REEVALUATING ENVIRONMENTAL CITIZEN SUITS IN THEORY AND PRACTICE

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Citizen suits are frequently cited as an essential legal innovation by virtue of their capacity to provide a backstop to lax or ideologically antagonistic administrations. Drawing on data from fifteen years of litigation under two prominent environmental statutes, we find little evidence that citizen suits effectively serve this role in practice. Instead, we find that limited resources and institutional barriers strictly limit the number of citizen suits filed annually against the federal government under two of the most litigated environmental statutes, the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). While our findings do not negate the importance of citizen suits, they expose their limitations and the close alignment that exists between where suits are filed and local politics. Citizen suits mirror local values as they are overwhelmingly filed in jurisdictions in which concerns about the environment are the highest, and they are rare where public concern is lowest.

Our empirical findings lead us to reject the conventional model for citizen suits in favor of three alternative models that range from discrete, localized action to continuous lines of litigation over high-profile natural resources that can span decades. We find that the citizen suits under NEPA and the ESA that are covered by our study rarely target state or federal programs that are lax by national standards; instead, they serve a range of goals, large and small, that differ depending on the form of the suit (private enforcement actions, suits to perform nondiscretionary duties, or challenges to legally deficient

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agency action) and the programs and resources affected. Specifically, we find that citizen suits provide important constraints on agency discretion when environmental statutory mandates and the ideological outlook of presidential administrations diverge. Our findings also negate prominent critiques of citizen suits, most notably claims that citizen suits usurp government authority without the safeguard of political accountability and therefore are in need of vigorous gatekeeping by either executive branch officials or federal judges.

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INTRODUCTION

Beliefs about citizen suits tend to conform to one of two pre-

vailing narratives.¹ Among proponents, citizen suits are lauded as an essential legal innovation because of their capacity to provide a backstop to lax or ideologically antagonistic administrations.² According to skeptics, citizen suits undermine the constitutional authority of federal agencies to implement the law,³ and these suits "weaponize" broad legislative mandates to obstruct or delay government actions without the mediating influence of political accountability.⁴ In this light, environmental organizations leverage legal actions in the service of their own idiosyncratic or extreme ends, overriding the values of local communi-

3. See Charles S. Abell, Ignoring the Trees for the Forests: How the Citizen Suit Provision of the Clean Water Act Violates the Constitution's Separation of Powers Principle, 81 VA. L. REV. 1957 (1995).

^{1.} Citizen suit provisions empower individuals and organizations to file lawsuits requiring public or private actors to comply with federal laws. See, e.g., Bruce Fein, Citizen Suit Attorney Fee Shifting Awards: A Critical Examination of Government-"Subsidized" Litigation, 47 LAW & CONTEMP. PROBS. 211, 212 (1984).

^{2.} See Roger C. Cramton & Barry B. Boyer, Citizen Suits in the Environmental Field: Peril or Promise?, 2 ECOLOGY L.Q. 407 (1972); Eileen Gauna, Federal Environmental Citizen Provisions: Obstacles and Incentives on the Road to Environmental Justice, 22 ECOLOGY L.Q. 1 (1995); Christian Langpap & Jay P. Shimshack, Private Citizen Suits and Public Enforcement: Substitutes or Complements?, 59 J. ENVTL. ECON. MGMT. 235 (2010); James R. May, Now More Than Ever: Trends in Environmental Citizen Suits, 10 WIDENER L. REV. 1, 30 (2003); Trevor W. Morrison, Private Attorneys General and the First Amendment, 103 MICH. L. REV. 589 (2005); Will Reisinger, Trent A. Dougherty & Nolan Moser, Environmental Enforcement and the Limits of Cooperative Federalism: Will Courts Allow Citizen Suits to Pick Up the Slack?, 20 DUKE ENVTL. L. & POL'Y F. 1 (2010); William B. Rubenstein, On What a "Private Attorney General" Is-and Why It Matters, 57 VAND. L. REV. 2129 (2004); Matthew C. Stephenson, Public Regulation of Private Enforcement: The Case for Expanding the Role of Administrative Agencies, 91 VA. L. REV. 93 (2005); Matthew D. Zinn, Policing Environmental Regulatory Enforcement: Cooperation, Capture, and Citizen Suits, 21 STAN. ENVTL. L.J. 81 (2002).

^{4.} See Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. 167, 209 (2000) (Scalia, J., dissenting) ("By permitting citizens to pursue civil penalties payable to the Federal Treasury, the Act does not provide a mechanism for individual relief in any traditional sense, but turns over to private citizens the function of enforcing the law. A Clean Water Act plaintiff pursuing civil penalties acts as a self-appointed mini-EPA."); see also Jeannette L. Austin, The Rise of Citizen-Suit Enforcement in Environmental Law: Reconciling Private and Public Attorneys General, 81 NW. U. L. REV. 220 (1986); Frank B. Cross, Rethinking Environmental Citizen Suits, 8 TEMP. ENVTL. L. & TECH. J. 55 (1989); David Freeman Engstrom, Agencies as Litigation Gatekeepers, 123 YALE L.J. 616, 630–41 (2013) (discussing zealousness, coordination, and legislative fidelity critiques of citizen enforcement); Stephen M. Johnson, Sue and Settle: Demonizing the Environmental Citizen Suit, 37 SEATTLE U. L. REV. 891 (2014) (noting criticism by the U.S. Chamber of Commerce and others of so-called "sue and settle" tactics of citizen suit plaintiffs).

ties as well as the expertise and experience of federal agencies.⁵

We find that neither narrative is attentive to the real-world constraints that shape the use of citizen suits in practice. A combination of limited resources and institutional barriers binds the transformative power of citizen suits claimed on the political left and refutes the threats to agency authority asserted by critics on the political right. Drawing on empirical studies of citizen suits filed under the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA) between 2001 and 2016, we observe striking differences in the type, location, and number of suits filed. While our findings do not negate the importance of citizen suits, these findings expose their limitations and highlight the alignment between the suits filed and local politics. In short, citizen suits mirror local values-they are overwhelmingly filed in jurisdictions where concerns about the environment are the highest and are rare where such concerns are lowest. This pattern is at odds with the conventional view that citizen suits backstop government programs where they are lax or prone to succumbing to political opposition.

Citizen suits are not monolithic, and we must be clear about the types covered by our analysis. First, citizen suits may be filed against a private or public entity (including a federal agency) that is subject to and alleged to be in violation of its regulatory responsibilities. This type of citizen suit, which we refer to as "private enforcement actions," is authorized by virtually all of the major federal pollution control statutes⁶ and by other bedrock environmental laws, such as the ESA.7 Second, citizen suits may be brought against federal or state governments for noncompliance with statutory mandates—other than in their roles as regulated entities. This type of citizen suits involves allegations of government noncompliance with nondiscretionary statutory duties, such as failure to issue regulations by statutory deadlines, and may be brought under the environmental statutes⁸ or the Administrative Procedure Act (APA).⁹ Third, citizen

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^{5.} See Engstrom, supra note 4, at 639-41.

^{6.} E.g., Clean Water Act, 33 U.S.C. § 1365(a)(1) (2018); Resource Conservation and Recovery Act, 42 U.S.C. § 6972(a)(1) (2018); Clean Air Act, 42 U.S.C. 7604(a)(1), (3) (2018).

^{7.} E.g., Endangered Species Act, 16 U.S.C. § 1540(g)(1)(A) (2018); Surface Mining Control and Reclamation Act, 30 U.S.C. § 1270(a)(1) (2018).

^{8. 16} U.S.C. § 1540(g)(1)(B); 33 U.S.C. § 1365(a)(2); 42 U.S.C. § 6972(a)(2); 42 U.S.C. § 7604(a)(2).

^{9. 5} U.S.C. § 706(1) (2018).

suits, as we use the term, may involve challenges to substantively or procedurally deficient agency actions. These suits which we refer to as "suits challenging agency action"—may also be brought under the judicial review provisions of individual environmental statutes¹⁰ or, in the absence¹¹ or inapplicability of those provisions,¹² under the APA.¹³ The standard of review varies depending on the legal authority for a citizen suit, as do the conditions that must be met before a case can be filed in federal court.¹⁴

Our terminology differs from standard descriptions of citizen suits. Most frequently, the term is used to cover only the first two categories of citizen litigation described above—private enforcement actions against regulated entities and suits seeking to force federal agencies to perform nondiscretionary duties.¹⁵ In this Article we focus on the third category of citizen litigation suits challenging agency action—because it is analogous to suits alleging that private or public entities are violating statutory or regulatory duties. Examples include suits alleging that an agency prepared an inadequate environmental impact state-

13. 5 U.S.C. §§ 702 (generally making agency action subject to judicial review), 704 (making "[a]gency action . . . reviewable by statute and final agency action for which there is no other adequate remedy in a court" subject to judicial review), 706(2) (authorizing courts to "hold unlawful and set aside agency action" found to be in violation of any of six standards of review).

15. See, e.g., Maria E. Chang, Citizen Suits: Toward A Workable Solution to Help Created Wetlands Succeed, 6 U. FLA. J.L. & PUB. POL'Y 77, 86 (1993) ("There are two basic kinds of citizen suits in environmental law: (1) suits by private citizens against other private citizens alleged to be in violation of a federal environmental law and (2) suits by private citizens against the executive branch of the federal government, usually the EPA, alleging the government has not carried out a mandatory duty in implementing an environmental law.").

^{10.} E.g., 33 U.S.C. § 1369(b); 42 U.S.C. § 6976; 42 U.S.C. § 7607(b).

^{11.} Because NEPA includes no judicial review provision, all NEPA suits are premised on and governed by the APA. *See, e.g.*, Wyoming v. U.S. Dep't of Agric., 661 F.3d 1209 (10th Cir. 2011) (recognizing availability of judicial review of alleged NEPA noncompliance under the APA); Friends of Tim Ford v. Tenn. Valley Auth., 585 F.3d 955 (6th Cir. 2009) (identifying the APA as the basis for a cause of action in a NEPA suit).

^{12.} See, e.g., Bennett v. Spear, 520 U.S. 154, 171–72 (1997) (explaining which ESA suits may be brought under the ESA and APA, respectively).

^{14.} Most of the citizen suit provisions found in federal environmental laws require that the federal government be given notice before a suit is filed, *e.g.*, 33 U.S.C. § 1365(b); 42 U.S.C. § 7604(b), whereas suits under the APA must meet separate exhaustion and ripeness requirements. *See* 5 U.S.C. § 704 (requiring exhaustion in certain circumstances); Darby v. Cisneros, 509 U.S. 137 (1993) (interpreting the scope of that requirement); Abbott Labs. v. Gardner, 387 U.S. 136, 148–51 (1967) (enunciating ripeness standards in suits against federal agencies).

ment (EIS) in violation of NEPA¹⁶ or that an agency failed to consult with the U.S. Fish and Wildlife Service (FWS) under section 7 of the ESA to ensure that a proposed action will not jeopardize the status of an endangered species.¹⁷ An important type of citizen litigation that we will *not* address is that involving facial challenges to agency rulemaking. Our focus is on discrete federal actions or alleged regulatory violations by government entities. In other words, our focus is on "retail" as opposed to "wholesale" citizen suits directed at the day-to-day implementation of environmental laws.¹⁸

We examine NEPA and the ESA for two reasons. First, they are subject to more litigation than any other environmental statute. Second, they have long been the subject of intense academic debate as well as scrutiny from Congress and private stakeholders. For example, members of Congress have introduced numerous bills to reduce the protections of the ESA and to streamline or restrict NEPA procedures.¹⁹ Currently, both statutes are the target of major regulatory and legislative reform,²⁰ with out-ofcontrol litigation often cited as a leading reason for those initia-

^{16. 42} U.S.C. § 4332(2)(C) (2018).

^{17. 16} U.S.C. § 1536(a)(2) (2018).

^{18.} Cf. Daniel A. Farber, Is the Supreme Court Irrelevant? Reflections on the Judicial Role in Environmental Law, 81 MINN. L. REV. 547, 565 (1997) (referring to judicial "creativity at the retail rather than wholesale level, so to speak").

^{19.} Jacob W. Malcom & Ya-Wei Li, *Data Contradict Common Perceptions About a Controversial Provision of the US Endangered Species Act*, 112 PROC. NAT'L ACAD. SCI. 15,845, 15,845 (2015).

^{20.} See, e.g., Update to the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 83 Fed. Reg. 28,591 (proposed June 20, 2018) (to be codified at 40 C.F.R. pts. 1500-08); Endangered and Threatened Wildlife and Plants; Revision of the Regulations for Prohibitions to Threatened Wildlife and Plants, 83 Fed. Reg. 35,174 (proposed July 25, 2018) (to be codified at 50 C.F.R. pt. 17); Endangered and Threatened Wildlife and Plants; Revision of Regulations for Interagency Cooperation, 83 Fed. Reg. 35,178 (proposed July 25, 2018) (to be codified at 50 C.F.R. 402); Revision of the Regulations for Listing Species and Designating Critical Habitat, 83 Fed. Reg. 35,193 (proposed July 25, 2018) (to be codified at 50 C.F.R. pt. 424); Coral Davenport & Lisa Friedman, Push to Weaken Law Protecting At-Risk Wildlife, N.Y. TIMES, July 22, 2018, at A1, https://www.nytimes.com/2018/07/22/climate/endangered-species-acttrump-administration.html [https://perma.cc/KRE8-JKTS]; see also Timothy Cama, Senate GOP Seeks Overhaul of Endangered Species Act, THE HILL (July 2, 2018, 10:00 AM), http://thehill.com/policy/energy-environment/395135-senate-gopseeks-overhaul-of-endangered-species-act [https://perma.cc/XJ97-97TN] (describing "an ambitious effort to overhaul" the ESA); DIANE KATZ, HERITAGE FOUND., Time to Repeal the Obsolete National Environmental Policy Act (NEPA) (2018), https://www.heritage.org/sites/default/files/2018-03/BG3293_0.pdf [https://perm.cc /9DYS-JMYH] (urging NEPA's repeal).

tives.²¹ NEPA and the ESA have the further virtue that data exist on the scope of government actions potentially subject to litigation under these laws. The data enable us to gain further insights into the volume and geographic distribution of the litigation that we observe. Both statutes also have powerful procedural mandates that courts have interpreted strictly. As a result, judges are less deferential to federal agencies than in many other administrative law contexts, and there is greater variability in case outcomes for statistical methods to exploit.

One of the central objectives of this Article is to put citizen suits in perspective. We worry that too much weight is placed on environmental litigation and that this emphasis has significant costs.²² For one, unrealistic confidence in litigation may reduce the perceived urgency of the political activity and regulatory oversight that are essential to sustaining public support and rigorous government programs. This may be particularly true because legal victories are more salient than political campaigns or consistent agency oversight, which are by nature often more protracted and less conclusive in their outcomes. Moreover, if citizen suits are not playing a robust role in ensuring vigorous agency implementation, systematic underfunding or mismanagement of the environmental statutes could cripple those laws—with little hope that citizen suits could provide an effective backstop. Further, by overstating the efficacy of citizen suits, partisan opponents can exaggerate the alleged threat they pose to agency authority. These misperceptions can fuel political opposition by reinforcing a common narrative among critics that environmental regulation has been usurped by extreme special interests whose goals diverge from the public interest. As we explain below, a disproportionate focus on private enforcement actions and on suits to enforce nondiscretionary duties as the norm for citizen suits has reinforced their alleged costs. The criticisms include claims that citizen suits divert agency priority-setting, are unconstrained by political accountability, and are inadequately policed by federal courts. To the extent that such expec-

^{21.} Patrick Parenteau, *Citizen Suits Under the Endangered Species Act: Survival of the Fittest*, 10 WIDENER L. REV. 321, 351 (2004) (discussing the "ferocious political backlash" against the ESA's citizen suit provision which has threatened the statue's continued existence).

^{22.} Other commentators have expressed reservations about the limitations of citizen suits. See, e.g., Jim Hecker, The Difficulty of Citizen Enforcement of the Clean Air Act, 10 WIDENER L. REV. 303 (2004).

tations and fears are out of step with reality, environmental policy may lose much more than it gains.

A few broad statistics illustrate the likelihood that expectations of citizen suits are inflated. Under NEPA and the ESA, the number of federal actions potentially subject to the two statutes annually exceeds one hundred thousand, whereas the number of district court orders from citizen suits is roughly one hundred (for NEPA) and thirty (for the ESA).²³ The volume of citizen suits that result in a judicial order in either case is strikingly low—a tiny fraction of federal actions potentially subject to suit.²⁴ Based on relative case volume alone,²⁵ these statistics illustrate the limited capacity citizen suits have to impact the implementation of environmental laws, particularly given that plaintiffs prevail, on average, in about one-third of the cases.²⁶ Even taking into account the precedential effect of judicial opinions, the disparities between the number of citizen suits on the one hand and the volume of federal actions subject to review on the other are extreme.²⁷ In sum, the data available over the last two decades show that citizen suits operate on the margins day-to-day implementation of these of two essential environmental laws.

This Article proceeds in three parts. Part I provides an overview of the debate over citizen suits and the existing empirical literature. Part II describes our studies of litigation under NEPA and the ESA and discusses the principal findings. We find that the narratives of both defenders and critics of citizen suits are flawed and that the motivating rationales for citizen suits are misconceived. Part III examines the normative and practical implications of our results. We identify three principal models in which citizen suits operate. These suits neither pose the threat to agency authority that citizen suit critics claim nor provide the systematic backstop on agency implementation of the law that

^{23.} See infra Section II.B.

^{24.} If just 1 percent of federal actions were based on legally suspect procedures, the litigation rates under each statute would be below 10 percent of potential cases that could be legitimately filed. *See infra* Sections I.A, II.B.

^{25.} More recently, EPA-initiated civil judicial and administrative enforcement actions have declined from about 3,300 in 2010 to roughly 2,400 in 2016, but this drop does not detract from our central point. For data, see *Enforcement Annual Results Analysis and Trends for Fiscal Year 2017*, EPA, https://www.epa.gov/enforcement/enforcement-annual-results-analysis-and-trends-fiscal-year-2017 (last visited Aug. 31, 2019) [https://perma.cc/TJ65-JTXH].

^{26.} See infra Section II.B.

^{27.} See infra Section III.A.

proponents proclaim. Our findings demonstrate that citizen suits need not be subject to vigorous gatekeeping by either federal agencies²⁸ or by federal judges applying prudential or constitutional standing doctrines.²⁹ The risk that a flood of litigation will arise in the absence of these controls has no empirical basis. On the other hand, despite their small numbers, we find that citizen suits still provide important constraints on agency discretion when presidential administrations have an ideological outlook that conflicts with the statutory mandates of federal environmental laws.

I. DEBATING CITIZEN SUITS AND THE EMPIRICAL RECORD

There is a surprising shortage of empirical work on environmental citizen suits. Only a handful of studies have been conducted, and most are at least a decade old.³⁰ Most of this work has focused on cases against private or public entities alleged to be in violation of regulatory standards or protocols (the first type of citizen suit described above). Studies of litigation that cover a broad swath of citizen suits, as we define the term here, exist under specific environmental statutes, including NEPA and the ESA. These studies often focus, however, either on national statistics or litigation involving specific federal agencies and give little attention to regional variation or differences across circuits.³¹ This section reviews the normative justifications for and

^{28.} Engstrom, *supra* note 4 (considering the value of such a gatekeeping role).

^{29.} Prudential standing rules are nonconstitutional constraints on standing such as the zone of interest test derived from § 702 of the APA, 5 U.S.C. § 702 (2018). The Supreme Court has explained that "a person suing under the APA must satisfy not only Article III's standing requirements, but an additional test: The interest he asserts must be 'arguably within the zone of interests to be protected or regulated by the statute' that he says was violated." Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians v. Patchak, 567 U.S. 209, 224 (2012) (quoting Ass'n of Data Processing Serv. Orgs. v. Camp, 397 U.S. 150, 153 (1970)).

^{30.} See, e.g., ENVTL. LAW INST., CITIZEN SUITS: AN ANALYSIS OF CITIZEN ENFORCEMENT ACTIONS UNDER EPA-ADMINISTERED STATUTES V-7 (1984) [hereinafter ELI]; Langpap & Shimshack, supra note 2; May, supra note 2; Wendy Naysnerski & Tom Tietenberg, Private Enforcement of Federal Environmental Law, 68 LAND ECON. 28 (1992); Kristi Smith, Who's Suing Whom?: A Comparison of Government and Citizen Suit Environmental Enforcement Actions Brought Under EPA-Administered Statutes, 1995–2000, 29 COLUM. J. ENVTL. L. 359, 371 (2004).

^{31.} See JAY E. AUSTIN ET AL., JUDGING NEPA: A "HARD LOOK" AT JUDICIAL DECISION MAKING UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT (2004); 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 (2009); Denise M. Keele & Robert W. Malmsheimer, *Is*

debates over citizen suits as well as the empirical literature on trends and types of environmental citizen suits. We then turn to the smaller literature on litigation under NEPA and the ESA, highlighting the key findings and important gaps.

A. Normative and Practical Concerns About Citizen Suits

The creation of broad citizen suit provisions was among the most important innovations in the groundbreaking federal environmental legislation passed in the 1970s. These provisions were novel for their breadth and because they empowered citizens to file enforcement suits directly against private or public entities for alleged statutory deficiencies or regulatory violations. Congress believed that citizen enforcement actions by third parties would supplement or prod agency enforcement by "shaming [an agency] or by forcing it to intervene."³² The justification for this kind of citizen suit was driven by concerns about the shortcomings of government enforcement—limited budgets,³³ challenges of detecting violations,³⁴ political or institu-

the Ninth Circuit a Liberal Environmental Activist Court?, 37 JUST. SYS. J. 115, 115 (2016); Robert W. Malmsheimer et al., National Forest Litigation in the US Courts of Appeals, 102 J. FORESTRY 20, 22 (2004); 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]; Beth Gambino Portuese et al., Litigants' Characteristics and Outcomes in U.S. Forest Service Land-Management Cases 1989 to 2005, 107 J. FORESTRY 16 (2009); Lettie McSpadden Wenner & Lee E. Dutter, Contextual Influence on Court Outcomes, 41 W. POL. Q. 115, 123–24 (1988).

^{32.} JEFFREY G. MILLER, CITIZEN SUITS: PRIVATE ENFORCEMENT OF FEDERAL POLLUTION CONTROL LAWS 3–5 (1987) (arguing that citizen suits "[o]vercome obstacles to effective public enforcement, such as limited agency resources and the structural risk of agency underenforcement"); Stephenson, *supra* note 2, at 110 (stating that "[f]irst, and most directly, private lawsuits can be a substitute for agency prosecutions in areas where the agency is excessively lax"); Barton H. Thompson, Jr., *The Continuing Innovations of Citizen Enforcement*, 2000 U. ILL. L. REV. 185, 186 (2000).

^{33.} Stephenson, *supra* note 2, at 107 (noting that "private enforcement can provide more enforcement resources and facilitate more efficient allocation of public resources"); Thompson, *supra* note 32, at 191 (stating that "the enforcement wings of both federal and state agencies are often woefully understaffed and underfunded").

^{34.} Stephenson, *supra* note 2, at 109 (suggesting that "private enforcement enables those citizens who value the public good more highly to subsidize enforcement by bearing some of the monitoring and prosecution functions themselves"); Thompson, *supra* note 32, at 190 (observing that "environmental violations are difficult or prohibitively expensive for the government to detect" and using harm to endangered species as an example).

tional barriers to agency enforcement,³⁵ and potential for private enforcement to generate innovative litigation strategies that could be adopted by federal agencies.³⁶ The legislative history of the first environmental citizen suit provision, under the Clean Air Act (CAA), reflects this perspective. The Senate and House reports state that citizen suits will "motivate governmental agencies"³⁷ and that "it is too much to presume that, however well-staffed or well-intentioned these enforcement agencies, they will be able to monitor the potential violations."38 In addition, "democratic empowerment" was an important factor in inducing Congress to authorize this kind of citizen suit insofar as it placed a premium on giving citizens "very broad opportunities to participate in the effort to prevent and abate air pollution."³⁹ Citizen suits brought against agencies to enforce nondiscretionary duties also had the potential to combat agency inaction and prompt timely and appropriate implementation of environmental regulatory programs.⁴⁰

It was not until the deregulatory backlash, initiated by the Reagan Administration during the mid-1980s, that citizen suits began to be filed in significant numbers.⁴¹ The growth in the vol-

37. COMM. ON PUB. WORKS, 93D CONG., A LEGISLATIVE HISTORY OF THE CLEAR AIR AMENDMENTS OF 1970, at 138, 127, 230, 263, 347 (1974).

^{35.} Eric Biber & Berry Brosi, Officious Intermeddlers or Citizen Experts? Petitions and Public Production of Information in Environmental Law, 58 UCLA L. REV. 321, 345 (2010) (noting that "citizen suit provisions could help to ensure that agencies were not fully 'captured' by regulated entities, particularly when implementing environmental statutes with dispersed benefits to the public as a whole but concentrated costs for regulated industry"); Stephenson, *supra* note 2, at 107 (observing that "private enforcement suits can provide a check on agencies that prevents them from shirking their responsibilities"); Thompson, *supra* note 32, at 191 (stating that "political considerations and institutional structure may often lead agencies to ignore violations that are known and appropriate to prosecute").

^{36.} Stephenson, *supra* note 2, at 107 (suggesting that "private enforcement can foster innovative litigation strategies and settlement techniques, which may then be adopted by government regulators"); *cf.* Robert L. Glicksman, *The Value of Agency-Forcing Citizen Suits to Enforce Nondiscretionary Duties*, 10 WIDENER L. REV. 353, 353 (2004) (noting that such suits "have induced agencies to create entirely new regulatory programs, significantly expand the scope of existing regulatory programs, or accelerate the pace of existing regulatory programs").

^{38.} Id. at 280-81 (remarks of Sen. Muskie, Sept. 21, 1970).

^{39.} Id. at 136, 138.

^{40.} See *id.* at 351 (remarks of Sen. Muskie that "[t]he concept of compelling bureaucratic agencies to carry out their duties is integral to democratic society.... The concept in the bill is that administrative failure should not frustrate public policy....").

^{41.} See Cross, supra note 4, at 56 ("Certainly some of the recent proliferation of citizen suits is due to the Reagan Administration's reduction in enforcement

ume of citizen suit litigation during the 1980s and 1990s elicited a critical response from regulated industries and the academic community.⁴² Critics argued that such citizen suits would "disrupt government regulatory schemes" rather than beneficially supplement agency enforcement.⁴³ Perhaps most problematically, critics also contended that both enforcement actions against regulated entities and suits to force agency implementation of nondiscretionary duties can "raise concerns about the democratic accountability of law enforcers, since private plaintiffs are not subjected to the same electoral checks that constrain

actions."); David R. Hodas, Enforcement of Environmental Law in a Triangular Federal System: Can Three Not Be a Crowd When Enforcement Authority Is Shared by the United States, the States, and Their Citizens?, 54 MD. L. REV. 1552, 1608 (1995) (explaining the view that "the wave of citizen suits in the 1980s was motivated, in part, by the perception that 'the first Reagan Administration was rapidly undermining compliance with environmental laws").

^{42.} One academic and former environmental litigator has noted that during the 1990s, "the conservative backlash against federal environmental laws and citizen suits" prompted public interest environmental litigators "to look anew at common law causes of action." Denise E. Antolini, Modernizing Public Nuisance: Solving the Paradox of the Special Injury Rule, 28 ECOLOGY L.Q. 755, 759 n.6 (2001). Professor Stewart has argued that prospective citizen suit plaintiffs may be reluctant to initiate litigation "in cases where enforcing the letter of the law would impose large social and economic costs and potentially trigger a political backlash that could undermine the regulatory program." Richard B. Stewart, A New Generation of Environmental Regulation?, 29 CAP. U. L. REV. 21, 59 (2001). The courts themselves contributed to the backlash by, for example, imposing new restrictions on standing to sue. See Randall S. Abate & Michael J. Myers, Broadening the Scope of Environmental Standing: Procedural and Informational Injury-in-Fact After Lujan v. Defenders of Wildlife, 12 UCLA J. ENVTL. L. & POL'Y 345, 347 (1994); Harold Feld, Saving the Citizen Suit: The Effect of Lujan v. Defenders of Wildlife and the Role of Citizen Suits in Environmental Enforcement, 19 COLUM. J. ENVTL. L. 141, 161 (1994) (referring to "the Judiciary's apparent recent animus toward environmental suits"); Martin A. McCrory, Standing in the Ever-Changing Stream: The Clean Water Act, Article III Standing, and Post-Compliance Adjudication, 20 STAN. ENVTL. L.J. 73, 96 (2001) (noting that Justice Scalia "sharply criticized the liberalized evolution of standing as granting courts an unconstitutionally expansive role").

^{43.} Stephenson, *supra* note 2, at 106, 114 (claiming that "private rights of action can lead to inefficiently high levels of enforcement, causing waste of judicial resources and leading to excessive deterrence of socially beneficial activity"). See also Jim Rossi, Participation Run Amok: The Costs of Mass Participation for Deliberative Agency Decision-Making, 92 NW. U. L. REV. 173, 224 (1997) (asserting that citizen suits may "represent lost opportunities for the EPA to pursue alternative enforcement priorities"). Stephenson suggests further that "private enforcement actions can directly interfere with public enforcement efforts, distorting government enforcement priorities and disrupting the cooperative relationship between regulators and regulated entities that is often necessary to achieve compliance with statutory objectives." Stephenson, supra note 2, at 114.

executive officials."⁴⁴ This lack of accountability can be most troublesome when a disparity exists between the private interests of the person or organization bringing a citizen suit and the public interest of the affected communities.⁴⁵ Critics argued further that misalignments of private and public interests were inevitable because statutory implementation often requires the exercise of discretion, either because rules are unrealistically strict or too broadly discretionary.⁴⁶

A principal concern that animates much of the critique today is that powerful environmental organizations with their own idiosyncratic or extreme priorities will hijack the authority of federal agencies vested with primary responsibility for implementing the law.⁴⁷ Some commentators have claimed that pure self-interest rather than environmental values drove the growth in citizen suits filed. Critics point, for example, to the ease with which attorney's fees can be extracted in citizen suits.⁴⁸ They also claim that the proliferation of citizen suits has spawned a

^{44.} Stephenson, *supra* note 2, at 114; *see also* Jonathan H. Adler, *Stand or Deliver: Citizen Suits, Standing, and Environmental Protection,* 12 DUKE ENVTL. L. & POL'Y F. 39, 49 (2001) (claiming that plaintiffs filing citizen suits "face no significant political repercussions for setting unwise enforcement priorities"); Richard J. Pierce, Jr., *Agency Authority to Define the Scope of Private Rights of Action,* 48 ADMIN. L. REV. 1, 12 (1996) (stating that a critical shortcoming of citizen suits is the "lack of political accountability for important policy decisions"); Richard B. Stewart & Cass R. Sunstein, *Public Programs and Private Rights,* 95 HARV. L. REV. 1193, 1292 (1982) (observing that citizen suits can "undermin[e] the advantages of political accountability, specialization, and centralization that administrative regulation was designed to provide").

^{45.} Stephenson, *supra* note 2, at 115, 117.

^{46.} See Cross, supra note 4, at 65 (asserting that "[t]he Congressional perception that enforcement actions would generally be nondiscretionary turned out to be an unrealistic one.... In fact, enforcement decisions may require the weighing of various policy considerations by the EPA."); Stephenson, supra note 2, at 116 (claiming that the risk of "overdeterrence ... is compounded by the tendency of agencies and legislatures, when faced with complex policy problems, to enact regulations that are deliberately overbroad and then to rely on the discretion of government enforcers").

^{47.} See Cross, *supra* note 4, at 55 (expressing the concern that granting broad rights to file citizen suits "permits a leapfrogging of the administrative agencies that ordinarily apply our nation's environmental laws").

^{48.} See, e.g., Nuno Garoupa, A Note on Private Enforcement and Type-I Error, 17 INT'L REV. L. & ECON. 423, 423 (1997); Michael S. Greve, The Private Enforcement of Environmental Law, 65 TUL. L. REV. 339, 341, 355–58 (1990) (asserting that citizen suits "make enforcement financially attractive for almost no one except environmental advocacy groups"); Smith, supra note 30, at 371 (describing claims that "settlements from suits based on 'easy' violations (e.g., selfreported CWA discharge violations) [are used] to finance the national environmental movement").

"cartel of environmental advocacy groups."⁴⁹ Similar concerns have been raised about citizen suits filed against agencies for failure to perform nondiscretionary duties. These suits also have the potential to divert agency resources from programs that agencies have prioritized.⁵⁰

Academics and others have also challenged the economic and structural critiques of citizen suits. There is little evidence, for example, that attorney's fees are sufficient (outside securities cases) to provide adequate funding for even a nonprofit organization.⁵¹ Moreover, the battle that must be fought with the Department of Justice (DOJ) to obtain attorney's fees often leads organizations to forgo them, and many of the national organizations cannot seek attorney's fees under the Equal Access to Justice Act (EAJA).⁵² Critics also make no effort to consider the relative volume of actions filed by federal or state government officials versus the number of citizen suits. The available data suggest that government enforcement actions (including administrative actions) outnumber citizen enforcement actions against regulated entities by a factor of about ten.⁵³ Consistent with

^{49.} Greve, *supra* note 48, at 341–42, 362 (asserting that the financial incentives generated by attorney's fees have created "what amounts to an environmentalist enforcement cartel" and that "environmental organizations almost always proceed against private industry, and almost never against government entities"); *see also* A.H. Barnett & Timothy D. Terrell, *Economic Observations on Citizen-Suit Provisions of Environmental Legislation*, 12 DUKE ENVTL. L. & POLY F. 1 (2001) (stating that a cartel of environmental advocacy groups is formed and maintained through citizen suits because credit programs gained in settlement as well as abovecost reimbursement of attorney's fees amount to payments to these organizations and thus cause them to over-enforce the laws).

^{50.} See Biber & Brosi, supra note 35, at 345 ("Scholars have argued that citizen suits divert agencies from rational priority-setting by requiring them to attend to low-priority matters."); cf. Eric Biber, The Importance of Resource Allocation in Administrative Law, 60 ADMIN. L. REV. 1, 23 (2008) (noting that if a court forces an agency to reconsider an invalidated rule, "the agency will have been forced to divert time and effort into redrafting the rule—time and effort that it otherwise likely would have spent on other priorities").

^{51.} Steven M. Dunne, Attorney's Fees for Citizen Enforcement Statutes: The Obstacles for Public Interest Law Firms, 9 STAN. ENVTL. L.J. 1, 22, 40 n.170 (1990).

^{52.} Interview with Nada Culver, Senior Counsel and Dir., BLM Action Ctr., The Wilderness Soc'y (Dec. 8, 2017). EAJA limits awards in civil suits by or against a federal agency to "parties," which are defined as organizations whose net worth did not exceed \$7 million and did not employ more than five hundred people at the time suit was filed. 28 U.S.C. § 2412(d)(2)(B) (2018).

^{53.} See Hodas, supra note 41, at 1573 (observing that between 1983 and 1993 nonprofit organizations filed one hundred to three hundred sixty-day notices annually under the Clean Water Act versus the thousands of administrative actions initiated by the EPA and the states each year); see also Michael D. Montgomery, Raising the Level of Compliance with the Clean Water Act by Utilizing Citizens and

these observations, several commentators have challenged claims that environmental groups are not publicly accountable. They argue that advocacy groups cannot ignore public opinion, even if it is driven by economic concerns, and that private enforcement actions are constrained because "few nonprofits benefit from running a valued company out of business."⁵⁴ These realities, combined with perennial concerns about legislative backlashes from Congress (which has become progressively more skeptical of government regulation in general⁵⁵ and environmental regulation in particular), run contrary to the most troubling critiques of citizen suits.

More broadly, the critiques and defenses of citizen suits described above relate mostly to private enforcement actions. Yet these actions represent just one class of enforcement litigation under the environmental statutes, and we expect it is not the most important one with respect to either volume or significance. The near-exclusive focus on private enforcement actions has meant that the arguments advanced by citizen suit supporters and skeptics often have little to say about citizen suits challenging agency action on either substantive or procedural grounds. This Article focuses on this class of citizen litigation in the form of citizen suits challenging alleged agency noncompliance with NEPA and the ESA.

As noted above, the lack of data on citizen suits is a significant barrier to assessing the grounds for critics' concerns. The persuasiveness of these concerns turns on evaluation of the balance between the benefits of backstopping deficient government implementation (in the form of failures to enforce, failures to comply with nondiscretionary duties, and improper agency ac-

the Broad Dissemination of Information to Enhance Civil Enforcement of the Act, 77 WASH. U. L.Q. 533, 539 n.59 (1999).

^{54.} Thompson, *supra* note 32, at 205; *see also* Austin, *supra* note 4, at 257 (questioning why the motivations of environmental groups should differ substantially from those of public enforcers since "[b]oth... are influenced by political pressure and their interest in political victory").

^{55.} See, e.g., Matthew R. Christiansen & William N. Eskridge, Jr., Congressional Overrides of Supreme Court Statutory Interpretation Decisions, 1967-2011, 92 TEX. L. REV. 1317, 1352 (2014) (noting that, "[r]ather than seeking to update the superstatutes of the New Deal, the Great Society, and the Nixon-Ford Administration, the post-9/11 GOP Congresses and the Bush-Cheney Administration were skeptical of significant government regulation"); Robert L. Glicksman & Richard E. Levy, A Collective Action Perspective on Ceiling Preemption by Federal Environmental Regulation: The Case of Global Climate Change, 102 NW. U. L. REV. 579, 581 (2008) ("[W]e live in an era of regulatory skepticism.").

tion) versus the potential downsides of overly zealous or counterproductive litigation. Informed consideration of whether citizen suits are striking the proper balance would benefit from enhanced understanding of the cases being filed by government officials and citizens as well as the priorities and strategic considerations that can be discerned from the patterns observed. This information would help reveal the range and impacts of citizen suits and the practical significance of the criticisms leveled against the prevailing norm of relatively unconstrained freedom to file citizen suits.

B. Citizen Suits in Context: Litigation Under NEPA and the ESA

Because the literature is more extensive, we begin with the studies of litigation under NEPA. According to the Council on Environmental Quality (CEQ), which oversees compliance with NEPA across the federal government, the number of NEPA cases filed in federal district courts was highest in the 1970sroughly 150 to 190 cases annually—but subsequently dropped to about one hundred cases per year in the decades that followed.⁵⁶ Data on circuit cases are more limited, with data from 2012 indicating that, on average, twenty-five to thirty cases were filed each year.⁵⁷ By contrast, the number of federal actions potentially subject to NEPA is estimated to exceed one hundred thousand annually, which implies that NEPA litigation must be highly selective because it implicates only a tiny fraction of the federal actions that potentially fall within its scope.⁵⁸ The aggregate volume of litigation under NEPA is therefore a telling statistic in its own right-and the disparities are similar, if not more extreme, under the ESA.⁵⁹

The most detailed studies have focused on NEPA litigation involving the U.S. Forest Service (USFS), which accounts for about one-third of district court cases and one-quarter of appeals with NEPA claims filed each year.⁶⁰ Geographically, more than

^{56.} U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-14-369, NATIONAL ENVIRONMENTAL POLICY ACT: LITTLE INFORMATION EXISTS ON NEPA ANALYSES 20 (2014) [hereinafter GAO-14-369].

^{57.} Id.

^{58.} David E. Adelman & Robert L. Glicksman, Presidential and Judicial Politics in Environmental Litigation, 50 ARIZ. ST. L.J. 3, 16–17 (2018).

^{59.} See supra Section III.B.

^{60.} See, e.g., Broussard & Whitaker, supra note 31, at 134; Keele &

half of the cases were filed in the Ninth Circuit,⁶¹ which reflects, in part, the fact that over 60 percent of USFS lands are located in the states encompassed by that Circuit.⁶² Despite the concentration of cases in the Ninth Circuit, the studies have generated conflicting findings on whether the Ninth Circuit favors plaintiffs more than other circuits.⁶³ In addition, while the USFS won roughly 60–70 percent of the NEPA cases in which it was a defendant,⁶⁴ environmental organizations prevailed at higher rates than other plaintiffs.⁶⁵ Two studies also found mixed evi-

62. Keele & Malmsheimer, *supra* note 31, at 115 (observing that the Ninth Circuit has jurisdiction over more public lands than any other federal circuit); Malmsheimer et al., *supra* note 31, at 22 (observing that 63 percent 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 percent of national forest acreage (122,092,000 acres) was located in the Ninth Circuit).

63. 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 decisions on ideological grounds, it is difficult to make generalizations about the ideology of judges on the Ninth Circuit due to differences in judicial appointments across presidential administrations); Keele & Malmsheimer, supra note 31, at 130-31 (concluding that "the Ninth Circuit was not significantly more activist than other circuits over the time period [1989– 2008]," but also concluding that district courts located within the Ninth Circuit were statistically significantly more likely to reverse agency action (36.2 percent) than the decisions of district courts located within all other circuits (21 percent)); Malmsheimer et al., supra note 31, at 23 (finding that the USFS had the highest likelihood of prevailing in the Tenth (67 percent) and Eighth (71 percent) Circuits and the lowest in the Ninth Circuit (49 percent)); Amanda M.A. Miner et al., Twenty Years of Forest Service Land Management Litigation, 112 J. FORESTRY 32, 35 (2014) [hereinafter Miner et al., Forest Service Litigation] (concluding that the USFS was most successful in the Seventh Circuit (80 percent) and the least in the Ninth and Eleventh Circuits (48 percent)); Wenner & Dutter, supra note 31, at 123-24 (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).

64. Broussard & Whitaker, *supra* note 31, at 137 (finding that the USFS won 60 percent of the district court and 57 percent of the circuit court cases); Miner et al., *Forest Service Litigation, supra* note 63, at 34 (finding that the USFS won 70 percent of the appeals and 64 percent of cases decided on the merits); Miner et al., *NEPA Litigation, supra* note 31, at 123 (finding that the USFS won 66 percent of the NEPA cases litigated).

65. Broussard & Whitaker, *supra* note 31, at 135; Portuese et al., *supra* note 31, at 16–17 (finding that repeat litigants, which were overwhelmingly environmental organizations, were more likely to prevail in their claims); Miner et al., *Forest Service Litigation, supra* note 63, at 35 (finding that the USFS won only

Malmsheimer, supra note 31, at 115; Miner et al., NEPA Litigation, supra note 31.

^{61.} Broussard & Whitaker, *supra* note 31, at 137 (finding that 61 percent of the cases were filed in the Ninth Circuit, 12 percent in the Tenth Circuit, and 7 percent in the Eighth Circuit); Miner et al., *NEPA Litigation, supra* note 31, at 120 (finding that 64 percent of cases were filed in the Ninth Circuit).

dence about whether the rates at which environmental organizations prevailed changed across presidential administrations.⁶⁶ In general, the findings do not display the kinds of pathologies highlighted by critics of citizen suits: the volume of cases is small relative to the number of potential federal actions, the types of actions being challenged do not fit a model of organizational enrichment, and it is difficult to discern signs of divergence between the private interests of the plaintiffs and the public interests at stake.

Fewer empirical studies exist of litigation under the ESA despite the widespread controversy surrounding citizen suits under the statute.⁶⁷ Moreover, those studies focus disproportionately on litigation that has triggered opposition from citizen suit critics.⁶⁸ To date, all of the empirical studies⁶⁹ have focused on

⁴⁹ percent of the cases filed by environmental interests versus 70 percent of cases involving other plaintiffs).

^{66.} Keele & Malmsheimer, *supra* note 31, at 126 (finding that the differences in rates at which the USFS prevailed were not statistically significant between the George W. Bush and Obama Administrations); Malmsheimer et al., *supra* note 31, at 22 (finding that the USFS won a lower proportion of cases during the Reagan Administration (28.6 percent) than the George H.W. Bush Administration (64 percent) and the Clinton Administration (80 percent)).

^{67.} See Holly Doremus, Adaptive Management, the Endangered Species Act, and the Institutional Challenges of "New Age" Environmental Protection, 41 WASHBURN L.J. 50, 65 (2001) ("The ESA's citizen suit provision has often courted controversy..."); cf. Glicksman, supra note 36, at 368 (noting that "the northern spotted owl litigation may be the most well-known, and certainly is some of the most controversial litigation that the ESA has produced"). Suits to force listing of species and designation of critical habitat perhaps have been the most controversial. See Candee Wilde, Evaluating the Endangered Species Act: Trends in Mega-Petitions, Judicial Review, and Budget Constraints Reveal a Costly Dilemma for Species Conservation, 25 VILL. ENVTL. L.J. 307, 315 (2014) (asserting that "[o]ne of the ESA's most controversial, yet powerful, aspects is the citizen-suit provision," which "empowers citizens to become involved in the listing process, including critical habitat designations for listed species").

^{68.} Benjamin Jesup, Endless War or End this War: The History of Deadline Litigation Under Section 4 of the Endangered Species Act and the Multi-District Litigation Settlements, 14 VT. J. ENVTL. L. 327 (2013); cf. John Charles Kunich, The Fallacy of Deathbed Conservation Under the Endangered Species Act, 24 ENVTL. L. 501, 566 (1994) (arguing that ESA provisions authorizing citizens "to petition the Secretary to list, delist, or reclassify a species can detract from his ability to maintain any semblance of order and priority in using scarce conservation resources, whether monetary or political. Individuals, or more likely, environmental organizations, are able to impose their own agenda on the agencies, forcing their own views on those who are required by the ESA to administer the program.").

^{69.} GOV'T ACCOUNTABILITY OFFICE, GAO-17-304, ENVIRONMENTAL LITIGATION: INFORMATION ON ENDANGERED SPECIES ACT DEADLINE SUITS (2017) [hereinafter GAO ESA Report]; Berry Brosi & Eric Biber, *Citizen Involvement in*

deadline suits involving petitions to the FWS or the National Marine Fisheries Service (NMFS) requesting determinations on whether a species warrants listing as "threatened" or "endangered."70 This is the archetype of impact litigation in which either the FWS or the NMFS is sued in its role as federal regulator under the ESA for failure to perform nondiscretionary duties. This work was precipitated by concerns (including among environmental groups) that ESA deadline suits were burdening the FWS with so many court-ordered deadlines that the agency was unable to meet its other statutory obligations.⁷¹ Tensions were magnified in 2007 when the environmental group WildEarth Guardians filed two "mega-petitions" that together proposed the listing of almost seven hundred species.⁷² The legal and political battles surrounding the mega-petitions hardened positions among stakeholders and politicians, including conflicting views within the environmental community.73

Empirical studies have sought to assess the impacts and

71. GAO ESA Report, *supra* note 69, at 24–25 (observing that "FWS documents indicated that the agency was limited in its ability to undertake work on additional Section 4 actions outside of the [settlement] agreements" generated by the deadline suits); Jesup, *supra* note 68, at 386–87 (discussing a House Committee on Natural Resources hearing in which members claimed that "the ESA has become taken over by lawsuits, settlements and judicial action").

72. Jesup, *supra* note 68, at 363. Two subsequent rounds of listing cases added another 500 species. *Id.* at 371–72, 374–75. An initial settlement covering 600 species and 251 candidate species was negotiated and then abandoned for a more modest commitment by the FWS to do a better job in its "implementation of the existing law." *Id.* at 374–75, 387. Candidate species are those "being considered by [one of the Services] for listing as endangered or threatened species but not yet the subject of a proposed rule." 50 C.F.R. § 424.02 (2016).

73. See Daniel J. Rohlf, Section 4 of the Endangered Species Act: Top Ten Issues for the Next Thirty Years, 34 ENVTL. L. 483, 526 (2004) (describing the consequences of the "flood of litigation over critical habitat designation" under the ESA).

the U.S. Endangered Species Act, 337 SCIENCE 802 (2012); Biber & Brosi, supra note 35.

^{70.} In order for a species to be protected under the ESA, it must first be listed as "threatened" or "endangered." The deadline suits all involve petitions to compel the FWS or NMFS to make a listing determination regarding one or more species. Section 4(a)(1) of the ESA essentially mandates that the FWS and NMFS determine whether species are threatened or endangered based on a set of statutory criteria using the best available scientific or commercial data without any considerations of the economic or other impacts of the listing decision. 16 U.S.C. §§ 1532(5)(A), 1533(b)(1) (2018). Citizens can force the FWS or NMFS to consider listing a species by filing a petition, to which the agency must, to the maximum extent practicable, respond within ninety days. *Id.* § 1533(b)(3)(A). If the agency finds that "substantial information" exists for listing the species, it must initiate a twelve-month status review, which leads to a final determination of whether listing is warranted. *Id.* § 1533(b)(3)(B).

merits of listing petitions and deadline suits under the ESA. A 2017 study conducted by the Government Accountability Office (GAO) provided an inventory of citizen actions and their impacts on the FWS and the NMFS.⁷⁴ From 2005 through 2015, the two agencies received 234 petitions that collectively covered 1,751 species, but almost 1,100 were covered by the mega-petitions mentioned above.⁷⁵ To put this in perspective, as of 2017, a total of 1,682 species had been listed under the ESA. In the federal courts, 141 deadline suits involving 1,441 species (ninety-three of which involved a single species) were filed over this elevenyear period.⁷⁶ Plaintiffs prevailed either through settlement or court order in about three-quarters of the cases, but only nine cases (6 percent) were decided by judicial opinion. Together, they resulted in the completion of 1,766 listing determinations.⁷⁷ The GAO ESA Report concludes that the FWS, though not the NMFS, was forced to delay completing other statutory duties in order to meet its obligations under the deadline suit settlements.⁷⁸ In short, this impact litigation appears to bear out critics' worst fears: an unaccountable "cartel"79 dominated by two environmental groups exploited rigid timing requirements in the ESA to impose deadlines for species listing determinations that resulted in the redirection of limited agency resources.

^{74.} It is important to note that the FWS has much wider responsibility for managing protected species than the NMFS. According to the GAO, in 2017 FWS had responsibility over 1,586 species, whereas NMFS was responsible for just ninety-six. GAO ESA Report, *supra* note 69, at 5.

^{75.} *Id.* at 11 (noting that of these totals, the NMFS received just sixty-four petitions that collectively covered 305 species).

^{76.} *Id.* at 13. About 90 percent of the cases were against the FWS, and they involved the following claims: (1) listing (104 claims, 67 percent), (2) delisting (18 claims, 12 percent), (3) designating or revising critical habitat (21 claims, 14 percent), and (4) conducting five-year status reviews (10 claims, 7 percent). *Id.* at 15.

^{77.} *Id.* at 19, 22 (noting that 101 claims were settled, 31 were dismissed voluntarily, 6 were dismissed by courts, and 3 courts granted plaintiffs injunctive relief). According to DOJ officials, "most deadline suits are resolved through a negotiated settlement agreement because in the majority of them, it is undisputed that a statutory deadline was missed." *Id.* at 20. Importantly, agreements to settle deadline suits "only include a commitment to perform a mandatory Section 4 action by an agreed-upon schedule and [do] not otherwise predetermine or prescribe a specific substantive outcome for the actions to be completed by the Services." *Id.* at 21.

^{78.} *Id.* at 24–25 (finding that "[a]s of September 2016, FWS's backlog of overdue Section 4 actions included nearly 600 12-month findings on listing petitions and other listing-related actions that FWS has been unable to address while it focused on completing its litigation-related workload").

^{79.} See Greve, supra note 48, at 341–42.

The GAO ESA Report, however, does not assess the relative merits of the actions prompted by the deadline suits versus those the FWS would have otherwise pursued. A 2010 article by Eric Biber and Berry Brosi uses the FWS's metric for a species' "recovery priority"⁸⁰ to assess the merits of ESA species listing petitions and deadline suits.⁸¹ The authors found that "there is little difference between petitions and agency initiation in overall listing success rates."82 Moreover, the species that were the subject of citizen actions were, on average, under greater biological threat than the species identified by the FWS⁸³ and were more likely to be threatened by development.⁸⁴ The authors suggest that, because of the politics surrounding pervasive conflicts with development, citizen actions often provide the only impetus for protecting many species. Further, because citizen groups often have superior knowledge about local species—particularly given limited government budgets⁸⁵—their actions often bring essential technical data and knowledge to the attention of federal agencies.⁸⁶ The authors concluded that "what is remarkable about [citizen suits] under the ESA is that they are able to achieve results that are, from a 'technical perspective' . . . , as

82. *Id.* at 351–52, 353 (specifically finding that 21 percent of the species listed in the FWS's top candidate categories were ultimately listed under the statute versus 36 percent of species citizens petitioned for listing between 1973 and 1994).

83. *Id.* at 358–59, 361 (concluding that "[w]ith respect to threat level, species that were the subject of litigation were consistently at greater threat than non-litigated species. As between petition-identified and agency-identified species, however, we found no statistically significant difference in threat level.").

84. *Id.* (concluding that "with respect to potential development conflicts, petitioned species were more likely to present potential conflicts than agencyidentified species, but no statistically significant difference was identifiable for litigated versus non-litigated species").

85. *Id.* at 334 (noting that the FWS acknowledges that "for the past several years it has not been appropriated enough funds to officially list all of the hundreds of species that the agency itself concedes warrant listing under the Act"); *see also* Oliver A. Houck, *The Endangered Species Act and Its Implementation by the U.S. Departments of Interior and Commerce*, 64 U. COLO. L. REV. 277, 292–96 (1993).

86. Biber & Brosi, *supra* note 35, at 325 (highlighting the ability of citizen groups "to gather diffuse information about environmental problems to help an agency achieve its goals").

^{80.} Biber & Brosi, *supra* note 35, at 335 (describing a species' recovery priority as including (1) the degree to which it is endangered, (2) potential for recovery, (3) biological uniqueness of the species, and (4) conflicts between species protection and economic development).

^{81.} *Id.* at 348–49 (describing their approach as beginning with the hypothesis that "FWS will identify species that face greater threats, cost less to recover, and pose a lower risk of conflict—in other words, FWS will be an expert balancing agency compared to outside groups").

good as or better than those of the agency acting alone."⁸⁷ Thus, rather than undermining implementation of the ESA, the authors found that citizen petitions and suits have augmented agency technical information and bolstered meritorious species protections where economic conflicts appear to constrain agency action most.

Despite the important insights provided by these excellent studies, our understanding of the volume, patterns, motivations, and objectives of citizen suits under NEPA and the ESA remains rudimentary. While resource constraints in and of themselves appear to mitigate (if not preclude) the negative outcomes critics continue to cite, the preceding studies provide evidence that suits to force species listing under the ESA can have a significant effect on agency priority setting. However, these suits were unique for several reasons, including the volume of litigation, the large number of species (almost 1,500), and the extraordinary technical challenges of listing determinations under the ESA. Despite the limited empirical support, political opposition to citizen suits continues to rise in Congress, and efforts are growing to radically cut back and reform environmental laws.88 In the current political climate, the threats to NEPA and the ESA are particularly acute, which makes it all the more important to have an accurate understanding of how the statutes operate as well as the role and impact of citizen-led litigation on their implementation.

This Article seeks to fill in several important gaps in the existing literature, particularly by providing more accurate, upto-date estimates of the volume of litigation and how it varies regionally. This information is essential to informing public understanding about how local politics influence citizen suit activity and how that activity complements (or frustrates) agency action that is essential to meeting statutory mandates. Because judges play an essential role in reviewing agency action, we also look at how the judges' views and differences across circuits affect the filing and resolution of citizen suits.

^{87.} *Id.* at 325. Biber and Brosi also conclude that "it does not appear that petitions have significantly interfered with the FWS's agenda-setting in terms of the three characteristics that we analyzed. Litigation appears to have had more impact on agenda-setting, as it appears to have focused more on species that pose a potential conflict with other development projects." *Id.* at 363.

^{88.} See supra notes 19–21 and accompanying text.

II. THE PATTERNS AND POLITICS OF LITIGATION UNDER NEPA AND THE ESA

NEPA and the ESA are among the most important federal environmental statutes and arguably the leading statutes in the subfield of natural resources law.89 Within public law, NEPA exemplifies a purely procedural legal framework that covers all federal agencies, whereas the ESA is narrower in scope and contains a mix of procedural elements and strict substantive standards. Both statutes implicate important economic interests in the public and private spheres, and they often involve highly technical questions that require government officials to make difficult scientific judgments. These characteristics create a valuable context in which to evaluate citizen suits because they raise countervailing factors weighing for and against deferring to agency judgment. For example, the complexity and uncertainty in the underlying science favors greater deference to agencies (particularly on substantive regulatory determinations). The two statutes' procedural focus and purpose to promote adequate consideration of environmental impacts by federal agencies who may not otherwise be inclined to do so, however, is premised on a less deferential approach to judicial review.

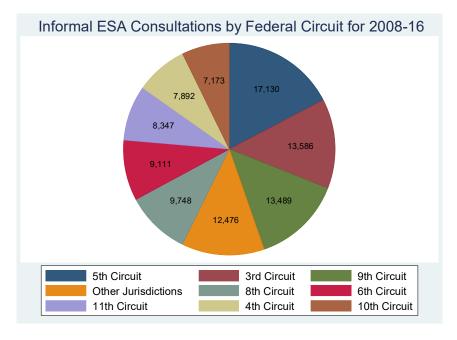
What stands out most clearly is the geographic distribution of the cases. Roughly half were filed in the Ninth Circuit and another 12–15 percent were filed in the D.C. Circuit, meaning that two-thirds of the litigation occurred in just two circuits. This pattern of litigation is far from preordained by the geographic distribution of the actions that could be challenged in court. NEPA covers any federal action that has significant environmental impacts.⁹⁰ While one would anticipate some geographic variation, there is no reason to expect that the cases should be so disproportionately concentrated in these circuits,

^{89.} See Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Comm'n, 449 F.2d 1109, 1111 (D.C. Cir. 1971) (referring to NEPA as "the broadest and perhaps most important of the recent [environmental] statutes"); Daniel J. Rohlf, *There's Something Fishy Going on Here: A Critique of the National Marine Fisheries Service's Definition of Species Under the Endangered Species Act*, 24 ENVTL. L. 617, 671 (1994) ("The ESA stands as one of the United States strongest and most important environmental statutes. It is a bulwark against erosion of biological diversity, a worsening problem which looms as one of humankind's major challenges.").

^{90. 42} U.S.C. § 4332(2)(C) (2018).

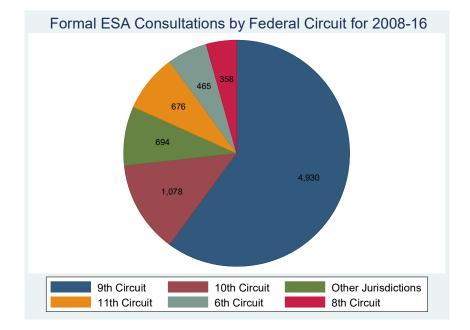
particularly given population and development patterns nationally. Yet, EPA data reveal that roughly 47 percent of EISs prepared from 2012 to 2016 involved actions in the Ninth Circuit. Similarly, under the ESA informal consultations were evenly distributed across the country⁹¹ (with no circuit containing more than about 15 percent of the consultations). Formal consultations, however, (like environmental impact statements under NEPA) were concentrated in the Ninth Circuit, which encompassed about 60 percent of the formal consultations from 2008 to 2016.⁹² Litigation under each statute mirrors these patterns, which we believe reflects the influence of local politics on compliance with NEPA and the ESA.

FIGURE 1. Graphs Depicting Informal and Formal Consultations Under the ESA by Circuit.



91. See infra Figure 1.

^{92.} For the difference between informal and formal consultations, see 3 GEORGE CAMERON COGGINS & ROBERT L. GLICKSMAN, PUBLIC NATURAL RESOURCES LAW §§ 29:26 to 29:27 (Thomson Reuters 2d ed. 2007). Informal consultation "is an optional process that includes all discussions, correspondence, etc., between the Service and the Federal agency or the designated non-Federal representative, designed to assist the Federal agency in determining whether formal consultation or a conference is required." 50 C.F.R. § 402.13(a) (2017). Formal consultation is required if an agency determines that its "action may affect listed species or critical habitat." Id. § 402.14(a).



As noted in Part I, much of the literature on citizen suits has focused on enforcement suits against private entities. Framing the issues this way has reinforced preoccupations with claims that citizen suits divert agency priority setting, are unconstrained by political accountability, and are inadequately policed by federal courts. NEPA is limited to legal actions against the federal government and, in practice, very few of the cases filed under the ESA (about 2 percent) involve direct actions against private actors.⁹³ The normative concerns are therefore different in these contexts; although, similar concerns about diversion of agency resources have been raised with respect to petitions to list new species under the ESA.⁹⁴ The posture of these cases therefore diminishes the persistent normative criticisms of citizen suits in the academic literature, both because powerful federal laws are not being wielded against private entities, and be-

^{93.} There were a very small number of cases alleging violations of the statute's prohibition on taking endangered species. 16 U.S.C. § 1538(a)(1)(B) (2018). In total, there were forty-five district court and two appellate cases over the sixteen-year period, and 78 percent of them involved state or federal entities. At the district court level, twenty-two of these suits were against federal agencies, thirteen involved state entities, and ten involved individuals or businesses.

^{94.} See supra notes 67–78 and accompanying text.

cause the claims are limited to requiring agencies to comply with statutory mandates. The procedural checks that NEPA and the ESA place on agency discretion reinforce these mitigating factors. Nevertheless, there is no reason that these differences should affect the distribution of cases geographically or the volume of cases filed. Accordingly, while these differences must be taken into account, they do not detract from the most important trends we observe in our data.

Though we began this project in an effort to gain a comprehensive understanding of litigation under NEPA and the ESA descriptively, we also formulated five central hypotheses based on prior empirical work and our knowledge of the two statutes. The hypotheses fall into three basic categories: (i) those related to the practical and political constraints on citizen suits (Hypotheses 1–2), (ii) those related to the influence of judicial ideology and presidential politics on case outcomes (Hypotheses 3–4), and (iii) those related to the interests at stake for environmental plaintiffs (Hypothesis 5). The specific hypotheses are as follows:

Hypothesis 1: Citizen suits will be filed more frequently in jurisdictions where public support for environmental policies is high and will rarely be filed in jurisdictions in which public support is low.

Hypothesis 2: The limited resources of environmental groups drastically limits the capacity of citizen suits to meaningfully supplement or prod implementation and enforcement of NEPA and the ESA.

Hypothesis 3: The balance of Republican- and Democrat-appointed judges and the distribution of cases across circuits has a significant impact on the degree to which federal courts provide an effective check on agency implementation and enforcement of environmental laws.

Hypothesis 4: Plaintiffs will succeed at higher rates during the Bush Administration than the Obama Administration in federal court because compliance with NEPA and the ESA was, on average, less rigorous during the Bush Administration.

Hypothesis 5: Environmental plaintiffs are more likely to

prevail in NEPA and ESA lawsuits than other classes of plaintiffs because their interests are generally aligned with the statutory mandates.

The hypotheses were tested using a mix of formal logistic regression and close examination of descriptive statistics. Overall, we find strong support for Hypotheses 1 and 2 along with qualified support for Hypotheses 3–5. These results reveal that while the rates of NEPA and ESA litigation vary dramatically by region, case outcomes are surprisingly uniform with the notable exception of the Ninth Circuit. The most striking result is the strong alignment between local politics and the volume of citizen suits in a jurisdiction-citizen suits are filed overwhelmingly in politically liberal jurisdictions with strong environmental constituencies. The political affiliation of the judge in question and the politics of presidential administrations are also found to be important factors. These results suggest that judicial ideology is a more significant factor when presidential administrations have an ideological outlook that conflicts with the political alignment of the governing statute in judicial review of agency action. Depending on the ideological balance of federal judges, this can either enhance or erode the capacity of judicial review to check agency action.

Our statistical analysis in this part proceeds as follows. Section A provides a discussion of the legal frameworks and compliance statistics for NEPA and the ESA. Section B concludes that citizen suits are subject to resource constraints and tend to be driven by local politics. Section C examines the influence of local, executive, and judicial politics on citizen suits.

A. Legal Frameworks and Compliance Statistics for NEPA and the ESA

NEPA, which went into effect on January 1, 1970, enunciates a national policy to "encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; [and] to establish the understanding of the ecological systems and natural resources important to the Nation."⁹⁵ It declares a "continu-

^{95. 42} U.S.C. § 4321.

ing policy of the Federal government... to use all practicable means and measures... to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."⁹⁶ NEPA even notes Congress's recognition "that each person should enjoy a healthful environment."⁹⁷

Notwithstanding these ambitious goals, NEPA has only one significant operative provision. It directs all federal agencies to "include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement," which is referred to as an environmental impact statement (EIS).98 Each EIS is also required to consider alternatives to the proposed action, including a comparative evaluation of the environmental impacts of these alternatives.⁹⁹ Agencies need not prepare an EIS in all cases. Under CEQ's regulations, a proposed action is "categorically excluded" from the EIS process if it will not individually or cumulatively have significant environmental effects. Upon issuance of such a finding, an agency's NEPA responsibilities cease.¹⁰⁰ Even if an action is not categorically excluded, the proposing agency may prepare an environmental assessment (EA), along with a finding of no significant impact, if it lacks one of the triggers for preparation of an EIS.¹⁰¹ Approximately 95 percent of NEPA decisions are covered by categorical exclusions (CEs), 5 percent are assessed under EAs, and less than 1 percent are evaluated under EISs.¹⁰² Although judicial review of alleged NEPA noncompliance is available under

^{96.} *Id.* § 4331(a). To fulfill this policy, the statute makes it "the continuing responsibility of the Federal government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources" so that the nation may achieve several goals, including assuring a "safe, healthful, productive and esthetically and culturally pleasing" environment; attaining "the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences"; preserving "important historic, cultural, and natural aspects of our national heritage"; and protecting "an environment which supports diversity and variety of individual choice." *Id.* § 4331(b).

^{97.} *Id.* § 4331(c).

^{98.} Id. § 4332(2)(C).

^{99.} Id. Agencies must consider appropriate alternatives even when not required to prepare an EIS. Id. § 4332(2)(E).

^{100. 40} C.F.R. § 1508.4 (2017).

^{101.} Id. §§ 1501.3, 1501.4, 1508.13.

^{102.} Adelman & Glicksman, *supra* note 58, at 16.

the APA,¹⁰³ its scope is limited to procedural violations, such as failure to prepare an EIS when the statute requires one¹⁰⁴ or preparation of an inadequate EIS.¹⁰⁵ The Supreme Court has determined that NEPA has no substantive content: "it is now well settled that NEPA itself does not mandate particular results, but simply prescribes the necessary process."¹⁰⁶

The ESA's goals are similarly ambitious. Its declared purposes are "to provide a means by which the ecosystem upon which endangered and threatened species depend may be conserved [and] to provide a program for the conservation of such endangered and threatened species."¹⁰⁷ Two agencies are responsible for overseeing implementation of the ESA: the Interior Department's FWS and the Commerce Department's NMFS (collectively, "the Services").¹⁰⁸ These agencies are charged with listing the plant or animal species that qualify as endangered or threatened¹⁰⁹ and designating these species' critical habitat.¹¹⁰ The statute provides for the preparation of recovery plans for listed species,¹¹¹ although the plans are largely immune to judicial challenges.¹¹² Other requirements are enforceable, however. Section 7 of the ESA imposes a duty on all federal agencies, in consultation with one of the Services, to insure that the actions

110. Id. § 1533(a)(3), (b)(2). Critical habitat is defined at *id.* § 1532(5).

^{103.} The APA provides the cause of action, 5 U.S.C. 702 (2012), while subject matter jurisdiction must be based on another statute, such as the federal question statute, 28 U.S.C. 1331 (2018).

^{104.} See ROBERT L. GLICKSMAN ET AL., ENVIRONMENTAL PROTECTION: LAW AND POLICY 300 (Wolters-Kluwer 8th ed. 2019).

^{105.} E.g., WildEarth Guardians v. U.S. Bureau of Land Mgmt., 870 F.3d 1222 (10th Cir. 2017).

^{106.} Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989); see also Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227–28 (1980); Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc., 435 U.S. 519, 558 (1978).

^{107. 16} U.S.C. § 1531(b) (2018). Congress also declared a policy "that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance" of the ESA's purposes. *Id.* § 1531(c)(1).

^{108.} The NMFS has jurisdiction over anadromous and ocean-based aquatic life, while the FWS has jurisdiction over freshwater and land-based plants and animals. Jennifer Jeffers, Note, *Reversing the Trend Towards Species Extinction, or Merely Halting It? Incorporating the Recovery Standard into ESA Section 7 Jeopardy Analyses*, 35 ECOLOGY L.Q. 455, 457 n.3 (2008).

^{109. 16} U.S.C. § 1533(a)(1), (b)(1). For the difference between endangered and threatened species, see *id.* § 1532(6), (20).

^{111.} Id. § 1533(f).

^{112.} See, e.g., Friends of Blackwater v. Salazar, 691 F.3d 428 (D.C. Cir. 2012); Fund for Animals, Inc. v. Rice, 85 F.3d 535 (11th Cir. 1996).

they authorize, fund, or carry out will not "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of its critical habitat.¹¹³ Similar to NEPA's EIS provision, this mandate imposes strict procedural duties on federal agencies,¹¹⁴ which annually involve roughly eleven thousand informal consultations and nine hundred formal consultations.¹¹⁵ Unlike NEPA, however, the ESA contains substantive standards that agencies must meet. Agencies cannot take actions that violate their substantive duty to avoid jeopardizing listed species or adversely modifying their critical habitats under Section 7.116 Section 9 of the ESA prohibits the "taking" of endangered species by either government agencies or private landowners.¹¹⁷ The ESA, unlike NEPA, has a judicial review provision that covers the first two categories of citizen suits described in the Introduction.¹¹⁸ It authorizes any person to file a civil action in federal district court to enjoin any person, including a federal agency, alleged to be in violation of the statute or its implementing regulations.¹¹⁹

115. Malcom & Li, supra note 19, at 2.

118. See supra notes 6–18 and accompanying text.

^{113. 16} U.S.C. § 1536(a)(2). The ESA also imposes a duty—known as the affirmative conservation duty—on federal agencies to "utilize their authorities in furtherance of the [ESA's purposes] by carrying out programs for the conservation" of listed species. *Id.* § 1536(a)(1). This duty is rarely invoked in litigation in comparison to challenges to alleged noncompliance with Section 7(a)(2)'s no jeopardy provision. For discussion of the cases implicating the affirmative conservation duty, see 3 COGGINS & GLICKSMAN, *supra* note 92, § 29:38.

^{114.} For example, courts may enjoin actions on which agencies should have consulted with the Services but failed to do so. *See, e.g.*, California ex rel. Lockyer v. U.S. Dep't of Agric., 575 F.3d 999 (9th Cir. 2009); Nat. Res. Def. Council v. Houston, 146 F.3d 1118 (9th Cir. 1998). As is the case with an agency's failure to prepare an EIS as required by NEPA, a court may set aside and remand an agency's failure to consult as required by section 7 of the ESA under the APA. *See* 5 U.S.C. § 706(2)(D) (2018) (authorizing courts to set aside agency actions "without observance of procedure required by law").

^{116.} See, e.g., Tenn. Valley Auth. v. Hill, 437 U.S. 153 (1978) (enjoining completion of the Tellico Dam); Pac. Rivers Council v. Thomas, 30 F.3d 1050 (9th Cir. 1994).

^{117. 16} U.S.C. § 1538(a)(1)(B). The Supreme Court deferred to the Interior Department's position that habitat modification may amount to a taking. Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or., 515 U.S. 687 (1995).

^{119. 16} U.S.C. § 1540(g)(1). Such suits include those seeking to compel the Services to perform nondiscretionary statutory duties to list a species or designate its critical habitat. The citizen suit provision does not cover improper implementation of section 7's no jeopardy provision, however, requiring litigants asserting such section 7 violations to bring suits under the APA. See Bennett v. Spear, 520 U.S. 154, 171–74 (1997) (concluding that claims that one of the Services improperly implemented substantive provisions such as the no jeopardy provision

B. Citizen Suits Are Limited by Resources and Guided by Local Politics

This Article analyzes litigation under NEPA and the ESA between 2001 and 2016. On annual average, about one hundred NEPA cases were filed in district courts, and about twenty-five appeals were filed. To make the review process manageable, we analyzed samples of about 460 district court and 330 circuit court opinions with NEPA claims. The volume of cases was smaller under the ESA, however, with roughly thirty district court cases and about ten appeals filed each year. Given the lower volume, we coded the entire population of ESA cases with dispositive opinions issued during this sixteen-year period.¹²⁰ The number of cases is strikingly small relative to the number of federal actions potentially subject to NEPA and the volume of consultations that occur annually under the ESA, both of which number in the thousands. Even for the subset of federal actions with a heightened likelihood of triggering the statutes' review procedures-those subject to an EIS under NEPA or a formal consultation under the ESA-the number of cases is low. Roughly one-quarter of EISs were challenged in court; only a tiny fraction of the EAs and CEs, which account for the vast majority of compliance efforts under NEPA, were challenged. Similarly, under the ESA less than 5 percent of formal consultations and a tiny fraction of informal consultations were subject to legal challenge.¹²¹ Whether based on absolute or relative numbers, these results suggest that worries about the floodgates opening on litigation are warrantless and instead highlight the limited reach of citizen suits.

About three-quarters of the district and circuit court cases involved federal agencies that either manage federal lands or have principal authority for protecting natural resources.¹²² The

are not reviewable under § 1540(g)(1)(A) or (C) of the citizen suit provision).

^{120.} See infra Appendix for details about the empirical methods and protocols. 121. Under the ESA, a little more than 6,829 formal consultations were conducted between January 2008 and April 2015, or an average of about nine hundred per year. Malcom & Li, *supra* note 19, at 2. By contrast, only about thirty ESA cases are filed each year, such that even assuming that all of them involve challenges to formal consultations, less than 5 percent of formal consultations are challenged in court.

^{122.} Two federal agencies, the U.S. Forest Service and Bureau of Land Management, accounted for more than 50 percent of the district court NEPA cases, and the FWS and USFS accounted for almost 50 percent of the ESA cases.

focus of NEPA and ESA litigation on these agencies, and on federal lands in particular, influenced the geographic distribution of cases across the federal circuits. Most federal land is located in western states, suggesting that one would expect cases to be filed disproportionately in the Ninth and Tenth Circuits, which together encompass 99 percent of Bureau of Land Management (BLM) land, 85 percent of USFS land, and 91 percent of NPS land.¹²³ We find that about 60 percent of the district court cases under each statute were filed in either the Ninth or Tenth Circuits and that 15 percent were filed in the D.C. Circuit.¹²⁴ The distribution of appeals across circuits essentially matched the district court filings.¹²⁵ At the state level, two-thirds of the district court cases under NEPA and 80 percent of the ESA cases were filed in just ten states, ¹²⁶ with just three states (California, Montana, Oregon) and the District of Columbia accounting for roughly half of the cases. The actions on which NEPA and ESA cases originated were overwhelmingly in politically centrist states, Democratic states, or spanned multiple states; just 12 and 15 percent of the underlying actions in ESA and NEPA cases, respectively, originated in Republican states.¹²⁷ The large number of cases in the D.C. Circuit was driven by a different factor—it is typically an alternative venue to the circuit in which a federal action is located because most federal agencies are based in D.C.¹²⁸

^{123.} CAROL HARDY VINCENT ET AL., CONG. RESEARCH SERV., FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA 9–11, 21 (2017), https://fas.org/sgp/crs/misc/R42346.pdf [https://perma.cc/57VR-A4Q7].

^{124.} See infra Figure 2.

^{125.} Under NEPA, 52 percent of the appeals were in the Ninth Circuit, 10 percent in the D.C. Circuit, 12 percent in the Tenth Circuit, and 5.7 percent in the Sixth Circuit; under the ESA, 64 percent of the appeals were in the Ninth Circuit, 15 percent in the D.C. Circuit, 7 percent in the Eleventh Circuit, and 5 percent in the Tenth Circuit.

^{126.} The states are Arizona, California, Colorado, District of Columbia, Florida, Idaho, Montana, Oregon, and Washington, with New York and Alaska rounding out the ten under NEPA and the ESA, respectively. Only Colorado, Florida, and New York are outside the Ninth or D.C. Circuits.

^{127.} We used the index for citizen ideology developed by William D. Berry, et al. See William D. Berry et al., Assessing the Validity of Enns and Koch's Measure of State Policy Mood, 15 ST. POL. & POL'Y Q. 425 (2015). The citizen ideology index was used to categorizes states into three categories: (1) Republican states (<45), (2) centrist states (45> and <55), and (3) Democratic states (>55). The index for each state was averaged over the years 2001–2016 to cover the period of the two studies.

^{128.} See 28 U.S.C. § 1391(e) (2018) (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).

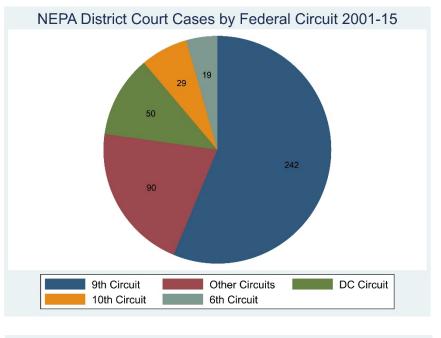
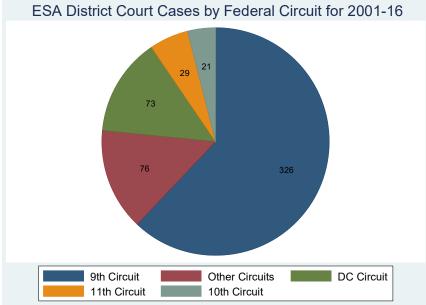


FIGURE 2. NEPA and ESA District Court Cases by Circuit.



In the Ninth Circuit, the concentration of cases may also be influenced by forum shopping. As discussed further in Section II.B, plaintiffs prevailed in the Ninth Circuit at statistically significant higher rates in NEPA and ESA district court cases and in NEPA cases on appeal. While the number of cases and success rates are suggestive, we find that only about 15 percent of the NEPA and ESA district court cases involved federal actions that spanned more than one circuit.¹²⁹ Thus, while we observed a clear preference for the Ninth and D.C. Circuits,¹³⁰ the small number of cases that could be filed in other circuits limited the 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 filing cases under either statute. If this were a significant factor, it could depress the number of cases outside the Ninth Circuit and contribute to the skewed distribution of cases geographically. In either case, we find that most of the legal precedent under the two statutes has evolved in the Ninth and D.C. Circuits, but the Ninth Circuit is clearly the more dominant of the two.

The modest number of cases filed annually suggests that, whether due to strategic considerations or limited resources, plaintiffs are selective in the cases they file. This inference is bolstered by the higher success rates of environmental organizations,¹³¹ which filed 65–80 percent of the cases under NEPA and the ESA.¹³² Environmental plaintiffs, whether national or local organizations, were more successful—prevailing on average at rates ten to twenty percentage points higher—than other plain-

^{129.} Just 12 percent of the NEPA cases and roughly 17 percent of the ESA cases spanned more than one circuit.

^{130.} Together, the two circuits accounted for about 80 and 85 percent of the district court ESA and NEPA cases, respectively, with the Ninth Circuit accounting for more than 50 percent of the cases alone.

^{131.} 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 ESA cases.

^{132.} Environmental organizations accounted for about 80 percent of the district and circuit court cases under the ESA, with local environmental groups filing about twice as many cases as national environmental groups in our sample. Under NEPA, local environmental groups filed 44 percent of the cases and national environmental groups filed 34 percent; at the circuit court level, they filed 40 and 24 percent of the NEPA 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.

tiffs.¹³³ The heightened success rates of environmental plaintiffs also changed across the two administrations. For example, while minor differences existed in case outcomes under the ESA between environmental and other plaintiffs during the Obama Administration (about seven percentage points), a much larger difference was observed during the Bush Administration (about eighteen percentage points).¹³⁴ Thus, while the success rate of nonenvironmental plaintiffs was essentially flat, it varied dramatically for environmental plaintiffs between the administrations.¹³⁵ The success rates of environmental organizations during the Obama Administration were also comparable to the averages for challenges to agency action in a wide range of empirical studies,¹³⁶ and they were far higher than the averages for administrative challenges during the Bush Administration.¹³⁷

^{133.} Under NEPA, environmental plaintiffs prevailed in 35 percent of the district court cases and 27 percent of the appeals versus just 16 percent and 14 percent, respectively, for other plaintiffs. Similarly, under the ESA environmental plaintiffs prevailed in 40 percent (national groups—46 percent, local groups—34 percent) of the district court cases and 29 percent of the appeals, whereas other plaintiffs prevailed in 34 percent and 24 percent, respectively.

^{134.} During the Obama Administration, environmental plaintiffs in ESA cases prevailed in 32 percent of the district court cases versus 40 percent for other plaintiffs, whereas the spread was 47 percent versus 29 percent, respectively, during the Bush Administration. In the NEPA district court cases during the Bush Administration, environmental organizations prevailed in 46 percent and other plaintiffs in just 20 percent of the cases; during the Obama Administration, they prevailed in 23 and 13 percent of the cases, respectively.

^{135.} A similar pattern is observed at the circuit level, where success rates were roughly the same (about 23 percent) during the Obama Administration, but diverged during the Bush Administration (35 percent versus 19 percent for environmental and other plaintiffs, respectively).

^{136.} See Thomas J. Miles & Cass R. Sunstein, The Real World of Arbitrariness Review, 75 U. CHI, L. REV. 761, 778-79 (2008) (reporting data on administrative review cases involving EPA indicating that agencies prevailed on average in 72 percent 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 percent of the cases at the circuit level). A recent study finds that success rates in adjudicated cases in federal courts fell from 70 percent in 1985 to 30 percent in 2017. Alexandra D. Lahav & Peter Siegelman, The Curious Incident of the Falling Win Rate: Individual vs. System-Level Justification and the Rule of Law, 52 U.C. DAVIS L. REV. 1371, 1373 (2019). Thus, plaintiff success rates in ESA cases are similar to the recent figures on success rates in civil cases generally in the federal courts.

^{137.} See infra Table 1.

These findings, along with the roughly proportional share of appeals by environmental organizations (i.e., rates comparable to other plaintiffs), provide valuable evidence that NEPA and ESA cases were generally grounded in legitimate legal claims.

Statute	tatute Admin. District Court			Appellate Court			
Judge's Political Affiliation		Republican	Democratic	Both	Republican	Democratic	Both
ECA	Bush Admin.	34	53	47	21	52	35
ESA	Obama Admin.	23	41	32	19	21	20
NEDA	Bush Admin.	38	52	46	17	51	36
NEPA	Obama Admin.	16	29	23	12	19	16

TABLE 1. Success Rates of Environmental Plaintiffs by Administration and Court.¹³⁸

These simple descriptive statistics highlight the concentration of citizen suits geographically and across federal agencies. Litigation was highly skewed toward more politically centrist and liberal states, both within and outside of the Ninth Circuit. While federal permits—and indirectly, private actions—were frequently the source of federal action, much of the litigation under both statutes is focused on public lands and species management decisions. The concentration of cases in liberal jurisdictions suggests that local politics influenced where cases were filed and that the elevated threat of lawsuits increased the rigor of agency compliance because the numbers of EISs under NEPA and formal consultations under the ESA follow the same geographic pattern. These findings suggest that citizen suits raise the bar for federal compliance,¹³⁹ but they do so selectively

^{138.} The numbers in the table correspond to the percent of cases won by environmental plaintiffs.

^{139.} See Biber & Brosi, supra note 35, at 379 (concluding that ESA "citizen suits may lead to better technical decisions"); Robert Shaffer, Judicial Oversight in the Comparative Context: Biodiversity Protection in the United States, Australia, and Canada, 43 ENVTL. L. REP. NEWS & ANALYSIS 10169, 10182 (2013) ("[T]he presence of litigation seems to have improved the procedural effectiveness of the American listing system, enforcing the ESA's deadlines and other rules in a relatively robust fashion."); see also Jane G. Steadman, Protecting Water Quality and Salmon in the Columbia Basin: The Case for State Certification of Federal Dams, 38 ENVTL. L. 1331, 1354–56 (2008) (asserting that litigation alleging noncompliance with the

where there is public support. The threat of litigation (especially in circuits where courts have responded favorably to citizen suits) may, for example, dissuade agencies from ignoring statutory mandates or short-circuiting compliance efforts.¹⁴⁰

C. Disentangling the Influence of Local, Executive, and Judicial Politics

We also find that case outcomes are influenced by the presidential administration, the circuit in which a suit is filed, and the class of plaintiff at the district and appellate court levels (Hypotheses 1, 3–5). However, the descriptive statistics do not include any controls and are thus inconclusive on their own. In this Section, we employ statistical regression with key control variables to explore these trends further.

The analysis that follows uses a variety of statistical methods to assess the relative influence of local, executive, and judicial politics on case outcomes and the geographic distribution of citizen suits.¹⁴¹ We find substantial differences in outcomes between cases filed during the Bush and Obama Administrations. Specifically, environmental plaintiffs in NEPA cases were about twice as likely to prevail in district and appellate courts during the Bush Administration as they were during the Obama Administration.¹⁴² The differences were smaller in the ESA cases,

ESA's no jeopardy provision in connection with hydropower plant operation has "achieved a measure of improved water quality").

^{140.} See Doremus, *supra* note 67, at 66 (claiming that the ESA "is a robust, durable institutional mechanism for constraining the inevitable tendency of agencies to avoid political controversy by softening protective mechanisms").

^{141.} 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. Compare Joshua B. Fischman & David S. Law, What Is Judicial Ideology, and How Should We Measure It?, 29 WASH. U. J.L. & POLY 133, 155 (2009) (noting that "proxy variables have traditionally included the party of the President who appointed the judge"), with Hon. Harry T. Edwards & Michael A. Livermore, Pitfalls of Empirical Studies that Attempt to Understand the Factors Affecting Appellate Decisionmaking, 58 DUKE L.J. 1895, 1906-07 (2009) (bemoaning "the lack of a good proxy for judicial ideology, which has caused empirical legal scholars to dubiously equate the political party of the president who appoints a judge with that judge's 'ideology'").

^{142.} Environmental plaintiffs won 42 percent of the NEPA district court cases

however, with environmental plaintiffs about 50 percent more likely to prevail during the Bush Administration at both the district and appellate court levels.¹⁴³ These results support our hypothesis that compliance with NEPA and the ESA was less rigorous during the Bush Administration (Hypothesis 3), but other factors could also account for the differences.

Significant impacts were clearly associated with the circuit of origin. Environmental plaintiffs prevailed at the district court level in both NEPA and ESA cases at rates ten to twenty-five percentage points higher in the Ninth Circuit than in other circuits (collectively).¹⁴⁴ The D.C. Circuit, which had the secondhighest number of cases, was a somewhat less favorable venue, with rates that were about ten percentage points lower than the Ninth Circuit in district court cases under both statutes. On appeal, the Ninth Circuit stood out during the Bush Administration, with environmental plaintiffs advantaged in ESA and NEPA cases by fifteen and thirty percentage points, respectively. However, while this advantage persisted for the ESA cases, it largely disappeared for NEPA cases during the Obama Administration.¹⁴⁵ These finding suggest that district judges in the Ninth Circuit were less deferential to agency determinations than their counterparts in other circuits, whereas Ninth Circuit appellate judges were less deferential for ESA cases across both administrations, but for NEPA cases less deferential only during the Bush Administration.

during the Bush Administration versus 23 percent of the NEPA district court cases during the Obama Administration; at the appellate level, plaintiffs won 36 percent of the cases during the Bush Administration versus 17 percent of the cases during the Obama Administration.

^{143.} Under the ESA, plaintiffs won 47 percent of the district court cases during the Bush Administration versus 32 percent of the district court cases during the Obama Administration; at the appellate level, plaintiffs won 34 percent of the cases during the Bush Administration versus 22 percent of the cases during the Obama Administration.

^{144.} Under NEPA, environmental plaintiffs won 50 percent of the district court cases in the Ninth Circuit, 42 percent in the D.C. Circuit, and 25 percent in other circuits during the Bush Administration; these rates dropped to 28 percent, 21 percent, and 6 percent, respectively, during the Obama Administration. Under the ESA, environmental plaintiffs won 52 percent of the district court cases in the Ninth Circuit, 42 percent in the D.C. Circuit, and 29 percent in other circuits during the Bush Administration; these rates dropped to 28 percent, and 6 percent, respectively, during the Obama Administration.

^{145.} Environmental plaintiffs in the Ninth Circuit during the Obama Administration prevailed in 19 percent of the NEPA cases versus 14 percent in all other circuits collectively; for ESA cases, plaintiff success rates dropped to 27 and 11 percent, respectively.

The influence of judicial ideology on case outcomes (particularly at the appellate level) was more complex than the impact of the circuit and presidential politics. It was also less pronounced. At the district court level, plaintiffs' success rates were roughly fifteen percentage points higher before Democratic-appointed judges than Republican-appointed judges in NEPA and ESA cases filed during the Bush Administration.¹⁴⁶ The differential dropped to about ten percentage points, however, during the Obama Administration and was no longer statistically significant.¹⁴⁷ These results suggest that the influence of judicial ideology declined with the shift in presidential politics: it was statistically significant when the conservative ideology of the Bush Administration was in tension with the liberal statutory mandates of NEPA and the ESA but was neutralized when the priorities of the Obama Administration aligned with those of the statutes.

At the appellate level, the influence of judicial ideology was complicated by the permutations of three-judge panels. Similar to prior studies,¹⁴⁸ we observed the greatest differences in case

^{146.} For the NEPA cases, plaintiffs prevailed before Republican and Democratic judges in 31 and 44 percent of the cases (p-value of 0.046), respectively; for ESA cases, plaintiffs prevailed before Republican and Democratic judges in 33 and 51 percent of the cases (p-value of 0.003), respectively. The p-value corresponds to the likelihood of observing the results if the effect were merely the product of random variation.

^{147.} For the NEPA cases, plaintiffs prevailed before Republican and Democratic judges in 16 and 23 percent of the cases (p-value 0.265), respectively; for ESA cases, plaintiffs prevailed before Republican and Democratic judges in 27 and 39 percent of the cases (p-value of 0.071), respectively.

^{148.} 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, Essay, Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals, 107 YALE L.J. 2155 (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"); Thomas J. Miles & Cass R. Sunstein, Do Judges Make Regulatory Policy? An Empirical Investigation of Chevron, 73 U. CHI, L. REV. 823, 823 (2006) (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

outcomes when panels were ideologically uniform—either all Republican or all Democratic appointees—whereas ideologically mixed panels tended to moderate plaintiffs' success rates.¹⁴⁹ During the Bush Administration, environmental plaintiffs prevailed before all-Democratic panels at rates that were about fifty percentage points above those before all-Republican panels.¹⁵⁰ Similar to the district court cases, the impact of judicial ideology diminished during the Obama Administration, with plaintiffs' success rates in NEPA and ESA cases dropping overall and disparities across panels with different ideological mixes generally declining by ten to fifteen percentage points.¹⁵¹

We cannot know whether the plaintiffs' success rates under either statute outside the period covered by our study are closer to the level observed during the Bush or Obama Administrations. Nevertheless, the observed decline in the influence of judicial ideology on politically uniform panels is striking. Further, these results may be generalizable to statutes that reflect traditionally conservative issues (e.g., immigration, regulatory reform, and school choice). In those contexts, the pattern would be

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"); Richard L. Revesz, Environmental Regulation, Ideology, and the D.C. Circuit, 83 VA. L. REV. 1717, 1764 (1997) (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"); Cass R. Sunstein et al., Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation, 90 VA. L. REV. 301, 305–09 (2004) (finding "ideological dampening" and "ideological amplification" in a wide variety of federal cases). But cf. Kent Barnett et al., Administrative Law's Political Dynamics, 71 VAND. L. REV. 1463, 1469–70 (2018) (finding that "whether a panel is ideologically uniform or diverse does not affect whether circuit courts apply the Chevron framework, nor does it affect agency-win rates on judicial review").

^{149.} The one exception was NEPA cases with majority-Democratic panels during the Bush Administration, before which plaintiffs prevailed at modestly higher rates than all-Democratic panels (53 percent versus 47 percent, respectively).

^{150.} For the NEPA appeals during the Bush Administration, plaintiffs prevailed 0 percent of the time before an all-Republican panel versus 48 percent before all-Democratic panels; for ESA appeals, plaintiffs prevailed 20 percent of the time before an all-Republican panel versus 73 percent before all-Democratic panels. The p-values were all below 5 percent with the exception of ESA cases during the Obama Administration.

^{151.} For the NEPA appeals during the Obama Administration, plaintiffs prevailed in 0 percent of the cases before all-Republican panels, about 11 percent before mixed panels, and 50 percent before all-Democratic panels; for ESA appeals, plaintiffs prevailed in 0 percent of the cases before all-Republican panels, 16 percent before mixed panels, and 33 percent before all-Democratic panels.

inverted, with judicial ideology having less influence during Republican administrations.

We conducted multiple regressions using the district and appellate court data.¹⁵² Table 2 below displays the results from four logistic regressions using two variations on parameters for each statute to assess the 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 or ESA claims. Likelihood ratios for plaintiff success rates appear above the z-values,¹⁵³ 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 and ESA claims were predictive of case outcome. Only claims involving petitions to list new species under the ESA were found to be statistically significant—though this result may in part be due to the relatively small subsets of cases that exist for each type of claim.

All four logistic regressions in Table 2 indicate that several factors influenced plaintiffs' success rates at the district court level: the political affiliation of the judge, whether the case was filed in the Ninth Circuit, and whether the plaintiff was a national environmental organization.¹⁵⁴ Plaintiffs were 1.7–1.8 times more likely to succeed in an ESA or NEPA case before a Democratic-appointed judge than a Republican-appointed judge, roughly 1.6–2.5 times more likely to succeed in the Ninth Cir-

Because the dependent variable-whether the plaintiff prevailed on at least 152. one of its 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 variablepresidential administration-in our analysis designates the Bush Administration as "0" and the Obama Administration as "1." 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 percent lower chance of winning an ESA suit during the Obama Administration than during the Bush Administration; conversely, a likelihood ratio of "1.5" implies that a plaintiff has a 50 percent greater chance of prevailing during the Obama Administration.

^{153.} A "z-value" is a complementary measure of statistical significance that indicates the number of standard deviations by which the observed data deviate from the value predicted by the statistical model.

^{154.} The dummy variable designating whether or not a case was published was included as a control variable.

	NEPA Ruling	NEPA Ruling	ESA Ruling	ESA Ruling
Administration	0.374*** (-4.34)	0.362*** (-4.53)	0.786	0.788
Appointing President's Party for Judge	1.809** (2.64)	1.851** (2.76)	(1.20) 1.760^{**} (2.91)	(1.21) 1.776** (2.98)
Ninth Circuit	2.607^{***} (3.51)	2.468^{***} (3.37)	1.728^{*} (2.33)	1.745^{*} (2.38)
National Environmental Organization	2.476** (2.93)	2.539** (3.02)	1.580 (1.78)	1.481* (2.04)
N	462	462	521	521

TABLE 2. Logistic Regression for District Court Case Outcomes.

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

cuit, and 1.6–2.5 times more likely to prevail if they were a national environmental organization. For NEPA cases, plaintiffs were about 2.7 times more likely to prevail during the Bush Administration and twice as likely to prevail if they were a local environmental organization. Other potential factors, such as the identity of the defendant federal agency, were also evaluated but found not to be statistically significant.

These results confirm that the Ninth Circuit, judicial ideology, and class of plaintiff have a statistically significant impact on the outcomes of both ESA and NEPA cases in district court. For NEPA cases, the presidential administration and local environmental organizations were also important predictors. We conducted regressions with interaction terms to test whether the variables operated independently. None of the interaction terms were found to be statistically significant. The statistical significance and independence of the circuit variable implies that inter-circuit differences cannot be reduced to the ideology of judges. Structural features of the circuits are also relevant factors—such as the volume of cases, balance of Republican and Democratic judges in the circuit, and whether systematic differences exist between "Republican" and "Democratic" judges across circuits.

	NEPA	NEPA	ESA	ESA
	Ruling	Ruling	Ruling	Ruling
Other Circuits vs.	2.294^{**}	2.757^{***}	0.751	0.740
Ninth Circuit	(2.43)	(3.25)	(-0.63)	(-0.67)
$Administration^{155}$	0.537**	0.572^{*}	0.462^{*}	0.500^{*}
	(-2.06)	(-1.89)	(-1.85)	(-1.70)
Environmental	2.094**	2.032**	1.905	
Organization	(2.21)	(2.17)	(1.51)	
Circuit Panel of	2.247^{*}		4.157^{*}	4.146**
3-Democrats	(1.86)		(1.94)	(1.97)
N	330	334	158	158

TABLE 3. Logistic Regression for Appeals Outcomes.

Exponentiated coefficients; z statistics in parentheses; * p < 0.10, ** p < 0.05, *** p < 0.01

The regressions for the appellate cases appear in Table 3 above. Again, the dependent variable in each regression is case outcome, with success defined as a plaintiff prevailing on at least one of its NEPA or ESA claims. The statistics in Table 3 mirror those in Table 2 apart from judicial ideology, which focuses on panels for which all three judges were Democratic appointees. We did not include panels with different mixes of judges because all-Democratic panels were the only ones for which the rate at which environmental plaintiffs prevailed differed significantly from the rates for other three-judge panels.¹⁵⁶ The regression co-

^{155.} 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 appeals cases filed between 2002 and 2009, and the Obama Administration as encompassing all cases filed between 2010 and 2015.

^{156.} Please note that the likelihood ratio reported in Table 3 is relative to a panel with two Republican judges and one Democratic judge. This baseline is somewhat arbitrary, given that the likelihood ratio is by definition a relative number, but we chose one of the ideologically mixed panels as the baseline because we expect them to represent a middle ground with respect to the influence of ideology.

efficients for the ESA and NEPA cases in Table 3 are statistically significant for the presidential administration and all-Democratic appellate panels.¹⁵⁷ On average, plaintiffs were about twice as likely to prevail during the Bush Administration, and they were two to four times more likely to prevail in cases before all-Democratic panels as compared to panels with two Republican-appointed judges and one Democratic-appointed judge. For NEPA cases, the Ninth Circuit and environmental plaintiffs were each statistically significant factors. On appeal, NEPA plaintiffs were roughly 2.5 times more likely to win in the Ninth Circuit. Similarly, environmental plaintiffs were about twice as likely to prevail as other classes of plaintiffs.

Case outcomes under both statutes were influenced by the presidential administration, which was associated with a decrease in success rates of about twenty percentage points between the Bush and Obama Administrations. This result could be driven by multiple factors including changes in the cases plaintiffs filed, the judges hearing the cases, or the policies of the presidential administration. Given the Bush Administration's deregulatory bias,¹⁵⁸ the most plausible explanation may be that the Bush Administration's compliance with the statutes was weak and that this caused appellate judges to rule in favor of plaintiffs more often. However, the cases that are appealed depend both on the decision in district court and the selection criteria that plaintiffs use on appeal, which tend to be rigorous, given the small number of cases appealed, and thus tend to se-

^{157.} While the statistical significance is weaker under the ESA, this is likely due to the smaller number of cases. Given that our sample of NEPA cases includes over 340 cases and is almost equally divided between the Bush and Obama Administrations, statistical power is unlikely to be a problem. We conducted a power analysis on the NEPA 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.

^{158.} See, e.g., Jack M. Beermann, Midnight Rules: A Reform Agenda, 2 MICH. J. ENVTL. & ADMIN. L. 285, 329 (2013) ("In general, the GW Bush administration's midnight regulations reflected what one would expect based on the policies of the administration, deregulating in the environmental area and regulating labor unions and abortion providers more strictly."); Daniel A. Farber, Rethinking the Role of Cost-Benefit Analysis, 76 U. CHI. L. REV. 1355, 1363 (2009) ("To the chagrin of public interest groups and the joy of industry-funded think tanks, OIRA greatly stemmed the flow of health, safety and environmental regulation during the Bush Administration." (quoting Thomas O. McGarity, The Story of the Benzene Case: Judicially Imposed Regulatory Reform Through Risk Assessment, in ENVIRONMENTAL LAW STORIES 141, 169 (Richard J. Lazarus & Oliver A. Houck, eds., 2005))).

lect from a narrow range of cases that are unlikely to be representative of government policies or compliance with either statute. Perhaps the most that we can say is that the circuit courts were more likely to overturn lower court rulings that were deferential to agency discretion during the Bush Administration and that this suggests that the Administration deviated more frequently from the mandates of each statute.

The other major factor that was common to both statutes was judicial ideology. Its impacts, however, were statistically significant only for all-Democratic panels. As noted above, the influence of ideology on three-judge panels is mediated by the strong norm of unanimity that exists among circuit judges, and this is particularly important for ideologically mixed panels.¹⁵⁹ Thus, we observed small, statistically insignificant differences in the regression coefficients for ideologically mixed panels.¹⁶⁰ However, the results for ideologically uniform panels were asymmetric: the regression coefficient for all-Republican panels did not differ meaningfully from those of the ideologically mixed panels, whereas the coefficient for all-Democratic panels was higher by a factor of two to four.¹⁶¹ We suspect that this asymmetry is largely driven by the smaller number of all-Republican panels, which is largely a byproduct of so many cases being filed in the Ninth Circuit, and the correspondingly weaker statistical power.

The results for the NEPA cases exhibit two additional statistically significant factors at the appellate level—whether the case was filed in the Ninth Circuit and whether the plaintiff was an environmental organization. The persistence of circuit effects

^{159.} This norm is clearly evident in our sample data: dissents were filed in just 5.5 percent 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").

^{160.} 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 percent and that it is not statistically significant.

^{161.} Statistical power was likely a factor for the NEPA cases given the small number of appeals with all-Republican panels. 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.

at the appellate level in the Ninth Circuit highlights the importance of a circuit having a large volume of cases because the number of cases has a nonlinear impact on the number of ideologically uniform three-judge panels, which is also sensitive to the balance of Republican and Democratic judges.¹⁶² The Ninth Circuit is an outlier on both counts—it heard more than 50 percent of the NEPA appeals and 59 percent of its appellate judges were appointed by Democratic presidents. Accordingly, the elevated success rates of plaintiffs on NEPA appeals was driven in part by the volume of cases and the tilt towards Democratic appellate judges in the Ninth Circuit. The second factor-the equal or higher success rates of environmental plaintiffs on appeal—is important because it underscores the relative merits of their claims. Moreover, it provides further evidence against assertions by critics of citizen suits that environmental plaintiffs file NEPA lawsuits for strategic ends and in spite of dubious legal grounds for their claims.¹⁶³

Our descriptive statistics and regression results suggest three broad conclusions. First, the high concentration of cases in centrist and liberal states implies that citizen suits typically follow local politics rather than operate as a backstop to them. To test this connection further, we ran several additional regressions with a binary dependent variable for whether the suit was filed in the Ninth Circuit. This analysis revealed that state politics was a much stronger predictor of whether a case would be filed in the Ninth Circuit than litigation success rate or any other factor.¹⁶⁴ Second, environmental plaintiffs prevail at higher rates than other plaintiffs filing NEPA and ESA cases and prevail at higher rates than the broad averages for admin-

^{162.} By contrast, the small number of ESA 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.

^{163.} See, e.g., Johnson, supra note 4, at 911 (noting Chamber of Commerce contention that "citizen suits are motivated primarily by the opportunity to collect attorney's fees"); Steven D. Shermer, *The Efficiency of Private Participation in Regulating and Enforcing the Federal Pollution Control Laws: A Model for Citizen Involvement*, 14 J. ENVTL. L. & LITIG. 461, 481 (1999) ("A dominant concern among critics of private participation in pollution enforcement is that citizen-suit provisions open up a potential flood-gate for frivolous lawsuits against industry."); see also Myriam E. Gilles, *Reinventing Structural Reform Litigation: Deputizing Private Citizens in the Enforcement of Civil Rights*, 100 COLUM. L. REV. 1384, 1432 (2000).

^{164.} The coefficient for state politics was a factor of three versus a factor of roughly 2.4 for success rate.

istrative challenges to agency action generally. While success does not preclude strategic ends, it does demonstrate that, for the most part, the cases were grounded in legitimate legal claims more often than the average administrative plaintiff. The significance of this inference is reinforced by the modest number of cases filed (relative to the large numbers of litigable federal actions) under each statute. Third, the differences we observe in plaintiffs' success rates and the variable influence of judicial ideology demonstrate the promise of judicial review-and its contingencies. We find intriguing evidence that liberal judges played a critical role in checking the policies of the Bush Administration and that the distribution of cases geographically, specifically the concentration in the Ninth Circuit, enhanced the judicial checks on the Administration in district court and on appeal. The challenge that these observations present is that the geographic distribution of cases was partly fortuitous,¹⁶⁵ and the balance of conservative and liberal judges in the federal courts is hotly contested. Accordingly, the judicial checks apparent in our findings could be eroded through legislative action¹⁶⁶ or shifts in the balance of sitting federal judges.¹⁶⁷

III. CORRECTING THE EMPIRICAL GAPS IN THE DEBATE OVER CITIZEN SUITS

The opposing sides in the debate over citizen suits portray them in starkly different terms. Among proponents, citizen suits complement and support federal and state agencies by augmenting limited government enforcement budgets and reinforcing programs that are subject to powerful political opposition.¹⁶⁸ By contrast, opponents argue that citizen suits usurp government authority for implementing environmental laws (often for selfserving reasons) and undermine the priority-setting and efficiency of regulatory programs.¹⁶⁹ In their respective arguments

^{165.} Local and judicial politics have historically been at least loosely aligned through the Senate confirmation process.

^{166.} See supra note 20 and accompanying text (discussing legislative proposals to weaken NEPA and the ESA).

^{167.} *Cf.* Maxwell L. Stearns, *Standing at the Crossroads: The Roberts Court in Historical Perspective*, 83 NOTRE DAME L. REV. 875, 922 (2008) (describing "manipulation" of standing rules by the Supreme Court when its ideological balance diverged from that of the courts of appeals).

^{168.} See supra Section I.A.

^{169.} See supra Section I.A.

for and against citizen suits, neither side considers how the practical limits on citizen suits restrict their scope and aggregate impacts, whether those impacts are positive or negative.

In the sections that follow, we synthesize our results and evaluate their implications by focusing on three central factors: the volume of cases filed, the geographic distribution of citizen suits, and the variation and impact of judicial review. Our findings highlight the disconnect between the prevailing commentary on citizen suits and how they operate in practice. We close by examining three different models of citizen suits: (1) discrete actions that are of special importance locally but limited importance outside the specific factual context in which they arise, (2) impact litigation that is of broad importance legally, and (3) a distinct class of citizen suits that operate together as a series of cases in litigation campaigns targeting natural resources or government programs of unique importance. The high-stakes nature of this third category of cases (far more than the number of cases) determines their impact, and the continuity of judicial engagement over time appears to be an important element as well. These broad categories of citizen suits (those challenging discrete actions, either in one-off suits or impact litigation, and serial citizen suits) expose distinct modes of operation-one of which is episodic and driven by a specific set of local interests or legal questions, and the other of which is sustained and regularly re-litigated. We argue that the normative and practical considerations for each differ and should be evaluated independently.

A. Citizen Suits Are Eclipsed by Government Enforcement and Federal Actions

Aggregate statistics alone illustrate the gap that exists between the academic and policy debates over citizen suits and their operation in practice. Whereas the federal actions potentially subject to NEPA and the ESA number in the tens of thousands (including about two hundred EISs under NEPA and several thousand formal consultations under the ESA), judicial opinions issued annually in citizen suits number roughly one hundred (under NEPA) and thirty (under the ESA).¹⁷⁰ Moreover, regulatory streamlining has expanded dramatically

^{170.} See supra Section II.B.

over the last two decades through widespread use of CEs and EAs under NEPA and informal consultations under the ESA.¹⁷¹ From 2008 through 2016, this trend towards abridged procedures is reflected starkly in the 31 percent decline in final EISs issued annually, which appear to have been supplanted by CEs and EAs. This decline minimizes the impact that suits challenging EISs can have, even though a relatively large percentage (about one-quarter) of EISs are contested in court. These trends and the persistently low volume of litigation overall highlight the limited capacity of citizen suits to impact the day-to-day implementation of NEPA and the ESA. Whether citizen suits involve enforcement actions against regulated entities under the major pollution statutes or actions against federal agencies under NEPA or the ESA, they are overshadowed by government enforcement programs and the volume of government actions.

The number of citizen suits with decisions on the merits is not, however, the only metric one could use to assess their influence, particularly given that the impact of cases can vary widely. For example, because of their precedential effect, citizen suits may have a broader influence on federal and state agencies and private actors through application of their holdings in other cases, especially if they resolve broadly applicable legal issues. However, while the "impact litigation" discussed in Section III.D below has the greatest potential to influence agency decisionmaking,¹⁷² it does not fit the conventional narratives on the political left or the right about citizen suits. Impact litigation is brought specifically to resolve broadly applicable legal questions and may take the form of actions to compel agencies to perform nondiscretionary duties, often in the form of rulemaking.¹⁷³

^{171.} See GAO-14-169, supra note 56, at 7, 10 (indicating that the number of EISs issued by all federal agencies fell from 548 in 2008 to 404 in 2012, and that 95 percent of NEPA analyses are categorical exclusions and less than 1 percent are EISs); Trevor Salter, NEPA and Renewable Energy: Realizing the Most Environmental Benefit in the Quickest Time, 34 ENVIRONS ENVTL. L. & POL'Y J. 173, 184 (2011) ("Categorical exclusions have gained renewed currency in the environmental policymaking debate after their increased use by the Bush Administration.").

^{172.} Under the ESA, a prominent example of impact litigation is the citizen suits noted in Section I.B petitioning the FWS or NMFS to make a determination on whether to list a species—or in some cases, multiple species—or to designate critical habitat for listed species. The cases involve nondiscretionary duties and have the potential to trigger protections that cover large territories or entire ecosystems.

^{173.} An example of an influential action-forcing suit is a case in which a district

Such claims are grounded in statutory language that plaintiffs claim the defendant agency is not following or interpreting properly. The purpose is not to compel discretionary agency action or to usurp exercises of agency judgment that are clearly delegated to it, such as the prioritization of certain programs or priorities in light of limited resources.¹⁷⁴

The existing data on citizen suits should put to rest concerns about opening up the floodgates of litigation and overwhelming government enforcement and implementation programs. The frequency of citizen suits under each of the major federal statutes is strikingly low relative to the volume of actions taken under government programs and potential enforcement actions that could be taken annually. As a general rule, the scope of citizen suits and the frequency with which they can be filed drastically limit their capacity to augment or influence government programs systemically.

B. How Politics Guide the Geographic Distribution of Citizen Suits

The highly uneven geographic distribution of citizen suits has the potential to mitigate the persistent shortfall of cases in a few select jurisdictions while exacerbating that shortfall everywhere else. In our studies of litigation under NEPA and the ESA, which are limited largely to suits against federal agencies,¹⁷⁵ we find that citizen suits are exceedingly rare in most

court ordered the EPA to create a program to protect clean air resources, which Congress later codified in the provisions of the 1977 Clean Air Act amendments that created the prevention of significant deterioration program, 42 U.S.C. §§ 7470–7479 (2018). See Glicksman, supra note 36, at 358–61 (discussing Sierra Club v. Ruckelshaus, 344 F. Supp. 253 (D.D.C. 1972), affd per curiam without opinion, 2 Envtl. L. Rep. 20,656 (D.C. Cir. 1972), affd by an equally divided Court sub nom. Fri v. Sierra Club, 412 U.S. 541 (1973)).

^{174.} The FWS has argued, however, that citizen suits seeking to compel the designation of critical habitat are counterproductive because they divert agency resources away from actions more important to species protection. See Allan Julius Ray, Cooling the Core Habitat Provision of the Endangered Species Act Before It Goes Critical: Practical Critical Habitat Reformulation, 34 ENVIRONS: ENVTL. L. & POL'Y J. 99, 106 (2010); cf. Sidney A. Shapiro & Robert L. Glicksman, Congress, the Supreme Court, and the Quiet Revolution in Administrative Law, 1988 DUKE L.J. 819 (assessing the merits and demerits of prescriptive legislation and the imposition of statutory deadlines for agency action).

^{175.} Although suits alleging violations of ESA provisions, such as the taking prohibition by private or public entities, may be filed under the ESA's citizen suit provision, 16 U.S.C. § 1540(g)(1)(A) (2012), only about 4 percent of the opinions in

jurisdictions. Further, where such suits are more common, we observe a strong correlation with local politics and public support for more rigorous compliance with environmental regulations and procedures. While it does not provide conclusive evidence, this pattern is robust and consistent with the government response one would predict when the likelihood of litigation is higher: augmented government compliance with NEPA and ESA procedures, undertaken to ensure that the agency can withstand an administrative challenge in federal court.¹⁷⁶ Thus, in the regions where they are most common, citizen suits influence the decisions and procedures under review and cause systemic changes in the rigor with which agencies adhere to the procedural requirements of the statutes.

The most pronounced pattern that we observe is that citizen suits target agency actions that occur overwhelmingly in politically liberal or moderate states—only about 15 percent of the federal actions occurred exclusively in conservative states.¹⁷⁷ We also found that the politics of the state in which the federal action occurred was a stronger predictor of the circuit in which a case was filed than the success rates of NEPA and ESA cases in the circuit. Local politics prevailed over judicial forum shopping.

These findings negate the conventional narratives about citizen suits on both the political left and right. The gravitation of citizen suits to liberal or moderate states, where support for environmental programs is higher than average, runs counter to liberal claims that citizen suits offset weak enforcement or prompt government action. Instead, the litigation patterns we observe suggest that citizen suits strengthen enforcement where it is already most likely to be robust—these suits reinforce rather than mitigate disparities in the levels of environmental enforcement. Conversely, geographic disparities undermine conservative critics' claims that citizen suits usurp state or federal implementation and enforcement of environmental laws. Instead, they align closely with state politics and thus, in relative terms, are equally or more likely to reflect local values as state or federal policies. Contrary to critics' claims, the geographic

our ESA database involved private entities and just 6 percent involved state or local governments.

^{176.} Enhanced NEPA and ESA procedures—EISs under the former and formal consultations under the latter—closely track the geographic distribution of litigation. *See supra* Figures 1 and 2.

^{177.} See supra Section II.B.

bias towards more liberal states also provides further evidence that environmental organizations are sensitive to state politics and that citizen suits tend to align with the values of local communities rather than to foist unwelcome values shifts through the actions of unaccountable litigants.

The strong bias towards filing citizen suits in liberal jurisdictions is a mixed blessing from a normative perspective. On one hand, it defuses the potential concerns about conflicts between citizen suits and government authority over the implementation and enforcement of environmental laws. The close correlation of citizen suits with liberal state and local politics greatly diminishes the potential for such conflicts to arise. On the other hand, since their creation in the 1970s, one of the principal aspirations for citizen suits was that they would provide a counterbalance to lax implementation and enforcement of environmental laws where political or administrative support is weak.¹⁷⁸ We find little evidence that citizen suits systematically serve this role. Instead, they disproportionately benefit communities in which legal resources are plentiful and environmental awareness is highest.

C. Structural Factors that Influence Judicial Review of Agency Action

In the statistical analyses presented in Section II.B, we found significant differences in plaintiffs' success rates for litigation under NEPA and the ESA across the Bush and Obama Administrations. During the Bush Administration, environmental organizations prevailed in 46 percent of the NEPA cases and 47 percent of the ESA cases in district court, versus 23 (NEPA) and 32 (ESA) percent during the Obama Administration.¹⁷⁹ Relative to administrative challenges generally, the success rates during the Bush Administration are high and those during the Obama Administration are roughly comparable to the average for administrative challenges.¹⁸⁰ Drawing on our regression results, we find that the circuit and political affiliation of the

^{178.} See supra notes 32–38.

^{179.} The corresponding rates at the circuit level were 35 percent and 20 percent under the Bush and Obama Administrations, respectively, for ESA cases versus 36 percent and 16 percent under the Bush and Obama Administrations, respectively, for NEPA cases.

^{180.} See supra note 136 and accompanying text.

judge(s) hearing the case were the strongest outcome predictors in NEPA cases. The presidential administration was also an important factor in district court. For ESA cases, the political affiliation of the judge(s) was consistently the most important factor, but the magnitudes of the associations were often smaller than those for the NEPA cases. In addition, the associations observed in the ESA cases were less consistent. For example, while the circuit was a significant factor in district court decisions, the presidential administration supplanted it on appeal.

The discrepancies in the statistics between the NEPA and ESA cases could have a variety of explanations, particularly with respect to the impact of presidential administration in the district court cases and the impact of being located in the Ninth Circuit on appeal. For example, presidential policies could differ toward the two statutes. The ESA contains a mix of substantive and procedural elements whereas NEPA is purely procedural, a difference which may make the ESA more objectionable to administrations that do not place a priority on environmental protection. On the other hand, the range of issues implicated is much greater under NEPA, which requires evaluation of the impacts of agency action on the "human environment,"181 broadly defined,¹⁸² than it is under the ESA, which hones in on protection of individual species and their critical habitats.¹⁸³ Similarly, the relatively low appeals rate (only about one-quarter of district court cases were appealed) could further alter the nature of the appellate cases between the two statutes. The doctrinal issues are not the same, however, and the political calculus and stakes differ substantially, particularly given the threat perceived by private landowners from ESA protections for listed species. Given these competing explanations, resolving the variation in

^{181. 42} U.S.C. § 4332(2)(C) (2018).

^{182.} See 40 C.F.R. § 1508.14 (2019) ("Human environment shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment.") (emphasis in original); see also id. § 1508.8 (defining "effects" broadly to include direct and indirect impacts).

^{183.} Some have argued that this focus is too narrow to be effective. See, e.g., Jacqueline Lesley Brown, Preserving Species: The Endangered Species Act Versus Ecosystem Management Regime, Ecological and Political Considerations, and Recommendations for Reform, 12 J. ENVTL. L. & LITIG. 151, 177 (1997) ("The ESA's single-species approach is inadequate to protect ecosystems and biodiversity."); J.B. Ruhl, Who Needs Congress? An Agenda for Administrative Reform of the Endangered Species Act, 6 N.Y.U. ENVTL. L.J. 367, 370 (1998) (arguing that Congress should "scrap the ESA entirely and start over by designing a law that protects both ecosystems and economic interests in an effective, balanced manner").

our findings between the two statutes would inevitably be highly speculative.

Our results do provide clear insights into the relative importance of the explanatory variables that we studied, particularly judicial ideology and circuit. We focus here on these ideological and structural features of the federal judiciary. The influence of judicial ideology is relatively straightforward at the district court level because only a single judge hears each case. Empirically, our analysis of this factor was further simplified because, while plaintiffs' success rates dropped overall during the Obama Administration, the difference in the rate at which environmental plaintiffs prevailed before Democratic- and Republican-appointed judges did not change across the two administrations. It remained at about fifteen percentage points and, consistent with this, our regressions showed that environmental plaintiffs were 70 percent more likely to prevail before a Democratic judge. Assuming one hundred cases per year, the difference between an ideologically balanced versus a one-sided cohort of district judges hearing the cases would be five to ten rulings for-or against-federal agencies annually.

The modest influence of judicial ideology in district courts likely has a variety of explanations, but we believe the most likely explanation is the routine nature of the cases relative to those appealed.¹⁸⁴ This may also explain why the difference between Republican and Democratic judges is stable across administrations. The ideological salience of the issues was low for judges and agency officials alike. At the appellate level, the influence of judicial ideology depended on the balance of Democratic- and Republican-appointed judges on each three-judge panel. Consistent with the existing literature, we find that ideologically mixed panels moderated case outcomes. Unlike the prior studies, however, we observe an asymmetry among ideologically uniform panels: all-Republican-appointed panels differed little from ideologically mixed panels, whereas plaintiffs' success rates before all-Democratic-appointed panels departed dramatically from the others, with likelihoods of success two to four times greater. Further, it appears that much of the dispar-

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^{184.} See Christopher Smith, Polarized Circuits: Party Affiliation of Appointing Presidents, Ideology, and Circuit Court Voting in Race and Gender Civil Rights Cases, 22 HASTINGS WOMEN'S L.J. 157, 158 (2011) ("[D]istrict court cases are often routine on matters of law, while circuit court cases are more difficult and more likely to be contested on ideological grounds.").

ity occurred during the Bush Administration, with success rates before all-Democratic-appointed panels largely converging towards those of the other panels during the Obama Administration. Put differently, plaintiffs' impressive success rates on appeal were driven up by Democratic judges and all-Democraticappointed panels in particular. This was particularly true of the ESA cases, for which all-Democratic-appointed panels were especially predisposed towards environmental plaintiffs. It is nevertheless important to recognize that all-Democratic-appointed panels heard a small fraction of the cases, perhaps two or three a year, due to the lower probability of ideologically uniform panels under a process of randomly selecting judges.

The influence of judicial ideology was further mediated by the concentration of cases in the Ninth Circuit. In general, intercircuit differences are driven by three principal factors: (1) the volume of cases, (2) the balance of Republican- and Democraticappointed judges, and (3) systematic differences in the political outlook of judges in a circuit.¹⁸⁵ At the district court level, environmental plaintiffs filed more than half of their cases in the Ninth Circuit and were 2.5 times more likely to prevail there than in other circuits. However, Republican- and Democraticappointed district court judges were evenly balanced in the Ninth Circuit, which implies either that they were more "liberal," on average, than judges in other circuits or that precedent in the Ninth Circuit was more favorable to environmental plaintiffs than it was in other circuits. Alternatively, the higher volume of cases in the Ninth Circuit could make judges less deferential to federal agencies. This explanation seems unlikely, however, given that most judges heard only a few NEPA or ESA cases over the course of the two presidential administrations.

The findings for the appellate cases were more interesting because the large volume of cases in the Ninth Circuit translated to larger absolute numbers of ideologically uniform panels. This phenomenon is much more pronounced in the NEPA cases because four times as many appellate cases are decided annually. Thus, while on average appellate judges in the Ninth Circuit may be more liberal than their counterparts in other circuits, the influence of Democratic-appointed judges and all-Democraticappointed panels was magnified by the high volume of cases and

^{185.} For example, a Republican-appointed judge in the Ninth Circuit was not the same as one in the Fifth Circuit.

the sixty-forty split of Democratic- and Republican-appointed appellate judges in the Ninth Circuit during the period covered by our study. Tellingly, the Ninth Circuit accounted for 83 percent of the all-Democratic panels nationally. Thus, the rate at which environmental plaintiffs prevailed was impacted by the distribution of cases across circuits and the ideological balance of judges who heard them. This result may be unsurprising for anyone concerned about forum shopping, but no one (to our knowledge) has recognized that such panel effects are affected by the distribution of cases across the federal circuits.

We find that two factors—the ideological balance of federal judges and geographic distribution of cases—influence the outcome of judicial review in NEPA and ESA cases. The heavy concentration of citizen suits in the Ninth Circuit benefitted environmental plaintiffs because of the increased number of Democratic-appointed judges hearing the cases (relative to the national average) and, on appeal, the number of all-Democraticappointee panels. One must be careful not to read too much into these results, however. The absolute numbers of cases at the district and appellate levels affected was small-the low to mid-single digits for either statute. In short, the large disparities in success rates noted above are misleading without a grounding in the absolute number of cases annually. With these qualifications regarding the practical significance of these observations, our findings show that Democratic-appointed judges during the Bush Administration had the greatest influence on plaintiffs' success rates in NEPA and ESA cases. The rulings of Republican-appointed judges, particularly at the appellate level, differed little across the two presidential administrations and were much less favorable towards environmental plaintiffs.

The factors that mediated the influence of judicial ideology in NEPA and ESA cases during the period we studied need not persist, however. A large shift in the number of judges appointed by one political party could disrupt this dynamic by drastically reducing the frequency of all-Democratic panels. Conservative scholars, for example, have urged Congress to double or triple the number of both federal appeals court and district court judges with the explicit goal of "undoing the judicial legacy of President Barack Obama."¹⁸⁶ If all or most of the vacancies were

^{186.} Linda Greenhouse, A Conservative Plan to Weaponize the Federal Courts, N.Y. TIMES (Nov. 23, 2017), https://www.nytimes.com/2017/11/23/opinion/ conservatives-weaponize-federal-courts.html [https://perma.cc/8B7A-M5NM];

filled by a sympathetic president and Senate, such a plan could dramatically increase the number of Republican-appointed judges. It is possible that such a transformation would restrain Democratic administrations, either because of statutory overreach or far less deferential standards of review. The more likely outcome, however, is that Republican administrations would be given far more leeway to craft environmental enforcement and implementation policies so that the environmental laws have a minimal impact on businesses and private actors.

D. Alternative Visions for Citizen Suits

The original conception of citizen suits and the subsequent critiques misconceive both how they are used in practice and their potential value. In the aggregate, the numbers are simply too small to provide a consistent backstop. This structural deficiency is compounded by the geographic distribution of litigation, which concentrates citizen suits in jurisdictions where, according to the original rationale for citizen suits, they are least needed. Our findings also reveal the spurious nature of critics' claims that citizen suits are disruptive, meritless, and driven by unaccountable special interests. Actual experience with citizen suits suggests three alternative models that are not dependent on large numbers and do not pose a threat to agency authority to oversee implementation and enforcement of the law. The three principal models of citizen suits are evident in our data and the existing literature: (1) discrete one-time suits directed at actions that are of significant concern to an affected community, (2) impact litigation that is carefully constructed to resolve a legal issue of broad importance, and (3) connected series of citizen suits that challenge high-stakes government action over time. Because the first two categories are well recognized in the literature and uncontroversial,¹⁸⁷ we will focus on the third category and the normative implications of the three models for

Steven G. Calabresi, *Republicans Should Expand the Federal Courts*, NAT'L REV. (Nov. 15, 2017, 6:07 PM), https://www.nationalreview.com/2017/11/gop-tax-bill-should-expand-federal-courts/ [https://perma.cc/VX7D-H5Z6]. Significantly, President Trump as of mid-2019 had come close to appointing more judges to the Ninth Circuit than any other appellate court. Jake Holland, *9th Cir. Close to Having More Trump Judges than Any Other (1)*, BLOOMBERG L. (July 8, 2019, 11:40 AM), https://news.bloomberglaw.com/us-law-week/ninth-circuit-close-to-having-more-trump-judges-than-any-other [https://perma.cc/D2LX-DYN3].

^{187.} See supra notes 2–4 and accompanying text.

citizen suits.

Much of the litigation we observe under NEPA and the ESA falls into the first two models of citizen suits. A majority of the lawsuits involve isolated disputes over proposed development or land management of some kind. The interests are largely local, as reflected in the high proportion of cases filed by local organizations, but they rise to a level sufficient to precipitate a citizen action. These suits are inherently ad hoc and driven by concerns within a community. The motivating factor for such suits is the nature of the proposed action rather than systemic concerns about the implementation or enforcement of a program. At the other end of the spectrum are "impact" suits designed specifically to resolve legal issues of broad significance. Under the ESA, a good example of this kind of citizen suit would be litigation over whether unoccupied territory can be designated as critical habitat for an endangered species.¹⁸⁸ Similarly, some NEPA suits address far-reaching legal issues. Examples include suits that seek to broaden what constitutes segmentation of a project¹⁸⁹ or to require consideration of the downstream climate change impacts of burning fossil fuels authorized by a challenged agency action (such as a decision to lease federally owned coal deposits).¹⁹⁰ While both of these modes of litigation are well recognized, they do not serve the ends of systematically supplementing or prodding agency enforcement and implementation of the law that figure so prominently in the legislative histories of the statutes and subsequent debates in the literature.

Connected series of citizen suits over time are a third, prominent mode of litigation that is largely overlooked.¹⁹¹ One reason for this neglect may be methodological, as all of the studies have

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^{188.} See Weyerhaeuser Co. v. U.S. Fish & Wildlife Serv., 139 S. Ct. 361 (2018) (considering whether the ESA allows inclusion of unoccupied habitat in critical habitat designation).

^{189.} See DANIEL R. MANDELKER ET AL., NEPA LAW AND LITIGATION § 9:14 (2018 ed.) (discussing segmentation cases).

^{190.} See, e.g., Sierra Club v. Fed. Energy Regulatory Comm'n, 867 F.3d 1357 (D.C. Cir. 2017) (holding that EIS should have considered the environmental effects of the downstream greenhouse gas emissions that would result from operation of interstate natural gas pipelines); cf. Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172 (9th Cir. 2008) (finding EA to be deficient because it did not evaluate the incremental impact that vehicle emissions resulting from adoption of fuel efficiency standards would have on climate change in light of other past, present, and reasonably foreseeable actions such as other light truck and passenger automobile efficiency standards).

^{191.} Emily Hammond Meazell, *Deference and Dialogue in Administrative Law*, 111 COLUM. L. REV. 1722 (2011), is a notable exception.

tended to focus on broad aggregate trends that do not consider whether citizen suits are connected in any way. The iconic example of such litigation campaigns dates back to the 1990s and the effort to preserve old-growth forests through litigation over protection of the spotted owl under the ESA.¹⁹² In these campaigns, protection of a keystone species is leveraged to safeguard a surrounding ecosystem and involves multiple cases often spanning a decade or longer. To date, such ESA campaigns have targeted grizzly bears, 193 wolves, 194 Pacific salmon, 195 Canada lynx,¹⁹⁶ bull trout,¹⁹⁷ sea turtles,¹⁹⁸ and whales.¹⁹⁹ Recurrent citizen suits have also emerged around major government programs, such as the threats to marine mammals from the Navy's sonar program for detecting submarines,²⁰⁰ the perennial battles over water diversions in the California Bay-Delta,²⁰¹ the long-standing efforts to confine offshore oil drilling²⁰² or restrict energy infrastructure such as natural gas pipelines,²⁰³ and the decades-long effort to preserve the Florida Everglades.²⁰⁴ This form of litigation involves repeated, or continuing, judicial oversight of government action that implicates multiple interests, operates over large scales (spatial and temporal), and has high economic and environmental stakes. These disputes implicate highly technical and complex issues that require the

^{192.} E.g., Portland Audubon Soc'y v. Babbitt, 998 F.2d 705 (9th Cir. 1993); Seattle Audubon Soc'y v. Espy, 998 F.3d 699 (9th Cir. 1993).

^{193.} E.g., Greater Yellowstone Coal., Inc. v. Servheen, 665 F.3d 1015 (9th Cir. 2011).

^{194.} E.g., Wyo. Farm Bureau Fed'n v. Babbitt, 199 F.3d 1224 (10th Cir. 2000).

^{195.} E.g., Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917 (9th Cir. 2008).

^{196.} *E.g.*, Cottonwood Envtl. Law Ctr. v. U.S. Forest Serv., 789 F.3d 1075 (9th Cir. 2015).

^{197.} E.g., Wild Fish Conservancy v. Salazar, 628 F.3d 513 (9th Cir. 2010).

^{198.} E.g., Hawksbill Sea Turtle v. Fed. Emergency Mgmt. Agency, 11 F. Supp. 2d 529 (D.V.I. 1998).

^{199.} *E.g.*, Native Vill. of Chickaloon v. Nat'l Marine Fisheries Serv., 947 F. Supp. 2d 1031 (D. Alaska 2013); Alaska v. Lubchenco, 825 F. Supp. 2d 209 (D.D.C. 2011); Cook Inlet Beluga Whale v. Daley, 156 F. Supp. 2d 16 (D.D.C. 2001).

^{200.} E.g., Nat. Res. Def. Council v. Evans, 279 F. Supp. 2d 1129 (N.D. Cal. 2003).
201. E.g., San Luis & Delta-Mendota Water Auth. v. Jewell, 747 F.3d 581 (9th Cir. 2014).

^{202.} E.g., N. Slope Borough v. Andrus, 642 F.2d 589 (D.C. Cir. 1980).

^{203.} *E.g.*, Sierra Club v. U.S. Dep't of the Interior, 899 F.3d 260 (4th Cir. 2018); Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 698 F.3d 1101 (9th Cir. 2012).

^{204.} E.g., Miccosukee Tribe of Indians v. United States, 566 F.3d 1257, 1269 (11th Cir. 2009).

balancing of divergent public and private interests over time. As such, they are not reducible to a single case or decision.

The normative justifications for the first two case models are straightforward. For citizen suits challenging agency action, one-off cases fall within the mold of judicial review built into the APA—namely, that plaintiffs with standing to sue can challenge agency action or alleged noncompliance with statutory duties in federal court consistent with the core role that the federal courts play in resolving disputes at the behest of parties with a concrete stake in the outcome.²⁰⁵ The second model, impact litigation, also falls squarely within this tradition insofar as it seeks to resolve prominent legal issues by calling on federal courts to exercise their constitutional responsibility to interpret the meaning or application of statutory provisions.²⁰⁶ While citizen enforcement cases against regulated entities cannot be justified as supplementing chronically-deficient government enforcement programs, they do provide relief where violations lead to harms that disproportionately impact or raise particular concerns within a community. In these types of cases, the concerns of local communities can be elevated above both the aggregate priority setting and the politics of state and federal regulators. In effect, citizen suits alleging noncompliance by regulated entities provide a mechanism for enforcement that can be more responsive to local concerns and that reflects the counter-majoritarian institutional role of the federal courts. In addition, individual cases against regulated entities²⁰⁷ can be leveraged as a form of impact litigation to resolve important legal issues relevant to enforcement of and compliance with environmental laws generally.²⁰⁸

^{205.} See, e.g., Flast v. Cohen, 392 U.S. 83, 95 (1968) (describing "the business of the federal courts" as resolving "questions presented in an adversary context and in a form historically viewed as capable of resolution through the judicial process").

^{206.} See 5 U.S.C. 706(2)(C) (2018) (authorizing federal courts to "decide all relevant questions of law" and set aside actions found to be "in excess of statutory jurisdiction, authority, or limitation").

^{207.} NEPA suits, of course, may only be brought against federal agencies, not private actors.

^{208.} An example is citizen suit cases in which citizen suit plaintiffs under the ESA seek rulings that government agencies can be held liable for a taking for authorizing private actors to engage in acts that result in the deaths of listed species members. *E.g.*, Aransas Project v. Shaw, 775 F.3d 641 (5th Cir. 2014). Similarly, resolution of a suit raising the question of whether a failure to act can result in ESA takings liability may have implications well beyond the bounds of that suit. *E.g.*, Am. Bird Conservancy v. Harvey, 232 F. Supp. 3d 292 (E.D.N.Y. 2017). *See also* Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. 167 (2000) (establishing that the deterrent effect of an order requiring the

A connected series of citizen suits that is part of a litigation campaign typically involves natural resources or government programs that have unique value, exist on a large scale, or both. In short, simply adding up the number of cases does not reflect either the magnitude of the public and private interests at stake or the complexity of balancing the interests implicated. Judicial oversight is of particular importance in these contexts because of the enormous pressure placed on government officials and the potential for political and economic forces to distort procedures and decision-making beyond the bounds of what is legally permissible. Under these circumstances, courts have a particularly important role to play in checking agency discretion and preserving the impartiality of decision-making processes.²⁰⁹ As Professor Emily Hammond has pointed out, serial litigation against federal agencies has the potential "to enhance transparency and deliberation, incorporate changing scientific information, speed resolution when the actors are inattentive to it, and further separation of powers principles."210

Moreover, the structural differences between administrative and adjudicative decision-making processes (and the distinct procedural frameworks that apply to these processes) can level the playing field between stakeholders with widely divergent resources, experience, and expertise. In the context of rulemaking and analogous high-stakes administrative decisions, competing interests are free to provide input and to engage in the decision-making process to the limits of their time and resources. But as Wendy Wagner, Katherine Barnes, and Lisa Peters have shown, powerful interest groups often dominate the rulemaking process from beginning to end²¹¹ due to factors such as resource disparities and differential access to decision-mak-

payment of civil penalties to the federal government can support a private litigant's standing to bring a citizen suit alleging a regulated entity's statutory noncompliance).

^{209.} See E. Donald Elliott, Managerial Judging and the Evolution of Procedure, 53 U. CHI. L. REV. 306 (1986); Judith Resnik, Managerial Judges, 96 HARV. L. REV. 374 (1982); see also Meazell, supra note 191 (considering the respective roles of courts and agencies in the context of "serial litigation").

^{210.} Meazell, *supra* note 191, at 1784. Professor Meazell (Hammond) adds, however, that as currently conducted, serial litigation "takes too long, undermines statutory objectives, and mimics minimum rationality review." *Id.* at 1784–85.

^{211.} Indeed, interest group pressure has a role in determining whether agencies will revise or repeal existing rules. *See* Wendy Wagner et al., *Dynamic Rulemaking*, 92 N.Y.U. L. REV. 183 (2017).

ers.²¹² By contrast, the adjudicative procedures of judicial review strictly prescribe the level of and forms in which the parties to the suit participate and interact. On the one hand, formal adjudication entitles parties to "extensive participation rights, including many of the trappings of adversarial judicial process."213 On the other, the limited participatory rights afforded those who are not named parties limits the degree to which interest groups are able to influence adjudicatory decision-making.²¹⁴ Courts therefore offer both an independent review of agency decisionmaking, through the unique constitutional status of judges, and a forum with procedures specifically designed to equalize the participation and influence of the parties. While resources and expertise can still be limiting factors in judicial settings, the procedures that shape adjudication mitigate such disparities between the parties and maximize the transparency of proceedings through, among other mechanisms, strict limits on ex parte communications²¹⁵ and the forms in which arguments are made.²¹⁶

CONCLUSIONS

Opponents and proponents of citizen suits under the federal

215. See 5 U.S.C. §§ 554(d), 557(d) (2018); Portland Audubon Soc'y v. Endangered Species Comm., 984 F.2d 1534 (9th Cir. 1993) (remanding the Committee's decision to exempt timber sales from the ESA's no jeopardy provision due to improper ex parte communications).

216. For extended discussion of the relative advantages and disadvantages of rulemaking and adjudication from the agency's perspective, see Robert L. Glicksman & David L. Markell, *Unraveling the Administrative State: Mechanism Choice, Key Actors, and Regulatory Tools*, 36 VA. ENVTL. L.J. 318 (2018).

^{212.} Wendy Wagner, Katherine Barnes & Lisa Peters, *Rulemaking in the Shade:* An Empirical Study of EPA's Air Toxic Emission Standards, 63 ADMIN. L. REV. 99 (2011).

^{213.} M. Elizabeth Magill, Agency Choice of Policymaking Form, 71 U. CHI. L. REV. 1383, 1391 (2004).

^{214.} See, e.g., Gary Minda, Interest Groups, Political Freedom, and Antitrust: A Modern Reassessment of the Noerr-Pennington Doctrine, 41 HASTINGS L.J. 905, 970 (1990) ("[D]ecisionmakers in the judicial spheres of government attempt to insulate themselves from such pressures, making legislative-type lobbying less likely as a strategy of influence."). See also Stuart Minor Benjamin & Arti K. Rai, Who's Afraid of the APA? What the Patent System Can Learn from Administrative Law, 95 GEO. L.J. 269, 313 (2007) ("[P]rocedure can sometimes provide a defense against capture and promote normative values of deliberation and accountability. For example, the trial-type context of formal adjudications, with the parties presenting evidence and rebutting their opponents' evidence and with the hearing officer's decision based solely on the material presented at the hearing, alleviates the fear of powerful interests presenting arguments privately to the decisionmaker and more generally reduces concerns about bias affecting the agency's decision.").

environmental statutes have long debated the propriety of authorizing private litigants to resort to the courts to challenge agency decisions that allegedly deviate from statutory directives or exceed delegated discretion. This debate, however, has proceeded on a foundation of erroneous assumptions. Critics' assertions that citizen suits disrupt the effective functioning of government are unpersuasive. Supporters' claims that citizen suits have a significant impact on assuring compliance by agencies with the rule of law likewise do not ring true. Drawing on data from fifteen years of litigation under two prominent environmental statutes, we find that the small number of citizen suits relative to the universe of government actions precludes such suits from conforming to either of those depictions.

The role of citizen suits is more nuanced than either of these narratives. Our findings do not undercut the value of or the continuing need for citizen suits, but these findings expose their limitations. In addition, the findings reveal for the first time that citizen suits mirror local values—they are overwhelmingly filed in jurisdictions where concerns about the environment are the highest and are rarely filed where public concern is lowest. Because of that distribution of cases, citizen suits do not, as some of its proponents have envisioned, fill a gap in strong implementation of environmental laws where local politics cuts in the other direction.

Rather than assessing the role of citizen suits as an undifferentiated whole, we suggest that it is essential to evaluate three alternative models of such suits: discrete, localized action; impact litigation that raises important and broadly applicable legal questions (analogous to the test cases brought by strategic litigants on constitutional law and other questions); and continuous lines of litigation over high-profile resources that can span decades. None of the three models infringe on executive branch authority over laws that Congress has empowered agencies to implement, and none serve as a systematic backstop in response to inert or ideologically adverse administrations.

Our findings demonstrate that citizen suits need not be subject to vigorous gatekeeping (the risk that a flood of litigation will arise has no empirical basis) by either federal agencies²¹⁷ or by federal judges applying prudential or constitutional standing

^{217.} Engstrom considers the value of such a gate keeping role. Engstrom, supra note 4.

doctrines.²¹⁸ On the other hand, despite their small numbers, we find that citizen suits still provide important constraints on agency discretion when presidential administrations have an ideological outlook that conflicts with the statutory mandates of federal environmental laws.

APPENDIX: EMPIRICAL METHODS AND PROTOCOLS

From an empirical standpoint, data collection on NEPA and ESA cases is facilitated by their procedural simplicity. NEPA and ESA cases follow a foreshortened series of steps: transmittal of the administrative record to the court, followed by 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 and ESA cases are resolved on motions for summary judgment. Further, because administrative challenges are based largely, and typically exclusively, on administrative records, district court proceedings are not burdened by drawnout 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 in order to determine whether to affirm or reverse the agency (in whole or part) and, where a defect is found, whether to grant injunctive relief or remand the case to the federal agency for further consideration.

NEPA Litigation Study Design and Methods

We adopted a two-part strategy for determining how we would code the cases.²¹⁹ First, we coded a sample of about two

^{218.} Prudential standing rules are nonconstitutional constraints on standing such as the zone of interest test derived from § 702 of the APA, 5 U.S.C. § 702 (2018). The Supreme Court has explained that "a person suing under the APA must satisfy not only Article III's standing requirements, but an additional test: The interest he asserts must be 'arguably within the zone of interests to be protected or regulated by the statute' that he says was violated." Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians v. Patchak, 567 U.S. 209, 224 (2012) (quoting Ass'n of Data Processing Serv. Orgs., Inc. v. Camp, 397 U.S. 150, 153 (1970)).

^{219.} Our data collection followed the principles of study design in the ICPSR 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. & POLY 83, 83-84

hundred district court cases at a high level of granularity (data on roughly sixty claims and sub-claims 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 opinions,²²⁰ drawn from Westlaw, that referred to NEPA from 2001 through 2015.²²¹ This coding evaluated the frequency of specialized legal terms used in NEPA claims and thus provided a complementary measure of the rates at which specific NEPA claims were raised. 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 462 district court cases and 334 circuit court cases.

The collection of the data for the ESA cases was simplified because the total number of cases was much lower and because we were not seeking to collect data on the specific claims raised in each case. Accordingly, we decided simply to code the basic background, party, and outcome data on every case in the Westlaw database. Similar to the NEPA cases, we conducted broad searches to ensure that we captured all of the ESA cases and then, as we coded the cases, we determined in each case whether substantive ESA claims were litigated. We began with 1,952 district court cases and 565 appellate cases; of these cases, ultimately 521 district court and 158 appellate cases involved ESA claims and were coded.

The sample data included information on the court and judge, the parties to the litigation, the nature of the federal action, jurisdictional challenges, substantive challenges under NEPA and the ESA, and the timing of a case. The list below pro-

^{(2009).}

^{220.} 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.

^{221.} 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.

vides a general description of the range of data collected:

- court, judge, and presidential administration (and party) that appointed the judge
- identity of parties to the litigation and classes of litigants (e.g., environmental organization, individual, government, business)
- dates of court filings, motions, and opinions; 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 and ESA 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;²²² (2) the Westlaw database of published and unpublished federal court opinions;²²³ and (3) the Attributes of U.S. Federal Judges Database compiled under the Judicial Research Initiative at the University of South Carolina.²²⁴

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

^{222.} PACER, https://www.pacer.gov/ (last visited Nov. 23, 2019).

^{223.} THOMAS REUTERS, https://westlaw.com/ (last visited Nov. 23, 2019) (All Federal Cases database).

^{224.} The Judicial Research Initiative (JuRI): Attributes of Federal Judges Database, U.S.C., http://artsandsciences.sc.edu/poli/juri/attributes.htm (Last visited Nov. 23, 2019). We also obtained information from Federal Judicial History, FED. JUD. CTR., http://www.fjc.gov/history/home.nsf/page/judges.html (last visited Nov. 23, 2019).

in systematic ways.²²⁵ 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.²²⁶ The low rates at which judges actually rule on cases filed in district courts exacerbate these selection biases. For example, in 2006 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.²²⁷ 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 solely published opinions, can generate unrepresentative results.

^{225.} See Michael Hannon, A Closer Look at Unpublished Opinions in the United States Court of Appeals, 3 J. APP. PRAC. & PROCESS 199 (2001); Denise M. Keele et al., An Analysis of Ideological Effects in Published Versus Unpublished Judicial Opinions, 6 J. EMPIRICAL LEGAL STUD. 213 (2009); Evan Ringquist & Craig E. Emmert, Judicial Policymaking in Published and Unpublished Decisions: The Case of Environmental Civil Litigation, 52 POL. RES. Q. 7 (1999); Peter Siegelman & John Donohue, Studying the Iceberg from Its Tip: A Comparison of Published and Unpublished Employment Discrimination Cases, 24 LAW & SOC. REV. 1133 (1990); Stephen Wasby, Unpublished Decisions in the Federal Courts of Appeals: Making the Decision to Publish, 3 J. APP. PRAC. & PROCESS 325 (2001).

^{226.} Keele et al., supra note 225, at 213–14.

^{227.} David A. Hoffman et al., *Docketology*, *District Courts*, and *Doctrine*, 85 WASH. U. L. REV. 681, 682–83 (2007).