order does not create any substantive or procedural rights enforceable at law against the United States or its agents); *Exec. Order No. 12,866* § 10, 3 C.F.R. § 638, 649 (1994).

215. Even when direct review of augmented procedures is not available, however, the documents they generate become part of the rulemaking record and may be used to argue that agency action is substantively arbitrary and capricious. *See, e.g., 2 U.S.C. § 1571(a)(4)* (2012) (UMRA); 5 U.S.C. § 611(b), (d) (2012) (RFA).

216. Regulatory Accountability Act, S. 951, 115th Cong. § 3(2) (2017).

217. *Id.* (granting the right to challenge an agency's failure to publish the framework for assessment of a major or a high-impact rule).

218. In at least one respect, judicial review of procedural compliance under the RAA would be narrower than under NEPA. Review of an agency's determination of whether a rule is a major rule that is subject to impact analysis requirements and that may require a public hearing would be unavailable. *Id.* § 4(3).

219. *Id.* § 3(2).

federal actions.²²⁰ In addition, while practical or strategic considerations limit challenges to invocation of a CE or reliance on an EA for small-scale projects under NEPA, this is not necessarily true of regulatory reviews. In particular, because economic reviews often center on impacts concentrated on regulated entities, as opposed to the diffuse public benefits associated with environmental measures that may result from NEPA compliance, the economic stakes are much more likely to justify incurring the high costs of a judicial challenge.

Second, the resources of the industry litigants most likely to file legal challenges under statutes like the RAA are much greater than those of the environmental organizations that dominate litigation under NEPA. Large regulated entities subject to major regulations will also have compelling profit-based incentives to challenge major regulations, even if only to delay their effective date. Similarly, although small businesses are less likely to have the resources to file suits on a routine basis, they can spread costs through suits by other businesses that may benefit them or rely on trade associations or entities like the U.S. Chamber of Commerce with sufficient resources to file lawsuits. In either case, whether by virtue of individual scale or collective pooling, the economic constraints on filing legal challenges under economic review laws are likely to be much less of an obstacle than those for NEPA.²²¹

220. The PRA, for example, applies to requirements to collect information contained in a proposed and final rule. 44 U.S.C. § 3507(d) (2012). The IQA applies to “information disseminated by Federal agencies.” Pub. L. No. 106-554, § 515(b), 114 Stat. 2763, 2763A-154 (2000).

221. Others have described this dynamic. For example, according to Professor Wasserman:

Perhaps the most salient reason for why industry is more likely to challenge agency action than groups that represent the public interest is that the former is better financed than the latter. The resource imbalance between these two entities may also handicap a public interest group’s ability to keep abreast of the technical intricacies and issues that inform agency rules or major adjudicatory decisions. These information costs thus also tend to limit public interest group participation in agency litigation. Additionally, differences in incentives between groups representing the two constituencies may skew participation in agency litigation.

Melissa F. Wasserman, *Deference Asymmetries: Distortions in the Evolution of Regulatory Law*, 93 TEX. L. REV. 625, 667 (2015) (footnote omitted); see also Rachel E. Barkow, *Insulating Agencies: Avoiding Capture Through Institutional Design*, 89 TEX. L. REV. 15, 22 (2010) (“[R]egulated industries are well-financed and well-organized, especially when compared to the general public and public interest groups. Industry groups are thus better positioned to monitor agencies closely and to challenge any and all agency decisions that will negatively affect them.” (footnote omitted)); Thomas Gremillion, *Environmental Defense v. Duke Energy Corporation*, 31 HARV. ENVTL. L. REV. 333, 345 (2007) (arguing that “a surge in litigation expenses will clearly

Third, if the courts follow the lead of the Supreme Court in the recent Clean Power Plan (“CPP”) litigation by liberally granting injunctive relief at an early stage of litigation, the economic and strategic incentives for bringing challenges under the RAA will be enhanced. The Court in that case stayed EPA’s regulations restricting greenhouse gas emissions from existing power plants before any lower court had the opportunity to address the merits, and it did so without explanation.²²² At the same time, the Court has sent a clear signal that lower courts have been too lenient in granting injunctions under NEPA and admonished them to ratchet up the showing needed to demonstrate irreparable injury.²²³ Predictably, the CPP stay has prompted regulated entities to seek stays of other Clean Air Act regulations while litigation is pending. If that strategy succeeds, it would likely only be a matter of time before economic interests make similar arguments under a statute like the RAA.

Fourth, the interplay of presidential politics and the mandates of regulatory review laws stands to be a major factor in determining the effective stringency of judicial oversight and the impact of litigation. The requirements for economic assessments found in regulatory reform statutes reflect a largely partisan Republican ideology, suggesting that judicial review of agency compliance will be most common, and potentially disruptive, during Democratic administrations that view government regulation as serving important objectives even if it has significant economic impacts in the regulated sectors. Under such circumstances, when tensions exist between statutory goals of the RAA and presidential priorities, the framework from Part III.B predicts that judicial ideology will significantly impact the outcome of legal challenges. However, as we have shown, the degree to which judicial ideology is a factor depends on the distribution of cases across circuits and the ideological balance within them.

In the case of the economic review laws, different factors could moderate or escalate the influence of judicial ideology. A potentially moderating factor is the broad range of rules and agency decisions likely to be subject to legal challenge under statutes like the RAA. Economic impacts are both more generic and less geographically bounded than environmental ones, and important classes of environmental regulations exempted from NEPA, such

favor regulated industry, which has the financing to wage a legal war of attrition against government and public interest groups in multiple jurisdictions”). Cf. Joseph P. Tomain, *Policy, Politics, and Law*, 31 *UCLA L. Rev.* 1247, 1257 (1984) (book review) (“The cost-bearers of regulation are highly centralized, well financed . . .”).

222. *Basin Elec. Power Coop. v. EPA*, 136 S. Ct. 998 (2016) (mem.). For discussion of the unprecedented nature of the stay decision, see Lisa Heinzerling, *The Supreme Court’s Clean-Power Power Grab*, 28 *GEO. ENVTL. L. REV.* 425, 425 (2016).

223. *Winter v. NRDC*, 555 U.S. 7, 22 (2008).

as Clean Air Act regulations, could be high-profile targets under economic review laws. This lack of constraints has the potential to distribute cases across a broader range of circuits than the handful that have dominated litigation under NEPA. That distribution would tend to mitigate the influence of judicial ideology because nationally Democratic- and Republican-appointed judges are evenly balanced. On the other hand, if the absence of constraints liberates plaintiffs to forum shop, it could concentrate cases in the most conservative circuits. Thus, while the enhanced influence of liberal judicial ideology in NEPA litigation was driven by the geographic overlap of federal public lands and endangered species issues in the Ninth Circuit, the degree to which judicial ideology could play a role in litigation under economic review laws is likely to be much more within the control of plaintiffs' lawyers.

The sources of concern noted above—the binary nature of regulatory reviews laws, the incentives and far greater resources of business plaintiffs, and the recent move towards granting early injunctive relief to regulated entities—along with a long history of industry opposition to government regulation all suggest that business interests are likely to use litigation aggressively. They also highlight the contingencies and precariousness of judicial ideology playing a constructive role in judicial review of agency action. Reasonable people will differ over whether the stringency of judicial oversight of the Bush Administration's compliance with NEPA was appropriate, or even whether the relatively non-ideological level of judicial review during the Obama Administration represents an appropriate benchmark. Our understanding of the policies during both administrations leads us to believe that the disparities in judicial oversight are justifiable and provide an example of judicial ideology playing a constructive role, but we recognize that this view cannot be separated from a variety of normative judgments about the role and importance of NEPA.

We also believe that there are important structural constraints on environmental plaintiffs, and plaintiffs generally who represent diffuse public interests, that limit recourse to the courts and the impact of judicial ideology on agency action. These resource and institutional constraints force such plaintiffs to be more selective in the cases they file, making it more likely for their claims to align with the purposes and requirements of the law, and reducing the potential for judicial overreach simply by virtue of the modest numbers of cases filed. However, both of these constraints are relaxed when the plaintiffs are regulated entities challenging regulations that impose substantial costs on them. This dynamic, along with the much greater potential for forum shopping under the new generation of economic review laws, expose important asymmetries between them and NEPA. In short, the

combination of legal and practical constraints that have mediated judicial review under NEPA will be either eroded or absent under regulatory review statutes such as the RAA. It is no small irony that the objections critics have leveled against NEPA—wasteful and costly delays in government actions driven by parochial interests—appear far more likely to occur under the economic review statutes they are advocating.²²⁴

224. At the same time that the Trump Administration and Republican congressional majorities have championed enhanced economic impact review requirements, they have supported narrowing the scope of NEPA mandates or exempting activities such as infrastructure development production from NEPA altogether. *See, e.g.*, Water Supply Permitting Coordination Act, H.R. 1654, 115th Cong. § 4(b)(4) (2017) (mandating expedited NEPA review of proposed water storage projects); Exec. Order No. 13,807 § 5(b)(iii), (e)(i)(D), 82 Fed. Reg. 40,463 (Aug. 15, 2017) (requiring federal authorizations for major infrastructure projects to be completed within ninety days of issuance of the record of decision by the lead federal agency, and directing CEQ to develop a list of actions to “enhance and modernize the Federal environmental review and authorization process,” including ensuring that agencies apply NEPA “in a manner that reduces unnecessary burdens and delays as much as possible”); National Environmental Policy Act Compliance, 83 Fed. Reg. 302 (Jan. 3, 2018) (advanced notice of proposed rulemaking seeking comments on ways in which the Forest Service can increase the efficiency of environmental analysis); Initial List of Actions to Enhance and Modernize the Federal Environmental Review and Authorization Process §§ 3(a), (c), 4, 82 Fed. Reg. 43,226, 43,227 (Sept. 14, 2017) (discussing CEQ’s response to Executive Order 13,807, which states its intent to revise or supplement existing guidance on matters such as the use of categorical exclusions, to issue additional guidance as CEQ deems necessary “to simplify and accelerate the NEPA process for infrastructure projects,” and to convene a working group to “identify impediments to the efficient and effective processing of environmental reviews and authorizations for infrastructure projects”); Exec. Order No. 13,766, 82 Fed. Reg. 8657 (Jan. 24, 2017); *see also* Darryl Fears, *Notes from Closed Meeting Show Interior Aims to Weaken Environmental Laws*, WASH. POST (Oct. 5, 2017), https://www.washingtonpost.com/news/energy-environment/wp/2017/10/05/notes-from-closed-meeting-show-how-interior-aims-to-weaken-environmental-laws/?utm_term=.bf8b6609f8aa (describing conference at which “the BLM and its guests discussed ways to water down NEPA”); Letter from Christine Harbin et al. to members of Congress (May 11, 2017), https://v6mx3476r2b25580w4eit4uv-wpengine.netdna-ssl.com/wp-content/uploads/2017/05/Transpo_Coalition_FINAL.pdf (letter to members of Congress from conservative organizations criticizing “[l]engthy and often duplicative environmental impact studies [that] increase project costs and drag project timelines,” and suggesting reforms such as “the removal of greenhouse gas emissions from the review process and limiting the scope and application of [NEPA] as well as other planning and analysis mandates” to “save time and reallocate limited tax dollars from paperwork and red tape to asphalt and concrete”). President Trump has pledged to create an office within CEQ to speed infrastructure projects by eliminating “outdated federal rules” such as the permitting processes that slowed approval of the Keystone XL and Dakota Access pipelines. *See* Camille von Kaenel, *Trump Decries ‘Painful’ Permitting, Bulky Enviro Reviews*, GREENWIRE (June 9, 2017), <https://www.eenews.net/stories/1060055833>. Other agencies have responded to President Trump’s executive orders mandating accelerated NEPA reviews. The Deputy Secretary of the Interior, David Bernhardt, for example, issued an order to implement Executive Order 13,807 with the aim of enhancing and modernizing the agency’s NEPA process so that NEPA reviews will “focus on issues that truly matter rather than amassing unnecessary detail.” DOI Streamlining National Environmental Policy Reviews and

IV. CONCLUSION

Our study of district and appellate court NEPA decisions demonstrates that, contrary to the assessments of NEPA's critics, the statute's procedural requirements rarely delay policies or projects. Judicial review is also found to be calibrated, such that the influence of judicial ideology, and the degree of scrutiny, varies with the ideological alignment of presidential politics and the statutory mandate under review. This dynamic is mediated by the distribution of cases across circuits and the ideological balance of judges within them. We find that, under a well-defined range of conditions, judicial checks can be most robust precisely when the risk of statutory subversion is greatest—that is when the ideology of the administration is in tension with a statutory mandate.

A comparison of NEPA with the expanding array of legal mandates that prescribe elaborate economic impact analyses illustrate the normative and practical implications of these observations. The raft of executive orders issued by the Trump Administration and new legislation pending in Congress have elevated the importance and potential impacts on agency decision-making of augmented economic reviews. The interplay we identify between presidential politics and judicial review provides new grounds for concern that, unlike NEPA, these policies could pose a much greater risk of disrupting and delaying agency decision-making processes. Further empirical study of judicial review under a range of statutes is needed to determine how broadly these findings apply to administrative challenges in general.

APPENDIX: DESCRIPTION OF EMPIRICAL METHODS AND PROTOCOLS

From an empirical standpoint, collecting data on NEPA cases is facilitated by their procedural simplicity. NEPA cases follow a foreshortened series of steps—transmittal of the administrative record to the court and filing of cross motions for injunctive relief, dismissal, or summary judgment. While settlement, abandonment, or a procedural defect may shortcut the process and minor variations in procedural timelines may occur (e.g., motions to stay cases pending external events), most NEPA cases are resolved on motions for summary judgment. Further, because administrative challenges are based

Implementation of Executive Order 13807 § 3, Order No. 3355 (Sept. 1, 2017), <https://elips.doi.gov/elips/0/doc/4581/Page1.aspx>. Among other things, the Order directs bureaus within the Department to limit EISs to no more than 150 pages (300 for “unusually complex projects”) and to establish a target to complete a final EIS within one year of issuance of a Notice of Intent to prepare one. *Id.* § 4(a)(1)–(2). It also directs bureau heads to identify “potential impediments to efficient and effective reviews for infrastructure and develop an action plan to address such impediments.” *Id.* § 4(d)(1)(A).

largely, and typically exclusively, on administrative records, district court proceedings are not burdened by drawn-out discovery battles. A judge's primary task is to evaluate the administrative record from the federal agency, the relevant legal authorities, and the arguments of the parties to determine whether to affirm or reverse the agency, in whole or part, and where a defect is found, to grant injunctive relief or remand the case to the federal agency for further consideration.

These procedural virtues are complemented by the relative simplicity and linguistic idiosyncrasies of NEPA claims. In particular, the distinctive legal terms associated with NEPA claims enable automated coding of cases and facilitate hand coding with few potential sources of ambiguity. Together, these characteristics make NEPA litigation a particularly attractive subject for empirical study.

A. NEPA Litigation Study Design and Methods

We adopted a two-part strategy for determining how we would code the cases.²²⁵ First, we coded a sample of about 200 district court cases at a high level of granularity (data on roughly 60 claims and subclaims were collected) to gain a rough assessment of the key variables and to determine which claims had the potential to generate meaningful statistics. As a complement to this sample, we used the NVivo software to auto code about 1,580 district court and 585 circuit court opinions²²⁶ drawn from the Westlaw federal courts database that referred to NEPA from 2001 through 2015.²²⁷ This coding evaluated the frequency of specialized legal terms used in NEPA claims and

225. Our data collection followed the principles of study design in the INTER-UNIVERSITY CONSORTIUM FOR POLITICAL & SOC. RESEARCH, *GUIDE TO SOCIAL SCIENCE DATA PREPARATION AND ARCHIVING* (5th ed. 2012) and the recommendations of recent legal scholarship. See Pauline T. Kim et al., *How Should We Study District Judge Decision-Making?*, 29 WASH. U. J.L. & POL'Y 83, 83–85 (2009).

226. For both the district court and circuit court cases, we compiled a large database of cases using the search-term phrase “National Environmental Policy Act” in the Westlaw “Federal Cases” database. This generated 1,967 district court cases and 842 circuit court cases. From these cases, we culled cases in which at least one substantive NEPA claim was raised (e.g., a challenge to a categorical exclusion or to the alternatives in environmental assessment); this second round of coding generated the 1,579 district court and 584 circuit court cases. Random samples were then taken for each database for use in hand coding of cases.

227. We used the Westlaw database for “All Federal Cases.” Cases were selected based on whether they included the phrase “National Environmental Policy Act.” This was purposefully over-inclusive and cases were subsequently culled based on more precise studies of their content. There is an apparent lag in the time that it takes district court cases to be added to the Westlaw database, which is evident in the low numbers of cases for 2015 and particularly 2016.

thus provided a complementary measure of the rates at which specific NEPA claims were raised.²²⁸ We also conducted numerous Chi² and regression analyses to determine which variables would be included in the larger study. Together, this preliminary work enabled us to identify ten variables for which data would be collected in the larger sample of 498 district court cases and 334 circuit court cases.

The sample data included information on the court and judge, parties to the litigation, the nature of the federal action, jurisdictional challenges, substantive challenges under NEPA, and the timing of a case. The list below provides a general description of the range of data collected:

- Court, judge, presidential administration (and party) that appointed the judge;
- Identity of parties to the litigation, classes of litigants (e.g., environmental organization, individual, government, business);
- Dates of court filings, motions, and opinions and duration of the litigation;
- Lead federal agency, other federal agencies (if any) involved in the NEPA process and type of federal action (e.g., federal permit, funding, or direction action);
- NEPA claims raised (e.g., adequacy of an environmental assessment), and disposition of claims (e.g., dismissal, settlement, decision on the merits);
- Nature of the relief (if any) provided by the court to successful plaintiffs (e.g. remand to agency, preliminary or permanent injunction).

The study data were drawn from three separate sources: (1) the federal judiciary's "Public Access to Court Electronic Records" (PACER) database, which contains case docket information and court filings dating back to roughly 2000;²²⁹ (2) the Westlaw database of published and unpublished federal court opinions;²³⁰ and (3) the Attributes of U.S. Federal Judges

228. In a subset of these cases, we were able to use the automated coding to determine whether the plaintiff or federal defendants prevailed. These cases provided a very efficient means of assessing the relative success of different types of NEPA claims, but this analysis is incomplete because it presumes (incorrectly) that all NEPA claims rise and fall together. Because of this, any associations observed are likely to be real, but the absence of such associations does not imply that none exist—as the lumping of claims together will obscure such associations.

229. The PACER database is available at PACER, <https://www.pacer.gov/> (last visited Mar. 15, 2018).

230. The Westlaw database for federal cases and opinions ("All Federal Cases") is available at WESTLAW, <https://1.next.westlaw.com> (click cases and then "All Federal Cases") (last visited Mar. 15, 2018).

Database compiled under the Judicial Research Initiative at the University of South Carolina.²³¹ In addition, we obtained a database from the Council on Environmental Quality with partially coded NEPA cases for the periods 2000–2009 and 2012–2014.²³² The CEQ data were particularly valuable because they contain cases settled or dismissed prior to a court decision on the merits; without this case information, it would have been exceedingly difficult to identify such cases given the limitations of the PACER and Westlaw databases. Unfortunately, because of inconsistencies in the case-coding methods, we ultimately did not use this database.

Use of several databases was essential because it enabled us to collect a large sample of unpublished opinions, which numerous studies have shown can differ from published decisions in systematic ways.²³³ Researchers have found, for example, that published district court opinions are generally more “liberal” than unpublished ones, and that ideological influences are greater in the former compared with the latter.²³⁴ The low rates at which judges actually rule on cases filed in district courts exacerbate these selection biases. In 2006, for example, less than half of the cases filed in district courts were resolved by some form of adjudication, with most of the remaining cases either being abandoned or settled.²³⁵ Moreover, given that cases are unlikely to settle randomly, fully-litigated cases will not be representative of all the cases that are filed. The presence of these selection effects demonstrates that studies limited to evaluating district court opinions, especially if solely published opinions, will generate misleading or unrepresentative results.

231. The Judicial Research Initiative is available at JUDICIAL RESEARCH INITIATIVE, <http://artsandsciences.sc.edu/poli/juri/attributes.htm> (last visited Mar. 15, 2018); we also obtained information from the federal judiciary site available at FEDERAL JUDICIAL CENTER, <http://www.fjc.gov/history/home.nsf/page/judges.html> (last visited Mar. 15, 2018).

232. The data were obtained through Horst Greczmeil, the Associate Director for NEPA Oversight at CEQ, which oversees an annual NEPA litigation survey. *NEPA Litigation*, *supra* note 12; *NEPA Litigation Surveys*, ENERGY.GOV, <http://energy.gov/nepa/downloads/nepa-litigation-surveys> (last visited Mar. 15, 2018).

233. See Michael Hannon, *A Closer Look at Unpublished Opinions in the United States Court of Appeals*, 3 J. APP. PRAC. & PROCESS 199, 212–14 (2001); Denise M. Keele et al., *An Analysis of Ideological Effects in Published Versus Unpublished Judicial Opinions*, 6 J. EMPIRICAL LEGAL STUD. 213, 219–20 (2009); Evan J. Ringquist & Craig E. Emmert, *Judicial Policymaking in Published and Unpublished Decisions: The Case of Environmental Civil Litigation*, 52 POL. RES. Q. 7, 10–11 (1999); Peter Siegelman & John J. Donohue III, *Studying the Iceberg from Its Tip: A Comparison of Published and Unpublished Employment Discrimination Cases*, 24 LAW & SOC’Y REV. 1133, 1144, 1156 (1990); Stephen L. Wasby, *Unpublished Decisions in the Federal Courts of Appeals: Making the Decision to Publish*, 3 J. APP. PRAC. & PROCESS 325, 333–36 (2001).

234. Keele, *supra* note 233, at 219–20.

235. Kim, *supra* note 225, at 99.

B. Descriptive Statistics for District and Circuit Court Cases

Table 4: Relative Frequency of Procedural and Supplemental Claims 2000–2015²³⁶

	Categorical Exclusion	Supplemental EIS	Tiering	Constitutional Standing	Prudential Standing	Ripeness	Mootness	Exhaustion
Number of Cases	205	250	88	642	91	166	141	119
Percent All Cases	13%	15.8%	5.6%	40.7%	5.8%	10.5%	8.9%	7.5%
Median	2	3	2.5	3	2	2	3	2
90 th %	11	14.5	8	21	11	10	12	6

Table 5: Relative Frequency of Environmental Assessment Claims 2000–2015²³⁷

	Alternatives	Cumulative Impacts	Mitigation	Indirect Impacts	Uncertainty	Intensity	FONSI
Number of Cases	355	278	162	119	87	71	683
Percent All Cases	22.5%	17.6%	10.3%	7.5%	5.5%	4.5%	<u>13.36%</u>
Percent of EA Claims	47.84%	37.47%	21.83%	16.04%	11.73%	9.57%	92.05%
Median	2	2.5	2	1	1	1	4
90 th %	9	10	6	4	3	2	19

Table 6: Relative Frequency of Environmental Impact Statement Claims 2000–2015

	Alternatives	Cumulative Impacts	Mitigation	Scope	Indirect Impacts	Uncertainty	Connected	Intensity
Number of Cases	587	398	247	173	160	147	138	111
Percent All Cases	37.2%	25.2%	15.6%	11.0%	10.1%	9.3%	8.74%	7.0%
Percent of EIS Claims	72.83%	49.38%	30.65%	21.46%	19.85%	18.24%	17.12%	13.77%
Median	2	2	2	1	1	1	1	1
90 th %	8	6	7	3	3	4	3	3

236. Note that the mean, median, and ninetieth percentile refer to the actual number of times that the specific claim is referred to in a case. For example, the 90th percentile indicates the number of times that the claim is referenced in this top tier of cases. These data are based on the database of 1,579 cases we compiled from the Westlaw database, 640 of which are unpublished cases.

237. Claims based on “controversial actions” and “segmentation” were raised in less than 3% of the district court cases and less than 7% of the district court cases in which challenges to EAs were raised.

Table 7: Relative Frequency of Procedural and Supplemental Claims in Appeals²³⁸

	Categorical Exclusion	Supplemental EIS	Tiering	Constitutional Standing	Prudential Standing	Ripeness	Mootness	Exhaustion
Number of Cases	47	93	30	219	30	56	57	35
Percent All Cases	8.05%	15.92%	5.14%	37.50%	5.14%	9.59%	9.76%	5.99%
Median	2	3	3	3	3	3	4	1
90th%	11	11	7	23	8	10	9	7

Table 8: Relative Frequency of Environmental Assessment Claims in Appeals

	Alternatives	Cumulative Impacts	Mitigation	Indirect Impacts	Uncertainty	Intensity	FONSI
Number of Cases	73	67	38	24	23	19	210
Percent All Cases	12.50%	11.47%	6.51%	4.11%	3.94%	3.25%	35.96%
Percent of EA Claims	30.67%	28.15%	15.97%	10.08%	9.66%	7.98%	88.24%
Median	2	2	2	1	1	1	4.5
90th%	9	8	8	4	2	3	14

Table 9: Relative Frequency of Environmental Impact Statement Claims in Appeals

	Alternatives	Cumulative Impacts	Mitigation	Scope	Indirect Impacts	Uncertainty	Intensity	Connected
Number of Cases	208	117	86	79	41	53	33	32
Percent All Cases	35.62%	20.03%	14.73%	13.53%	7.02%	9.08%	5.65%	5.48%
Percent of EIS Claims	69.10%	38.87%	28.57%	26.25%	13.62%	17.61%	10.96%	10.63%
Median	2	2	2	1	1	1	1	2
90th%	9	7	7	4	2	3	2	10

238. For the 584 appellate cases, 301 involved EIS claims and 238 involved EA claims.