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ARTICLE

TESTING THE OSSIFICATION THESIS:
AN EMPIRICAL EXAMINATION OF FEDERAL REGULATORY VOLUME AND SPEED, 1950-1990

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We present one of the first empirical assessments of the prominent ossification thesis in administrative law scholarship. Scholars argue that the federal courts’ embrace of the “hard look” doctrine of judicial review in the 1970s, along with the imposition of procedural constraints on agency autonomy by the White House and Congress in the 1980s, have severely limited the ability of federal agencies to regulate in the public interest. This conventional wisdom has remained largely untested. To test it, we constructed an original database of the universe of notice-and-comment rules proposed and promulgated by the U.S. Department of the Interior (DOI) from 1950-1990. We examine whether DOI agencies promulgated fewer rules in the supposedly ossified era of 1976-1990 than they did in earlier years; whether there is evidence of a movement away from notice-and-comment rules toward ostensibly illegal regulation via more informal policy devices; and whether notice-and-comment regulations took significantly longer to complete in the allegedly ossified era. We find mixed and relatively weak evidence of ossification. The federal agencies in our study remain able to promulgate large volumes of regulations, and do not appear to be

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systematically substituting informal policy devices for notice-and-comment regulations. Additionally, while rules do take somewhat longer to complete in the ossified era than before, the majority of supposedly ossified regulations are promulgated within one year of proposal and the vast majority are promulgated within two years. We conclude that attempts made by the courts, White House, and Congress to restrict bureaucratic autonomy in favor of increased accountability have probably not unduly harmed rulemaking in the aggregate. Would-be reformers of the federal administrative process may wish to think twice before radically altering the current system in ways that decrease opportunities for oversight.

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INTRODUCTION
Federal agencies function as a veritable fourth branch of our national government.\(^1\) Tasked with “filling up the details” and “gaps” in legislation, agencies routinely propose and promulgate regulations (or, synonymously, “rules”) that are as legally binding on regulated persons and entities as are the laws passed by Congress and signed by the President.\(^2\) Each year federal agencies promulgate hundreds of regulations, the subjects and effects of which are often far from trivial. For example, federal rules—decisions by unelected bureaucrats, and not by elected members of Congress—govern the use of the word “organic” in the marketing of agricultural products,\(^3\) set minimum fuel economy standards for motor vehicles,\(^4\) determine whether particular species of plants and animals shall enjoy the protections of the Endangered Species Act,\(^5\) and will largely guide the shape of the new financial services regulations to be implemented in the wake of the current economic crisis.\(^6\) Even regulatory decisions

\(^1\) On federal agencies as the “fourth branch” in our formally three-branch system of federal government, see Peter L. Strauss, The Place of Agencies in Government: Separation of Powers and the Fourth Branch, 84 Colum. L. Rev. 573 (1984).

\(^2\) See, e.g., United States v. Grimaud, 220 U.S. 506, 517 (1911) (“From the beginning of the government, various acts have been passed conferring upon executive officers power to make rules and regulations, not for the government of their departments, but for administering the laws which did govern. None of these statutes could confer legislative power. But when Congress had legislated and indicated its will, it could give to those who were to act under such general provisions ‘power to fill up the details’ by the establishment of administrative rules and regulations, the violation of which could be punished by fine or imprisonment fixed by Congress, or by penalties fixed by Congress, or measured by the injury done.”); Morton v. Ruiz, 415 U.S. 199, 231 (1974) (“The power of an administrative agency to administer a congressionally created and funded program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress”); United States v. Mead, 533 U.S. 218, 227 (2001) (When Congress has “explicitly left a gap for an agency to fill, there is an express delegation of authority to the agency to elucidate a specific provision of the statute by regulation, and any ensuing regulation is binding in the courts unless procedurally defective, arbitrary or capricious in substance, or manifestly contrary to the statute.”). Chief Justice Marshall appears to be the first member of the federal judiciary to describe the role of federal agencies as entailing the “filling up” of “details” missing from statutes. Wayman v. Southard, 23 U.S. 1, 43 (1825).

\(^3\) 7 C.F.R. § 205.102.

\(^4\) 40 C.F.R. pt. 600.


\(^6\) Sewell Chan, Regulators to Write New Financial Rules in the Open, N.Y.
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that might appear to the casual observer to be, on their face, rather trivial—say, the decision of the Federal Highway Administration to “recommend, rather than merely allow, a fluorescent yellow-green background for warning signs regarding conditions associated with pedestrians, bicyclists, and playgrounds”—can have a surprisingly high level of salience for impacted parties.7

Simply put, bureaucratic rules are all around us, and they often matter greatly to the structure and quality of our lives—perhaps even more so, or at least more directly, than the statutes that grant agencies the power to regulate in the first place.8 Indeed, estimates suggest that more than 90 percent of modern American laws are rules written by agency officials.9 As Kerwin says, “it is rules, not statutes, that tell us how to order our affairs.”10 Given this reality, the rulemaking process has come to be the primary focal point of administrative law scholarship.11

Most substantively important federal agency rulemaking is subject to the notice-and-comment procedures of Section 553 of the Administrative Procedure Act (APA).12 Under Section 553, agencies

7 “The truth, even thought it might gravely shock those who wrote the Constitution, is that more than 90 percent of modern American laws are rules (public policies) promulgated by agency administrators.” KENNETH W. WARREN, ADMINISTRATIVE LAW IN THE POLITICAL SYSTEM 282 (2004)

8 Cf. Richard J. Pierce, Jr., The Role of Constitutional and Political Theory in Administrative Law, TEX. L. REV. 469, 481 (1985) (arguing that “administrative agencies today have enormous power to make fundamental policy decisions that the Constitution assigns to Congress as the branch of government most representative of the majority’s views”). The observation that administrative decisions are more numerous and perhaps even more important than legislative commands is an old one. JAMES M. LANDIS, THE ADMINISTRATIVE PROCESS 17-19 (1938).


11 WARREN, supra note 9, at 245 (“If the field of administrative law has a primary focal point, it would have to be rulemaking.”).

12 Administrative Procedure Act of 1946, Pub. L. No. 79-404, 60 Stat. 237 (codified as amended at 5 U.S.C. §§ 551-83, 701-06, 801-08, 3105, 3344, 6362, 7562 (2000)). The APA has two broad classes of exemptions from Section 553 requirements: regulations dealing with the military or foreign affairs and those
must provide the public with notice of a proposed rulemaking (published in the Federal Register) and solicit public input (often in the form of written public comments) on the proposal prior to promulgation as a legally binding final rule.

In recent years it has become popular to complain that rulemaking via Section 553’s notice and comment procedures has become “ossified.” This ossification thesis has attracted, and continues to attract, a large amount of attention in the administrative law literature. The seminal exposition is Thomas O. McGarity’s 1992 article, Some Thoughts on “Deossifying” the Rulemaking Process, which has been cited by more than 350 law review and other secondary legal sources. Prominent administrative law scholars, including Professors Seidenfeld, Pierce, Verkuil, and Jordan, have made important contributions to the ossification literature as well. Belief in the reality of ossification has inspired ambitious calls for regulatory reform, though that reality is increasingly being called into question by both new and established scholars.
What is the ossification thesis? In brief summary, we can view it as starting from the observation that the federal courts, Congress, and the Executive Branch have competed in a potentially zero-sum “oversight game,” in which each of the three branches has sought to impose its own conception of good regulation (or of good regulatory process) on the federal bureaucracy, stifling the ability of bureaucrats to regulate on the basis of technocratic expertise.21 Agencies were previously able to regulate in the public interest relatively efficiently, even while often allowing the broader public some meaningful opportunity to participate in the regulatory process. By the mid-1970s and 1980s, however, these various judicially, congressionally, and presidentially imposed constraints allegedly prevented agencies from promulgating necessary or desirable regulations, or excessively delayed promulgation, or encouraged agencies to engage in surreptitious (and probably illegal) informal regulation via devices such as press releases, opinion letters, and guidance documents that fail to supply the public with proper notice or adequate opportunity to provide input. In short, various procedural and other sorts of constraints on bureaucratic autonomy have proved to be “costly, rigid, and cumbersome” and “created perverse incentives that conspire to undermine public policy.”22 This undesirable (ossified) state of regulatory affairs continues on to the present day.

The ossification literature points in particular to the judicial development of the “hard look” doctrine of review of agency action which emerged from the D.C. Circuit in the mid-1970s, to the White House’s requirement that agencies engage in cost-benefit analysis and submit their proposals and rules to the Office of Management and Budget (OMB) for pre-clearance, and to Congress’s increasing tendency to require, by statute, that agencies undertake additional analysis before promulgating rules, such as analysis of the ways in which a proposed rule might affect small businesses. The ossification literature claims or implies that the accretion of these and other constraints on bureaucratic autonomy has had four main effects: (1) agencies are prevented or discouraged from promulgating necessary and desirable notice-and-comment regulations; (2) the promulgation of notice-and-comment rules is undesirably delayed; (3) agencies are increasingly likely to abandon their proposed rules prior to promulgation because ossification leads to an increase in unforeseen objec-

21 Sidney A. Shapiro, Political Oversight and the Deterioration of Regulatory Policy, 46 ADMIN. L. REV. 1 (1994) (discussing the “oversight game”).
22 Jody Freeman, Collaborative Governance in the Administrative State, 45 UCLA L. REV. 1, 9 n.19 (1997).
tions and fears of lawsuits; (4) the difficulties and delays associated with notice-and-comment rulemaking have encouraged agencies to engage in policymaking via surreptitious (and possibly illegal) informal regulation.

Belief in the existence of ossification is widespread.\textsuperscript{23} Unfortunately, those beliefs have been subjected to only limited empirical testing.\textsuperscript{24} We say “unfortunately” because the belief that ossification is a fact of modern regulatory life has led some observers to promote potentially far-reaching changes in the legal and administrative frameworks in which agencies operate, such as, for example, the elimination of judicial review of rulemaking.\textsuperscript{25} While such reforms may have the intended effect of making it easier for federal agencies to regulate as they see fit, they may also have the deleterious consequence of making it more difficult for the elected and judicial branches of the federal government, and for the public at large, to monitor, influence, and check undesirable agency action.

In short, the question of whether ossification is in fact a reality of modern federal administrative practice is an exceedingly important one. The ossification literature routinely paints a picture of a fundamentally broken regulatory system, and prominent scholars use that picture to advocate relatively radical, systemic reforms. On the other hand, many of the aspects of the current system that allegedly cause ossification may also have the potential to provide certain important regulatory benefits.\textsuperscript{26} What were are concerned with in

\textsuperscript{23} Indeed, the notion of ossification plays a prominent role in modern administrative law textbooks and treatises. See, e.g., I Richard J. Pierce, Jr., Administrative Law Treatise 511-14 (2002); Stephen G. Breyer et al., Administrative Law and Regulatory Policy: Problems, Text, and Cases 730-37 (2002).


\textsuperscript{25} See infra Part I.E.

\textsuperscript{26} On the potential benefits of strong oversight of agency rulemaking, see e.g. Christopher C. DeMuth & Douglas H. Ginsburg, White House Review of Agency Rulemaking, 99 Harv. L. Rev. 1075, 1080-81 (1986) (discussing the potential benefits of centralized review of rulemaking); Michael Herz, Imposing Uni-
this Article is subjecting to careful empirical analysis the implication of much of the ossification literature that such constraints have, as a matter of fact, proven to impose costs that are so high as to likely outweigh those benefits.

Our approach in this Article is largely descriptive (or positive) rather than primarily normative in nature, and we take no position on such important questions as whether judicial review of rule-making or other procedural requirements that constrain bureaucratic autonomy and discretion are, on net, good or bad, desirable or undesirable. Our empirical strategy, described below, is relatively simple, though its implementation proved difficult and time-consuming because of the need to collect a large amount of original data.

We proceeded from the observation that the ossification literature argues that in the mid to late 1970s federal rulemaking became ossified. One fair implication of the italicized word is that prior to the jurisprudential, presidential, and legislative developments associated with ossification, rulemaking was something other than ossified. Our research design uses these two time periods—pre-mid-1970s and post-mid-1970s—to its advantage. We compiled a large,

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27 It is unclear what the opposite state of “ossified” might best be called (other than “non-ossified,” a term that, we admit, lacks the original’s evocative appeal).
original dataset of the universe of all notice-and-comment rules proposed and promulgated by the various agencies of the United States Department of the Interior (DOI) from 1950 through 1990, as published in various issues of the Federal Register. We also collected information regarding the Department’s use of other, more informal policy devices. We used our data to compare essential, ossification-related attributes of the regulatory system in the non-ossified period, which we operationalize as including the years 1950-1975, with the allegedly ossified regulatory regime in existence from 1976-1990. We chose to end our study in 1990 because that year corresponds with the appearance of the ossification literature. The phenomenon of ossification was first explicitly articulated as such in a 1990 conference at Duke Law School, and McGarity’s influential article on the subject was published in 1992. In that article, McGarity observed that ossification had been a reality of the federal regulatory environment since the second half of the 1970s.

Our data, and the comparative-statics approach that we use to analyze it, has the advantages of being both methodologically accessible and allowing us to relatively directly assess the accuracy of three key empirical implications derived from the ossification literature: (1) that federal agencies will tend to regulate less in the ossified era than they did in the past (i.e. the non-ossified era); (2) that when they do regulate, it will take significantly longer to move a rule from proposal to promulgation in the ossified era; (3) and that agency officials will increasingly substitute informal policy devices for notice-and-comment regulations as we move into the ossified era. If we see federal agencies issuing fewer rules in the late 1970s and 1980s than they did in the past, taking an unreasonable amount of time to issue

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28 Future research may benefit from extending our data collection or analysis to include the 1990s or 2000s. However, in an earlier article, we used different data to analyze delay in rulemaking from the 1980s to 2006. Yackee & Yackee, supra note 24. We found no strong evidence of ossification in that later sample of rules (which included rules from across the federal bureaucracy, and not just from Interior). Based on this previous work, we expect that the conclusions we reach in this article would continue to hold for years more proximate to the present.

29 McGarity, supra note 13.

30 Our use of 1975/1976 as the dividing line between pre-ossified and (allegedly) ossified eras also corresponds to Mashaw and Harfst’s analysis of ossification-like trends in auto-safety regulation, which dates important shifts in the National Highway and Transportation Safety Administration’s regulatory practice to the “mid-1970s”. Mashaw & David L. Harfst, The Struggle for Auto Safety 10 (1990)
rules in the ossified era, or substituting policy statements or the like for notice-and-comment rulemaking, then we might justifiably say that we have found some empirical evidence of ossification as a generalized characteristic of the modern federal regulatory system.

For the purposes of assessing the ossification thesis, and, more generally, for the purposes of shedding light on the historical development of the modern regulatory state, our dataset offers significant improvements over existing research. While administrative law scholars have recently begun to offer important large-observation statistical portraits of federal rulemaking activity, those studies typically rely on data housed by the federal government’s Regulatory Information Service Center (RISC). However, the RISC data goes back only to 1983, well after the ossification era is said to have started. Our study is, to our knowledge, the first to collect and analyze basic information on the rulemaking activities of the federal bureaucracy dating back to the very earliest days of the APA. Furthermore, while other scholars have presented empirical descriptions of the growth of federal regulatory activity over time, our study proceeds by identifying actual proposed and promulgated rules as the unit of analysis, rather than using other, far less perfect proxies of regulatory volume, such as the number of pages contained in the Federal Register or the Code of Federal Regulations.

To briefly summarize our results and conclusions: we find mixed and relatively weak evidence that ossification is either a serious or widespread problem. The volume of notice-and-comment rulemaking appears to rise between 1950 and 1990 in the majority of Interior agencies (and for the Department as a whole). We find no evidence that regulatory success rates—by which we mean the percent of proposed rules that are ultimately finalized—decrease in the late 1970s and 1980s. We do, however, find evidence that rules take longer to develop in the ossified period than in the past. Between 1950-1975, a typical proposed rule might be expected to reach promulgation in just four months. Yet, between 1976-1990, the average rule in the dataset might take a year to be finalized, though virtually

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all rules are promulgated within two years. We suggest that in absolute terms this extra time to completion does not seem tremendously worrisome. Finally, we find little evidence that agencies have turned to other, more informal policy devices as substitutes for notice-and-comment rulemaking.

Before presenting a roadmap to the rest of the Article, we would like to offer a few words of caution. Our study does not suggest that specific bureaucratic initiatives are never unduly delayed, or that socially worthwhile regulations are always promulgated. In certain well-known cases, procedural and other constraints on bureaucratic autonomy seem to have delayed rule promulgation for long periods of time, or prevented agencies from promulgating rules despite years of considered study and effort. The Occupational Safety and Hazard Administration’s long and ultimately unsuccessful struggle to implement workplace ergonomics standards is an obvious potential example, as may be the Environmental Protection Agency’s implementation of the original Clean Air Act or the National Highway Transportation and Safety Administration’s regulation of motor vehicle safety. But scholars who draw on these examples to make general claims about the ossified state of everyday federal administrative practice risk committing a sort of reverse ecological fallacy, whereby the experiences of specific rulemakings are imputed to rulemaking as a whole. Our study does not deny that ossification may be a useful way of describing certain individual regulatory actions. But it also suggests that ossification may not be a terribly useful or accurate way of describing the state of modern rulemaking more generally. The experience of the average rule may be very different from the experience of the highly atypical rule.

The Article proceeds as follows. Part One provides a more detailed overview of the ossification thesis. Part Two summarizes critiques and tests of the ossification thesis. Part Three describes our data collection and research design. Parts Four through Seven present our data analysis. We provide four distinct tests of the ossifica-

35 MASHAW & HARFST, supra note 30.
36 The ecological fallacy refers to the imputation of group characteristics to individuals. The classic discussion of the fallacy is W. S. Robinson, Ecological Correlations and the Behavior of Individuals, 15 AM. SOC. REV. 351 (1950).
testing the ossification thesis. First, we analyze the volume of proposed rules and final rule activity. Second, we study regulatory success rates. Third, we examine delay in rule promulgation; finally, we examine the use of alternatives to notice-and-comment regulation. Part Eight provides a brief discussion of implications, and Part Nine concludes with a candid discussion of our study’s weaknesses and with suggestions for future research.

I. Overview of the Ossification Thesis

The classic statement of the ossification thesis is Professor McGarity’s deservedly influential 1992 article, Some Thoughts on ‘De-ossifying’ the Rulemaking Process. McGarity argues that “[d]uring the last fifteen years the rulemaking process has become increasingly rigid and burdensome. An assortment of analytical requirements has

37 McGarity, supra note 13. While McGarity is sometimes credited with inventing the term “ossification,” in fact McGarity himself credits Donald Elliott, a former general counsel of the Environmental Protection Agency and a former Yale Law professor. Id. at 1385-86. We recently contacted Elliott, who is currently a regulatory lawyer in Washington, D.C., to ask his thoughts about the attribution. Mr. Elliot confirmed that he had indeed used the word in his oral remarks at a 1990 symposium at the Duke University School of Law. He credited his semantic inspiration to the fact that his then-wife was at the time enrolled in medical school, which, Elliot thought, was probably why he chose to describe the phenomenon of delay in rulemaking with a medical metaphor. Elliott also mentioned as relevant to his thinking on the subject his experiences working on the famous Vermont Yankee case as a law clerk for Judge Bazelon, and, later, his experience at EPA implementing the 1990 amendments to the Clean Air Act (CAA). He recounts his CAA experience in a recent article, E. Donald Elliott, Lessons from Implementing the 1990 CAA Amendments, 40 ENVTL. L. REP. 10590 (2010).

For a precursor to McGarity’s notion of ossification, see Philip J. Harter, Negotiating Regulations: A Cure for Malaise, 71 GEO. L.J. 1 (1982). Harter argues that the courts and Congress have imposed various procedural constraints on agencies that have turned the informal rulemaking process into a “hybrid” and “adversarial” system that is characterized by “malaise”: excessive cost, delay, and declining legitimacy. Id. at 5-6. Thirty years earlier, Justice Jackson had also complained of “malaise in the administrative scheme,” though he meant, among other problems, the failure of agencies to provide sufficiently detailed findings to permit judicial review, or, more generally, the failure to “perform the function of completing unfinished law” by “translating an abstract statute into a concrete…order.” FTC v. Rubberoid Co., 343 U.S. 470, 487, 490 (1952) (dissenting).
been imposed on the simple rulemaking model, and evolving judicial doctrines have obliged agencies to take greater pains to ensure that the technical bases for rules are capable of withstanding greater scrutiny.” These analytical requirements and doctrinal developments are responsible for the ills summarized in the previous Part: failure to regulate, delays in regulation, abandonment of proposed regulations prior to promulgation, and resort to improper modes of regulation.

McGarity’s main focus is on the so-called “informal” (or “notice-and-comment” or “legislative”) rulemaking process under Section 553 of the Administrative Procedure Act of 1946. Subsequent ossification scholarship shares this focus, in part because formal rulemaking (retroactive, case-by-case rulemaking by adjudication, the main APA alternative to notice-and-comment rulemaking) has become increasingly rare. Notice-and-comment procedures are often said to provide important benefits compared to other methods of bureaucratic governance. For instance, notice-and-comment may improve the effectiveness of regulation by ensuring that the rule-writing agency is exposed to all relevant information about the likely causes and consequences of a particular regulatory proposal, promoting, perhaps, substantively better regulation. Notice-and-comment may also improve the legitimacy of regulations by ensuring that those impacted by a proposed regulation are given a chance to have their say. Notice-and-comment, by facilitating the creation of a record of

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38 McGarity, supra note 13, at 1385.
39 With relatively few explicit exceptions, the APA requires agencies to issue regulations through either of two main procedures: trial-like “adjudications,” often referred to as “formal” rulemaking, or Section 553’s informal notice-and-comment procedures. As noted in the text, formal rulemaking is relatively rare. Paul A. Dame, Stare Decisis, Chevron, and Skidmore: Do Administrative Agencies Have the Power to Overrule Courts?, 44 WM. & MARY L. REV. 405, 411 (2002) (“‘Formal rulemaking has become increasingly rare. With a few exceptions, agencies [need only] use the informal rulemaking procedure to issue rules that have binding, substantive effect.’ The ‘increasingly rare’ instances when agencies use formal rulemaking occur when Congress mandates compliance with the procedure in the agency’s organic statute.”).
40 Robert Anthony, Interpretive Rules, Policy Statements, Guidance, Manuals, and the Like—Should Federal Agencies Use Them to Bind the Public?, 41 DUKE L.J. 1311, 1314 (1992) (arguing that notice-and-comment deters “casual and sloppy action, and thereby forestalls the confusion and needless litigation that can result from such action”).
41 On the role of administrative procedural safeguards, including notice-and-comment requirements, in promoting agency legitimacy, see Jessica Mantel, Procedural Safeguards for Agency Guidance: A Source of Legitimacy for the
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agency decision-making, may also help prevent arbitrary agency actions by facilitating judicial review. Notice-and-comment may help to promote political accountability by facilitating congressional and presidential oversight of agency actions, and it may help to prevent “overregulation.” While some prominent scholars, including Justice Kagan, have questioned whether the purported benefits of notice-and-comment are overstated, it remains true that most observers have, for many years, argued that notice-and-comment rulemaking should typically serve as the normatively preferred mode of developing regulation.

Administrative State, 61 ADMIN. L. REV. 343 (2009). See also KENNETH CULP DAVIS, DISCRETIONARY JUSTICE: A PRELIMINARY INQUIRY (1969) (arguing that agencies should make greater use of rulemaking in order to make administrative decisions more “just”).


43 Matthew D. McCubbins, Roger G. Noll, & Barry R. Weingast, Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies, 75 VA. L. REV. 431, 442 (1989) (“Administrative procedures erect a barrier against an agency carrying out such a fait accompli by forcing the agency to move slowly and publicly, giving politicians (informed by their constituents) time to act before the status quo is changed”); Michael Kober, Rulemaking Without Rules: An Empirical Study of Direct Final Rulemaking, 72 ALB. L. REV. 79, 86 (2009) (“Notice-and-comment ensures some level of political accountability because it gives visibility to internal agency deliberations that would otherwise be hidden both from the media and Congress.”).

44 Anthony, supra note 40, at 1317 (suggesting that notice-and-comment discourages “the tendency to overregulate”).

45 David J. Barron & Elena Kagan, Chevron’s Nondelegation Doctrine, 2001 SUP. CT. REV. 201, 231 (describing notice-and-comment as a “charade” and “Kabuki theater” and asserting that “Even the ostensible virtues of notice-and-comment procedures are today open to serious question”). Barron and Kagan are quoting E. Donald Elliot, Re-Inventing Rulemaking, 41 DUKE L.J. 1490, 1492 (1992) (noting that “No administrator in Washington turns to full-scale notice-and-comment rulemaking when she is genuinely interested in obtaining input from interested parties. Notice-and-comment rulemaking is to public participation as Japanese Kabuki theater is to human passions—a highly stylized process for displaying in a formal way the essence of something else which in real life takes place in other venues.”). See also Dorit Rubinstein Reiss, Tailored Participation: Modernizing the APA Rulemaking Procedures, 12 LEGIS. & PUB. POL’Y 321, 331 (2009) (citing literature suggesting that notice and comment procedures fail to “actually achieve[] effective public participation in many cases”).

46 Warren E. Baker, Policy by Rule or Ad Hoc Approach-Which Should it Be?, 22 LAW & CONTEMP. PROBS. 658, 660 (1957) (arguing that it is “almost axiomatic that, wherever feasible or appropriate, [agency] policy should not be
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Modern complaints about ossification are at heart, then, complaints about the inability of agencies to effectively and efficiently use normatively preferable notice-and-comment procedures to accomplish their regulatory duties. The ossification literature points to the courts, the White House, and to Congress as the primary sources of ossification. We discuss each source in turn in the following subparts.

A. Judicial Causes of Ossification

McGarity, like other ossification scholars, faults all three branches of government. However, his and others’ main criticisms are aimed at the courts. McGarity points in particular to the development of the “hard look” doctrine, under which courts are claimed to have aggressively re-interpreted the APA’s judicial review provisions allowing informal rules to be set aside only if they are “arbitrary or capricious,” an “abuse of discretion” or “otherwise not in accordance with law.” The ossification literature’s focus on the courts can be viewed as an attempt to generalize claims made by Melnick and by Mashaw and Harfst in widely cited case studies of the implementation of Clean Air Act and motor vehicle safety regulations, respectively.

’sprung’ upon the surprised party in a particular adjudicatory decision, but rather should be made clear through prior rule-making proceedings”); Ben C. Fisher, Rule Making Activities in Federal Administrative Agencies, 17 ADMIN. L. REV. 252, 259 (1965) (noting that “it…remains a fact that all commentators and even the agencies themselves favor greater utilization of ‘rulemaking’” and providing citations to relevant sources): DAVIS, supra note 41. Despite this widespread normative preference for notice-and-comment, the APA itself does not require agencies to choose a particular mode of regulation for a particular regulatory action, and agencies enjoy largely unfettered discretion to choose the mode by which they regulate. M. Elizabeth Magill, Agency Choice in Policy-making Form, 71 U. CHI. L. REV. 1383 (2004).


MELNICK, supra note 34; Jerry L. Mashaw & David L. Harfst, Regulation and Legal Culture: The Case of Motor Vehicle Safety, 4 YALE J. ON REG. 257 (1987); MASHAW & HARFST, supra note 30. Mashaw and Harfst document the National Highway Transportation and Safety Administration’s (NHTSA’s) retreat from prospective rulemaking (and toward a regulatory regime consisting almost entirely of after-the-fact recalls) in the face of repeated and successful court challenges to its regulations.
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The hard look doctrine originated in the United States Court of Appeals for the D.C. Circuit in the early 1970s. Under the doctrine, courts would require agencies to offer detailed explanations of their decisions, to especially justify departures from past decisions, to permit widespread public participation in the rulemaking process, and to consider alternative regulatory measures to those proposed. Failure to comply with the new regime could lead to vacatur and (or) remand for further agency action. The Supreme Court is widely viewed as endorsing a version of the hard look doctrine in its 1983 decision in Motor Vehicle Manufacturers Ass’n v. State Farm Mutual Automobile Insurance Co.

It is probably misleading to attribute a single, coherent doctrine of judicial review to the entire D.C. Circuit, let alone to the judges of all of the federal circuits. As Pierce has suggested, Democratic and Republican judges on the D.C. Circuit may approach hard look review through “dramatically different” ideological “prisms.”

49 D.C. Circuit Judge Levanthal was the first to use the term “hard look” in the context of judicial review of agency action. Harold Levanthal, Environmental Decisionmaking and the Role of Courts, 122 U. Pa. L. Rev. 509, 514 (1974). Judge Levanthal was referring, in fact, to the agency’s duty to give a “hard look at all relevant factors” before making a regulatory decision, though in practice the doctrine evolved to refer to the court’s duty to give a “hard look” at whether the agency had adequately conducted its own hard look. For a good historical discussion of the doctrine’s development, see Reuel E. Schiller, Rulemaking’s Promise: Administrative Law and Legal Culture in the 1960s and 1970s, 53 ADMIN. L. REV. 1139, 1155-66 (2001).


53 Richard J. Pierce, Political Polarity on the District of Columbia Circuit and Judicial Deterrence of Agency Rulemaking, 1988 DUKE L.J. 300. Even in the formative years of the doctrine, judges on the D.C. Circuit maintained relatively different conceptions of the proper role of the reviewing judge. In Judge Bazelon’s view, judges should ensure that regulation resulted from a reasoned decision-making process. In contrast, Judge Leventhal urged courts to review the technical substance of agency regulations, an approach that would require judges to become technically proficient experts in the subject of regulation. The Su-
and McGarity himself acknowledges that “the practical application of the hard look doctrine has varied widely from circuit to circuit and from case to case within circuits.”

Furthermore, as we discuss later in the article, there is some compelling evidence that hard look review is not, in practice, necessarily all that “hard.” But putting those warnings aside, it is probably fair to suggest that with relatively few exceptions most observers of administrative law would agree that since the 1970s the federal courts have been more aggressive in reviewing the propriety of agency actions than in the past, and that this relatively aggressive review is a prime cause of ossification.

How precisely does heightened judicial review lead to ossification? As McGarity explains it, heightened standards of judicial review force agencies to undertake a “Herculean effort of assembling the record and drafting a preamble [explaining the rule and published in the Federal Register] capable of meeting judicial requirements for written justification.”

“As a result the process of assimilating the record and drafting the preambles to proposed and final rules may well be the most time-consuming aspect of informal rulemaking.”

The prospect of these efforts and the resulting delays “impel the agencies to seek ways to avoid rulemaking.”

Or, as Pierce has said, “the judicial branch is responsible for most of the ossification of the rulemaking process” by reinterpreting the APA so as to “transform[] the simple efficient notice and comment process into an extraordinarily lengthy, complicated, and expensive process” in which, Pierce claims, courts will vacate agency regulations at the rate of fifty percent. As Pierce reasonably speculates, “if an agency expects a rulemaking to require five or ten years...
and tens of thousands of staff hours to complete, with only a fifty percent probability of judicial affirmance of the resulting rule, it will use rulemaking infrequently.”

B. Presidential Causes of Ossification

While ossification scholars typically place primary blame on the courts, they also emphasize the potential for the White House to contribute to ossification, particularly through OMB review of rulemaking. White House oversight of the bureaucracy, in something approximating its modern form, can be traced back to President Nixon’s “Quality of Life” program, under which “OMB established a procedure for improving the interagency coordination of proposed agency regulations, standards, guidelines and similar materials pertaining to environmental quality, consumer protection, and occupational and public health and safety.”

While OMB review under Nixon was relatively toothless, it was nonetheless criticized for “add[ing] layers of bureaucratic review [that] created significant delays” in the regulatory process.

Despite those criticisms of delay, both Presidents Ford and Carter expanded OMB review of rulemaking, with Carter requiring by executive order that agencies prepare cost-benefit analyses for major regulations. Carter’s actions were influenced in large part by the fear that absent White House action implementing stronger executive oversight, Congress would pass legislation requiring cost-benefit analysis as to all federal regulations.

President Reagan further formalized and strengthened Executive Branch oversight through his well-known Executive Order 12,291. The order “required all executive agencies to submit proposed rules and policy documents to OMB prior to their release,” with OMB ensuring that the agencies were basing their regulations on “adequate information concerning the need for and consequences

60 Id. at 66-67.
63 Id. at 125.
64 Id.
of the proposed action.” Agencies were also required to submit a formal “Regulatory Impact Analysis” for so-called “major rules” that analyzed the costs and benefits and the comparative cost-effectiveness of the proposed action, and were required under Reagan’s Executive Order 12,498 to submit annual regulatory plans to a specialized office within OMB, the Office of Information and Regulatory Affairs (OIRA). President George H. W. Bush maintained Reagan’s supervisory framework, and President Clinton implemented a somewhat modified oversight regime through his Executive Order 12,886. President George W. Bush further strengthened Clinton’s review framework by requiring that OIRA “sign[] off on the conclusion that the benefits of the rule will exceed its costs” and that agencies get approval to commence rulemakings from an agency “Regulatory Policy Officer.” President Obama is currently considering a major revision of past practices, though it is difficult to imagine that he will establish a regime in which his level of control over bureaucratic decisions is meaningfully less than that of his predecessors.

The modern regime of presidential oversight was intended to promote “political accountability, interagency coordination, rational priority setting, and cost-effective rulemaking” and to “curb[] the regulatory excesses of overzealous bureaucrats bent on promoting their agencies’ narrow agendas.” Its potential capacity to contribute to ossification is straightforward. The mere act of oversight itself may delay rule promulgation, as agencies must wait for OMB to review proposals and must respond to any OMB concerns. Compiling cost-

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65 Herz, supra note 26, at 222.
66 Id.
69 Seidenfeld, supra note 20 at 299 n.171.
70 Id.; see also Exec. Order No. 13,497 (Jan. 20, 2009) (revoking past Executive Orders concerning regulatory planning and review).
benefit (or regulatory impact) analyses can also be costly and time-consuming.\textsuperscript{73} As agencies devote more resources to meeting White House analytic demands, they will have fewer resources to devote to their core regulatory functions. This diversion of resources may prevent agencies from developing desired regulations, or create important incentives to avoid undertaking certain regulatory efforts in order to avoid oversight-imposed costs. The mere fact of potential reversal of a regulatory decision by OMB may also inject significant uncertainty into the regulatory process, further discouraging the agency from acting.\textsuperscript{74}

C. Congressional Causes of Ossification

Congress has also allegedly done its part to promote ossification.\textsuperscript{75} McGarity points in particular to congressionally imposed analytic requirements, such as those contained in the Regulatory Flexibility Act (RFA) and which requires agencies to prepare a special analysis whenever a proposed rule will pose a “significant economic impact on a substantial number of small entities.”\textsuperscript{76} Congress also passed the Paperwork Reduction Act (PRA) in the early 1980s, which requires agencies to consider how their rules may increase the information collection costs of the regulated public.\textsuperscript{77} Another example is the National Environmental Policy Act, originally passed in 1969 and amended in 1982, that requires that agencies prepare environmental impact statements for major federal actions that may sig-

\textsuperscript{73} McGarity, supra note 13, at 1406 (noting that regulatory impact analyses may cost more than two million dollars and require one or more person-years of staff effort).

\textsuperscript{74} Id. at 1433 (arguing that “agency officials cannot know whether internally generated solutions to problems that arise in the early development of a rule will withstand OMB review”).

\textsuperscript{75} Id. at 1404. Congress also enjoys a number of more traditional oversight and control mechanisms, such as congressional hearings and investigations and threats to cut agency budgets. See Thomas McGarity, The Psychology of Accountability and Political Review of Agency Rules, 51 DUKE L.J. 1059, 1075-91 (2002) (discussing congressional mechanisms of oversight and control); Jack M. Beerman, Congressional Administration, 43 SAN DIEGO L. REV. 61 (2006) (same).


nificantly affect the environment. According to the ossification liter-ature, these analytic and reporting requirements take time to com-
plete and consume scarce agency resources, creating disincentives to
regulate (or difficulties in regulating) through notice-and-comment.

D. Ossification and Non-Rule Rules

One important strand of the ossification literature emphasizes
the ways in which the various procedural constraints discussed
above may encourage agencies to regulate outside of the overbur-
dened notice-and-comment process by issuing what Morton
Rosenberg has called “non-rule rules,” or what Robert Anthony re-
ers to as “non-legislative rules.” Because the notion of non-rule-
rules is relatively non-obvious, we spend some time here describing
it.

The APA recognizes a distinction between legislative rules
that have binding legal effect and that must normally be promul-
gated through notice-and-comment, and “interpretative” rules that
are exempt from procedural requirements. Legislative rules “grant
new rights and impose new obligations” whereas interpretative rules
are said to “merely explain [the agency’s understanding] of the rights

78 83 Stat. 852 (1969), amended by Pub. Law No. 97-258, § 4(b) (Sept. 13,
1982).
79 Morton Rosenberg, Whatever Happened to Congressional Review of Agency
Rulemaking?: A Brief Overview, Assessment, and Proposal for Reform, 51 AD-
Interpretive Rules, Policy Statements, Guidance, Manuals, and the Like—
Should Federal Agencies Use Them to Bind the Public?, 41 DUKE L.J. 1311,
1325 (1992) (defining “non-legislative rules” as including “interpretive rules”
and all other “policy documents” that impose “binding norms” on the public
without passing through notice-and-comment).
80 For a description and history of the distinction between substantive and inter-
pretative rules, see Kevin W. Saunders, Interpretative Rules with Legislative Ef-
The boundaries between these categories of agency action may tend to be rather
blurry. Id. at 347 (“there has always been doubt whether one could reliably tell
the difference between a rule that interpreted a statute and one that extrapolated
from the statute.”); Michael Asimow, Nonlegislative Rulemaking and Regula-

tory Reform, 1985 DUKE L.J. 381 (“Courts have encountered difficulty in dis-
tinguishing legislative from nonlegislative rules because the practical impact of
both kinds of rules may be the same.”).
and obligations already created...by...statute.”\(^{81}\) The APA also exempts from Section 553’s procedural requirements agency “general statements of policy”—which, unlike legislative rules, do not have binding legal force—and “rules of agency organization, procedure, or practice,” which may be contrasted with the “substantive” nature of legislative rules.\(^{82}\)

Of course, formally non-binding and purportedly non-substantive non-rule rules may nonetheless be both substantively important to regulated parties and, practically speaking, as binding an agency norm as is a proper legislative rule. While a court may refuse to enforce a non-rule rule against a regulated party who has the temerity to challenge the agency’s application of it, the prospect of suing an agency over its improper use of non-rule rules will often be an unattractive one, and agencies may be able to regulate via non-rule-rules with relative impunity.

If we accept the premise that legislative rules have become dramatically more costly for agencies to develop and promulgate, it would not be terribly surprising to see that agencies are increasingly willing to take the risk of court sanction for misuse of non-rule rules by attempting to issue substantively important regulations disguised as mere “interpretations” or “policies.” Indeed, that is precisely what Anthony and others have argued has happened.\(^{83}\) Anthony asserts

\(^{81}\) Saunders, supra note 80, at 350.

\(^{82}\) Charles H. Koch, Jr., Public Procedures for the Promulgation of Interpretative Rules and General Statements of Policy, 64 GEO. L.J. 1047 (1976) (distinguishing legislative rules, interpretative rules, and general statements of policy). According to Bonfield, a “statement of policy” is “not usually conceived of as law,” but rather “merely announces how the agency intends to interpret the law.” Arthur Earl Bonfield, Some Tentative Thoughts on Public Participation in the Making of Interpretative Rules and General Statements of Policy Under the A.P.A., 23 ADMIN. L. REV. 101, 114 (1970). Such an announcement may be express or implied; it may follow from the agency’s conduct or it may be deduced from press releases or newspaper interviews.” Id. at 114. Policy statements may often be “directed primarily at the staff of an agency describing how it will conduct agency discretionary functions, while other [e.g. legislative] rules are directed primarily at the public in an effort to impose obligations on them.” Id. at 115.

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that “it is manifest that nonobservance of APA rulemaking re-
quirements is widespread,” and provides numerous examples of agencies
attempting to regulate through non-rule rules—though, interestingly, all of his examples appear to involve courts disapproving of the practice. The consequence of non-rule rules, he says, is public confusion over content of regulatory law, as well as the “doubtless more costly...tendency to overregulate that is nurtured when the practice of making binding law by guidances, manuals, and memo-
randa is tolerated.” Or, as Pierce has put it, the increased use of non-rule rules “is not an acceptable solution to the problem of ossification of [notice-and-comment] rulemaking. It will produce many more...rules, but those rules will be of lower quality and will have less political legitimacy” because of the lack of public participation.

E. Proposed Responses to Ossification

Belief in the existence and normative undesirability of ossifi-
cation has led prominent observers of the federal administrative
process to call for ambitious reforms to the regulatory system. For example, a 1993 Carnegie Commission report on “improving regula-
tory decision making” used the threat of ossification to support its
recommendation that agencies make greater use of so-called “negotiated rulemaking,” and it called on agencies to develop a complicated “menu” of rulemaking procedures containing “various degrees of public participation and comment,” and from which agencies would choose depending on the needs of a particular rulemaking.
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Jody Freeman similarly cites the problem of ossification to support her call to shift the regulatory process toward a model of “collaborative governance.” Freeman’s model “views the administrative process as a problem-solving exercise in which parties share responsibility for all stages of the rule-making process, in which solutions are provisional, and in which the state plays an active, if varied, role.” For Freeman, negotiated rulemaking is a prime example of how agencies should develop regulations, though in current administrative practice negotiated rulemaking is rarely used.

Frank Cross has forcefully argued that judicial review of agency decisions has become a “lose-lose proposition for the public” because of ossification and other related “pathological consequences” that judicial review allegedly imposes upon the regulatory process. Cross’s proposed solution is not negotiated rulemaking, but rather the total elimination of judicial review, a proposal that, if followed, would have significant consequences for the ability of courts to protect the public from arbitrary or illegal bureaucratic actions.

Other scholars use the threat of ossification to attack presidential oversight of the rulemaking process. For example, it has been suggested that OMB-mandated cost-benefit analysis (CBA) has contributed to ossification by requiring “fruitless number crunching, which tends to delay agency action, or stymie it altogether, without producing any significant increase in the efficiency or rationality of regulation.” The obvious reform is to eliminate OMB review and

the agency typically adopts the consensus rule as its proposed rule and then proceeds according to the notice-and-comment procedures specified in the APA. Proponents of negotiated rulemaking claim that these procedures - which encourage affected parties to reach an agreement at the outset - will decrease the amount of time it takes to develop regulations and, more notably, reduce or eliminate subsequent judicial challenges.” Cary Coglianese, Assessing Consensus: The Promise and Performance of Negotiated Rulemaking, 46 DUKE L.J. 1255, 1257-58 (1997).

88 Jody Freeman, Collaborative Governance in the Administrative State, 45 UCLA L. REV. 1, 8-10 (1997).
91 Id. at 1069. Professor Cross also argues for the abolition of judicial review in Frank B. Cross, Shattering the Fragile Case for Judicial Review of Rulemaking, 85 VA. L. REV. 1243 (1999).
92 Michael A. Livermore, Reviving Environmental Protection: Preference-
CBA. But doing the first would negate any possible benefits arising from strong presidential control of regulation, such as greater political accountability.\(^93\) Doing the second would remove a potentially promising method for disciplining the regulatory process on the basis of an intuitively attractive principle—namely, that bureaucracy should restrict individual freedom or take private property via regulation only when the societal benefits of doing so demonstrably outweigh the costs.\(^94\)

Most recently, Dorit Reiss has invoked ossification to support her call for allowing agencies to choose between three distinct “models for overseeing proposed rules” depending on the nature of individual rulemakings, including “peer review” and “deliberative democracy mechanisms.”\(^95\) Reiss’s proposal echoes in spirit the 1993 Carnegie Commission report cited above, in that she would grant agencies enhanced discretion to choose among various rulemaking procedures; exercising that discretion would, she says, necessarily entail expanded agency choice over “how their [regulatory] decisions will be reviewed.”\(^96\)

In sum, the threat of ossification has led scholars to propose a number of potentially far-reaching reforms to the federal regulatory process. While these reforms, if implemented, may (or may not) stand much chance of improving regulatory outcomes, it does seem clear that there is at least some non-negligible risk that certain reform proposals might decrease opportunities for the elected and judicial


\(^{95}\) Reiss, *supra* note 45, at 325.

\(^{96}\) *Id.* at 372-73.
branches of the federal government, and for the public at large, to monitor, influence, and check undesirable agency actions. As Reiss herself notes,

Any reform [of the APA’s notice-and-comment scheme] carries substantial costs in terms of effort expended in adjusting to a new system and in dealing with the inevitable unintended consequences. It is always hard to change, especially when the change is substantial and affects a large system. Therefore, those suggesting reform should have the burden of demonstrating that the costs associated with their suggested changes are worthwhile.

While we do not address in this article the benefits that might arise from reforming the notice-and-comment regime (and we do not view ourselves as bearing any particular burden to do so), we do think that whether such reforms are worth pursuing also depends, in part, on whether current arrangements are truly plagued by the ills that the ossification literature identifies.

II. CRITIQUES OF THE OSSIFICATION THESIS

The ossification thesis has long been accepted as a matter of faith. With relatively few exceptions, scholars have failed to subject the notion of ossification to much in the way of empirical testing. This is not to say that skeptics haven’t challenged certain aspects of the thesis. In particular, Mark Seidenfeld stands out as a persistent and thoughtful partial critic. In a 1997 article that elicited a spirited response from McGarity, Seidenfeld agreed with the “general thrust of the literature that the rulemaking process has become unnecessarily burdensome,” but argued that ossification was “not a forgone conclusion” of meaningful judicial review, which performs a “valuable function by encouraging agencies to think through the full implications of their policies.”

In essence, Seidenfeld agreed with

97 For example, as Reiss notes, her proposed reform is subject to the “powerful concern” that letting agencies determine “how their decisions will be reviewed” by courts “seems to assume a high level of trust in agencies” and that such a system may be “prone to abuse” or even “to guarantee abuse.” Id. at 373.
98 Id. at 370.
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McGarity and others that “aggressive judicial review of agency reasoning has contributed to ossification” but disagreed that “merely easing the standard of review will deossify [the rulemaking] process.”

In a recent and important article, Seidenfeld has revisited his concession that judicial review necessarily contributes to ossification. Drawing on economic and organizational theories of decision making, he suggests that any ossifying effects of stringent judicial review may be offset by the variety of other factors that influence an agency’s decisions to act, including, for example, decisional heuristics and biases and professional incentives to take or to avoid certain courses of action.

Seidenfeld’s critiques of the ossification thesis are more speculative and theoretical than they are empirical. Self-consciously empirical challenges are rare. Jordan’s 2000 article is a principle exception. Jordan identified all legislative rules remanded by the D.C. Circuit from 1985-1995. He then sought to determine what happened to the regulatory initiatives after remand. Jordan found that agencies were often able to “recover” from a remand relatively quickly and successfully by re-explaining the rules. He identified only five instances (out of sixty-one total remands) in which a major rule was remanded and the agency was unable to completely or partially “recover” its initial regulatory achievement. As he claims, his findings have “profound implications for our understanding of the causes of the ossification of informal rulemaking and the possible solutions to that problem.” In particular, his research suggests that courts are much less likely to seriously interfere with agency decisions than the ossification literature commonly assumes. His survey of D.C. Circuit remands provides evidence that hard look review, as it is applied in practice, is unlikely to “stifle[] or deter[] informal rulemaking [by] impos[ing] excessive and unnecessary costs on financially strapped agencies.” The D.C. Circuit seems to generally respect agency decisions. And when it finds those decisions prob-

100 Seidenfeld, Demystifying Deossification, supra note 14, at 523.
102 Id. at passim.
103 Id. at 407.
104 Id. at 424.
105 Id. at 433.
106 Id. at 439.
107 Id. at 445.
lematic, agencies are able to relatively quickly satisfy judicial concerns.

Our own recently published study provides another empirical test.\footnote{Yackee & Yackee, supra note 24.} Since the early 1980s, agencies have been required to publish their various regulatory activities in the Unified Agenda, a twice-yearly document published in the Federal Register. The Unified Agenda records regulatory proposals and initiatives by a unique regulatory identification number (RIN), and agencies regularly update the progress of each action (identified by RIN) throughout the regulatory process, up until promulgation as a final rule. We used a database supplied by RISC to analyze all notice-and-comment rules published in the Unified Agenda from 1983 to 2006. We examined whether NPRMs that were subject to procedural constraints, such as OMB review and analysis required by the Regulatory Flexibility Act, took significantly longer to be promulgated than unconstrained rules. Our statistical analysis showed that procedural constraints did not significantly increase time to completion.

And what about agency’s resort to non-rule rules? Very little empirical research has been done on the subject, with a recent exception a student note published in the \textit{Yale Law Journal}.\footnote{Connor N. Raso, Note: Strategic or Sincere: Agency Use of Guidance Documents, 119 YALE L.J. 782 (2010). Two other interesting empirical studies on the use of non-rule-rules are James T. Hamilton & Christopher H. Schroeder, \textit{Strategic Regulators and the Choice of Rulemaking Procedures: The Selection of Formal vs. Informal Rules in Regulating Hazardous Waste}, 57 LAW. & CONTEMP. PROBS. 111 (1994) and James T. Hamilton, \textit{Going by the (Informal) Book: The EPA’s Use of Informal Rules in Enforcing Hazardous Waste Laws}, 7 ADVANCES IN THE STUDY OF ENTREPRENEURSHIP, INNOVATION, & GROWTH 109 (1996).} Connor Raso presents what he calls the “first large-scale empirical analysis” of agency use of non-rule rules.\footnote{Id. at 786.} Raso relies on information provided by agencies on their websites to compile a list of “guidance documents” issued by five federal agencies from 1996 to 2006. He then compares the number of “significant” guidance documents to the number of legislative rules promulgated by each agency. He finds that the proportion of guidance to rules is remarkably low. For example, the average ratio of significant guidance documents to legislative rules is just 0.08.\footnote{Id. at 813 Table 3.} In other words, Raso finds no evidence that agencies are substituting non-rule rules for legislative rules. Agencies
generally issue relatively few significant non-rule-rules, and they continue to issue large numbers of legislative rules.

While these various studies have begun to call into question the accuracy of the ossification thesis, none of the existing studies have been able to compare the volume and speed of rulemaking in the allegedly ossified modern era to the volume and speed of rulemaking in the days before the imposition of the hard look doctrine and expanded opportunities for presidential and congressional oversight. This failure to provide a true “before and after” picture of the administrative state, in which administrative practice in the pre-ossified era is compared and contrasted with administrative practice in the ossified era, is a result of the lack of readily accessible data on pre-1980s rulemaking. While the RISC data exists in computerized database form, a fact that obviously facilitates quantitative analysis, no equivalent database exists for pre-1983 rules. And while case studies of early rulemakings are certainly possible, in our view the ossification literature has too frequently relied on case studies to make generalized claims about the failings of modern regulatory practice.

III. HYPOTHESIZED CONSEQUENCES OF OSSIFICATION

The ossification literature predicts (or can be read to suggest) that the accretion of these various procedural constraints imposed by the courts, the White House, and Congress on bureaucratic autonomy has severely impacted the ability of federal agencies to fulfill their Section 553 notice-and-comment rule-writing obligations. Drawing on the discussion presented above, we can identify four main hypothesized consequences of ossification.

First, because notice-and-comment rulemaking has become more costly since the mid-1970s, agencies will fail to utilize notice-and-comment as much as they should. We might thus expect to see the volume of notice-and-comment NPRMs and final rules decline over the two periods.\footnote{As Pierce asserts in his treatise, “there is mounting evidence that agency use of rulemaking is declining. Some agencies that used to rely extensively on rulemaking have very nearly given up the process”; he goes on to suggest that the causes are those discussed in the ossification literature. PIERCE, supra note 23, at 511. The notion that agencies have abandoned notice-and-comment also permeates the work by McGarity and other ossification scholars already cited above.}
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Second, when agencies choose to regulate via notice-and-comment, compliance with various procedural hoops and hurdles will significantly delay rule promulgation, so that it will take longer to promulgate rules in the ossified period than it did in the past.\textsuperscript{115}

Third, where agencies persist in proposing notice-and-comment rules, the proposal process may bring to light unforeseen objections by key constituents. The likely costs associated with adequately responding to those objections (compiling an improved record, drafting adequate responses) or the threat of an eventual lawsuit may encourage the agencies to abandon their NPRMs at higher rates.

Fourth, the rigors and uncertainties of the notice-and-comment process may encourage agencies to increasingly resort to the use of non-rule-rules to achieve important regulatory objectives.

In the next Part we describe our strategy for conducting a large, multi-rule, quantitative comparison of pre- and post-ossification rulemaking that aims to test each of these hypotheses.

IV. DESIGNING AN EMPIRICAL TEST OF THE OSSIFICATION THESIS

In designing a test of the ossification thesis our main challenge was constructing a dataset of notice-and-comment NPRMs and final rules that covered a large number of regulatory actions across a long span of years. We relied on the fact that the APA and the Federal Register Act require agencies to publish their NPRMs and final rules in the Federal Register, the official daily journal of the federal bureaucracy.\textsuperscript{116} Until recently, compiling a list of notice-and-

\textsuperscript{115} See, e.g., STEPHEN BREYER, BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION 49 (1993) (asserting that OMB and judicial review of rulemaking “take[s] time” and that agencies have responded to hard look review by “adopt[ing] complex, time-consuming procedures...for making rules”).

\textsuperscript{116} Federal Register Act, 44 U.S.C. ch. 15 (requiring agencies to publish in the Federal Register all documents having “general applicability and legal effect”). Administrative Procedure Act, § 552(a)(1)(D) (requiring publication of “substantive rules of general applicability adopted as authorized by law, and statements of general policy or interpretations of general applicability formulated and adopted by the agency.

For a description of the APA and Federal Register Act publication requirements, see Randy S. Springer, GATEKEEPING AND THE FEDERAL REGISTER: AN ANALYSIS OF THE PUBLICATION REQUIREMENT OF SECTION 552(a)(1)(D) OF THE ADMINISTRATIVE PROCEDURE ACT, 41 ADMIN. L. REV. 533 (1989). While it is certainly possible that agencies do not fully comply with the-
comment proposals and final rules would have entailed laborious searching through hard copies of the Federal Register. Fortunately, Westlaw has developed a fully searchable digital database covering all past Federal Register issues. This means that through structured electronic searches it is possible to systematically identify virtually all theoretically relevant NPRMs and final rules without the need to rifle through thousands of paper volumes.

Despite the advantages offered by Westlaw over traditional manual searches, we experienced three particular challenges. First, the Federal Register is not organized such that Section 553 proposals are easily distinguished from other kinds of regulatory proposals and notices. Thus, while the Federal Register has sections entitled “Proposed Rules” and “Final Rules and Regulations,” there are many other items besides Section 553 NPRMs and final rules that are published in these sections, and a strategy that simply counts up the number of entries in these sections will return incorrect and grossly misleading results. Second, agencies themselves typically do not explicitly identify a given proposal or rule as a Section 553 action. As a result, our searches returned a large number of false positives, meaning that we had to manually verify all coding decisions. Third, and as we explain in more detail below, our analysis required us to “match” final rules with their proposals, something that often necessitated multiple Westlaw searches for a single regulation. In the end, the data collection took over a year to complete and involved our own the efforts as well as those of several research assistants.

Se publication requirements, see id., we believe that agencies almost certainly comply as to the publication of their substantive proposals and final rules where the agencies are seeking public comment. Substantive proposals and final rules are clearly subject to both FRA and APA publication requirements, and the courts have long insisted that agencies publish notice of substantive regulatory actions if the actions are to be given legal effect. See, e.g., Hotch v. United States, 212 F.2d 280 (9th Cir. 1954) (holding that an Interior Department action changing salmon fishing regulations in Alaska could not be enforced against defendant fisherman because the action had not been published in the Federal Register). While agencies may seek to avoid the costs of notice-and-comment by issuing (and failing to publish) non-rule rules, if the agency decides to regulate via notice-and-comment, it faces no real incentive to avoid publication of both the NPRM and the final rule. Indeed, Springer suggests that agency decisions to publish substantive (notice-and-comment) rules are “virtually automatic.” Springer, supra, at 545.

117 The Westlaw database is “FR-ALL.”
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A. Why the U.S. Department of Interior?

We elected to compile all Section 553 (e.g. notice-and-comment or informal or legislative) NPRMs and final rules issued by all of the rule-writing agencies of the U.S. Department of the Interior. We limited our efforts to a single department because, despite the efficiencies that Westlaw allows, the search process remained arduous and time-consuming. Extending the project to the entire federal government, or to multiple departments, would have far exceeded our resources. We concentrated on Section 553 rules because the Section 553 notice-and-comment process is the primary focus of the ossification literature.

We focused on Interior for three main reasons. First, Interior’s structure has remained relatively stable since the early years of the study, with the four major rule-writing Interior agencies (the Bureau of Indian Affairs [BIA], Bureau of Land Management [BLM], Fish and Wildlife Service [FWS], and National Park Service [NPS]) all in existence over the entire period of our study. (The thirteen other Interior agencies included in our study are listed in the footnotes). In contrast to Interior, many other departments and agencies potentially worthy of study were either not created until the late 1960s or 1970s or endured fundamental organizational changes in the middle of our study, thereby limiting our ability to collect a significant sample of pre-ossification rulemaking activity. For example, the Department of Labor’s OSHA was not created until 1970. The Environmental Protection Agency dates back to the same year. The Department of Transportation did not open its doors until 1967. Choosing a department like Interior, with major agencies that have existed for many years, thus allows us to complete a proper “before and after” examination.

Second, and just as importantly, Interior’s regulatory portfolio includes a diverse array of subjects, a fact that gives us greater confidence in offering generalizable conclusions about the

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118 The other Interior agencies included in our study are the Office of Oil and Gas (OOG), the Oil Import Administration (OIA), the Office of the Secretary (OOS), the Bureau of Mines (BOM), the Bureau of Reclamation (BOR), the U.S. Geological Survey (GES), the Heritage Conservation and Recreation Service (HCR), the Minerals Management Service (MMS), the Office of Minerals Exploration (OME), the Office of Surface Mining, Reclamation, and Enforcement (OSM), the Office of Saline Water (OSW), the Federal Water Pollution Control Administration (WPC), and the Mining Enforcement and Safety Administration (MES).
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reality or magnitude of ossification as well as about the historical development of federal notice-and-comment practice more broadly. Indeed, the diversity of Interior’s portfolio is illustrated by the Department’s semi-official nickname, “the Department of Everything Else.”

Third, Interior’s regulatory portfolio is of potentially high salience to impacted members of the public. Important issue areas include the regulation of endangered species; the regulation of hunting and grazing on federal lands; the regulation of free speech in national parks; and the regulation of mining and mine reclamation. The ossification literature is generally concerned with the ossification of substantively important rules, and our focus on Interior agencies should help to ensure that dataset will contain a good number of such rules.

B. Compiling the Database

We initiated our project by compiling a database of all Interior NPRMs issued from January 1, 1950 through December 31, 1990 in which the agency sought public input on a proposal to modify the Code of Federal Regulations (CFR). We consider NPRMs meeting those two basic requirements—a request for public input and a proposed modification to the CFR—to be “Section 553 NPRMs.” To identify NPRMs we ran a series of Westlaw searches. Sample search language is reproduced in the footnotes. We recorded basic infor-

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120 Edward Weinberg & John R. Little, Jr., Meandering Through the Interior Maze, 1 NAT. RESOURCES & ENV’T 17 (1985) (“Interior’s activities tend to attract unusual attention from the media and a wide variety of outside interests”).

121 To identify Section 553 NPRMs, we ran variations on the following basic Westlaw search in the FR-ALL database: PR("INTERIOR" & "FISH AND WILDLIFE" & "PROPOSED RULE") & "COMMENT" "PARTICIPAT!" & DA(AFT 1949 & BEF 1991). The “PR” term refers to the “Preliminary” (or header) section of each Westlaw document. The PR section contains basic information about the document. In the case of Federal Register documents, it al-
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information about each Section 553 NPRM, including the issuing agency, FR citation, date of publication, proposal title, and CFR section affected. With some exceptions, the identification of the NPRMs was relatively straightforward but time-consuming.\footnote{122}

After compiling the list of NPRMs, we attempted to match each NPRM with its associated final rule. To do this, we searched for entries in the Federal Register’s “rules and regulations” section that referenced each individual NPRM.\footnote{123} Typically, the preamble to a final rule will reference the Federal Register citation of its associated NPRM, or will mention the NPRM’s date of publication. Those two pieces of information functioned as our main initial search terms. In

most always contains the issuing federal department and agency. The “PROPOSED RULE” term limits the search to notices listed in the “proposed rule” section of the Federal Register, itself which is divided into “Notices,” “Proposed Rules,” and “Rules and Regulations” sections. Not all entries in the Proposed Rules or Rules and Regulations sections are Section 553 proposals or final rules. The terms “COMMENT” and “PARTICIPATE!” are the key search terms. They return documents in which the agency is offering the public a chance to provide “comment” on the proposal or otherwise to “participate.” In our experience, agencies virtually always include some variant of the word “comment” or “participate” whenever a proposal is seeking public input under APA Section 553.

\footnotetext[122]{One of the main coding difficulties involved revisions to NPRMs. Sometimes an agency will re-issue an NPRM, incorporating modifications based on a first round of comments. In those cases we elected to retain the original NPRM as the NPRM of interest. This means, for example, that we do not include the revised proposal in our dataset as a distinct NPRM. Nor do we match final rules to revised NPRMs; instead, we match final rules to the original proposal. This strategy is particularly important for our analysis of regulatory delay, as the fact of re-issue will tend to enter the dataset indirectly by lengthening the time to promulgation. However, where a revised NPRM explicitly referred to the original NPRM as withdrawn, we coded the original NPRM as withdrawn, and entered and matched the new NPRM as distinct proposal.}

\footnotetext[123]{To identify final rules, we first ran versions of the following search of the FR-ALL database: \texttt{pr("INTERIOR" \& "FISH AND WILDLIFE" \& "RULES AND REGULATIONS") \& "X FR Y" \& da(aft 1949 \& bef 01/01/2009)),} where “X” and “Y” are the FR volume and page numbers, respectively, of the NPRM whose final rule we were trying to locate. We ran additional searches where the initial search failed to turn up a final rule. For example, we replaced “X FR Y” with “X Fed. Reg. Y” or “X \cite{5} Y,” where “\cite{5}” means “within five words.” That strategy dealt with the fact that Westlaw’s scanned copies of the FR sometimes incorrectly read “FR” as “PR.” We also replaced the reference to the NPRM’s FR citation with references to the NPRM’s date of publication (for example, “September 10, 1959”). As noted above, where we were unable to locate a final rule using the NPRM FR citation or date of publication, we ran date-limited searches based on NPRM title or subject matter.
some cases the final rule failed to mention either piece of information, and the final rule was matched to its NPRM on some other basis (such as a reference to the title or subject of the NPRM). We (or our research assistants) verified that the final rule returned in the Westlaw search indeed matched the selected NPRM by reading the final rule. We recorded in our database basic information about each matched final rule, including, most importantly, the date of publication.

From this brief description of our efforts the reader can see how three of the four core empirical implications of the ossification thesis, presented in Part III, supra, might be tested.

First, because our database essentially counts the number of NPRMs and final rules issued by each agency over time, we are able to track the volume of proposed and final rules over time, so that we can see if regulatory activity declines as our agencies enter the ossified era.

Second, by recording the dates of NPRMs and associated final rules, we can calculate the length of time that elapses between these two key stages in the regulatory process. The ossification literature suggests that there will be a significantly longer period of time between NPRM and final rule in the ossified era.

Third, we can track the regulatory “success rate” by calculating the proportion of rules that reach finalization in the pre-ossified and the ossified eras. The ossification literature suggests that more NPRMs will fail to be promulgated in the ossified era.

As described above, our database does not allow us to examine whether the use of non-rule-rules has also increased over time. However, as we explain in Part VII, below, we did collect additional data that allows us to present at least a preliminary test of that possibility.

In the following Parts we discuss in turn what our data allows us to say about trends in regulatory volume, regulatory success rates, regulatory delay, and the use of non-rule-rules.

V. REGULATORY VOLUME

We identified 2792 unique Section 553 NPRMs issued by Interior over the period of study (1950-1990), and a total of 2718 final rules. Our dataset also contains 294 non-unique NPRMs, for a total of 3086 NPRM entries. Non-unique NPRMs are a function of the structure of our dataset and Interior practice. Occasionally an agency will
issue a single NPRM, and that NPRM will result in two or more final rules. In essence, the agency divides the subject matter of the original NPRM into multiple pieces, issuing multiple final rules from the same initial proposal. Our analysis of the time that it takes to regulate requires that each final rule be matched to an NPRM, and so in cases where a single NPRM led to multiple final rules, we created a duplicate entry in our database for the particular NPRM. For example, if FWS issued an NPRM, published at 100 FR 201, that resulted in four final rules, our dataset would contain four entries for an FWS NPRM published at 100 FR 201, with each of these four duplicate entries matched to one of the four associated final rules. For ease of presentation, our figures and tables include data from both unique and non-unique NPRMs. All figures and tables are printed in the Appendix.

A. Departmental Trends in Volume

Figure 1 provides a first glimpse at the data. Figure 1 illustrates the annual number of NPRMs issued by the Interior Department as a whole. A casual examination suggests little evidence of any wholesale abandonment of notice-and-comment rulemaking. We see that in the very early years of the APA, the Department issued relatively few NPRMs—just nine in 1950, for example. By the late 1950s and early 1960s, however, Interior was typically issuing between 40 and 70 NPRMs per year. From the late 1960s through the last year of our data, Interior issued at least 70 NPRMs per year—and, in some years, many more. Indeed, peak NPRM production occurred in 1988, when Interior issued 136 proposed rules—nearly triple the number of proposed rules typically issued in the early 1960s. We also see relatively high NPRM production in the late 1970s, the period of time during which the hard look doctrine may have been most severe.

124 The use of non-unique NPRMs is especially important for our analysis of regulatory delay, as it provides a mechanism to account for the fact that various pieces of a single proposal may be promulgated in separate final rules at different times. 125 Schiller observes a similar increase in rulemaking over the same years for the federal government as a whole. As he says, “Beginning in the 1960s federal agencies’ neglect of rulemaking began to decline, gradually at first and then with such speed that by the early 1970s commentators declared that the administrative state had entered the ‘age of rulemaking.’” Schiller, supra note 49, at 1147.
For example, in 1976, 1977, and 1978 the Department issued well over 100 NPRMs per year.

Figure 2 provides an equivalent look at department-level final rule production. We see a similar pattern: very low production in the early years, with a significant rise in activity in the late 1950s and early 1960s. Rule production remains high through the 1970s and 1980s, with the peak year of activity occurring in 1988, with over 120 final rules promulgated. Even in the late 1970s, at the presumed height of the hard look doctrine, final rule production was typically over 80 per year.

While Figures 1 and 2 indicate relatively significant year-to-year (and perhaps cyclical) trends in rulemaking, one pattern evident in both Figures especially demands explanation. Why was rulemaking activity so rare in the early 1950s, and why did it so dramatically and enduringly increase in the late 1950s and early 1960s? We think the answer lies in understanding Interior’s long-standing claim that most of its regulatory activities are technically exempt from APA rulemaking requirements under the APA’s “public property” exception. As Charles Wheatley observed in 1955, the Department construed “public property” as including the “public domain” or “public lands.” Because most of what Interior does concerns the public domain, most of what Interior does should be exempt from APA procedural requirements. Interior’s position was controversial, and as early as 1954 the Department was coming under pressure to comply with the APA.

Even though the D.C. Circuit would uphold the Department’s expansive definition of “public property,” in 1954 the Department issued a Secretarial statement adopting a policy of complying with notice-and-comment procedures when feasible. The effects of this policy statement seem reflected in the figures. Note, for instance, that the number of final rules more than doubles from 1954 to 1955 (from 10 to 35), a pattern that confirms Professor Strauss’s

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126 See supra note 12 (listing exceptions to the APA).
128 Id. at 180 (noting a 1954 American Bar Association resolution calling on Interior to abide by APA rulemaking requirements); McCarty, supra note 110, at 171 (discussing a Senate bill proposing to eliminate the public property exception).
more impressionistic sense that by the late 1950s the Department had fully implemented a “firm policy of honoring those [APA-required] procedures in any important public lands matter.” Interior reaf-

firmed its policy encouraging resort to notice-and-comment in a 1971 “Notice” published in the Federal Register in which the Deputy As-

sistant Secretary declared “the policy of the Department…the policy of the Department…to give not-

ice of proposed rulemaking and to invite the public to participate in rule making in stances where not required by law” and “to the fullest extent possible.” Exceptions to the policy “are not to be favored and should be used sparingly.” From the perspective of the ossifi-

cation thesis, this story is somewhat ironic. Here, policy statements are being used to increase use of notice-and-comment, rather than to avoid it. It is even conceivable that Interior’s policy statement in some sense legally binds the Department to provide notice and opportunity to comment even if the Department is not statutorily bound to do so.

B. Agency-Level Trends in Volume

Figures 3 and 4 provide equivalent looks at the production of NPRMs and final rules by the four main rule-writing agencies, BIA, BLM, FWS, and NPS. Perhaps the clearest messages from the Figures is that historical patterns in rulemaking are quite diverse across agencies, and that rulemaking varies tremendously from year to year.

131 Peter L. Strauss, Rules, Adjudication, and Other Sources of Law in an Executive Department: Reflections on the Interior Department’s Administration of the Mining Law, 74 COLUM. L. REV. 1231, 1249 (1974).
133 Id. at 8837. At the time of the Notice, Interior’s regulatory process was receiving intense scrutiny and criticism. Congress had established a “Public Land Law Review Commission” that examined in detail federal land policy. The Commission’s investigation spanned more than six years, and it delivered its final report to the President and Congress in 1970. The report recommended that Congress amend the APA to require Interior to follow rulemaking procedures in public land matters. Id. Interior’s 1971 Notice appears to be an attempt to head off such a statutory change.
134 Peter Raven-Hansen, Regulatory Estoppel: When Agencies Break Their Own “Laws,” 64 TEX. L. REV. 1, 47 (1985) (“A long-standing and well-known agency practice might also create a presumption of ‘objective reliance’ [justifying legal enforcement] because consistent agency adherence evidences the law's materiality to the public and often directs public attention to it”).
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year, with all of the figures showing evidence of peakiness—suggesting cycles of highly productive years followed by marked drop-offs in rule-writing activity.

Of the four agencies, two (BLM and FWS) show very noticeable increases in activity in the allegedly ossified years of our sample. The increase in FWS rulemaking is particularly striking. In the 1980s FWS was regularly issuing over 50 NPRMs and a similar number of final rules per year, compared to approximately 15-20 NPRMs and final rules, on average, in the 1960s. On the other hand, we see that BIA experienced a noticeable decrease in regulatory activity in the 1980s. BIA was issuing between 20 and 25 NPRMs per year in the 1970s but in recent years has tended to issue well below 15 NPRMs per year.

Table 1 presents a final way of looking at the data on NPRM and final rule volume. We calculated average annual NPRM and final rule activity for the pre-ossification and post-ossification periods for all 17 Interior agencies plus for the Department as a whole. Here we operationalize “pre-ossification” as the years 1955-1975, and “post-ossification” as 1976-1990. We omit data from 1950-1954 given the evidence, discussed above, that Interior did not make a serious effort to comply with APA notice-and-comment requirements until the mid-1950s.

The first line in the Table shows that Department-level NPRM and final rule production increased by over 50% from the first to the second period. Agency performance is varied, though only three agencies out of the nine in existence across the two periods show a decrease in activity: BIA, NPS, and BOM. BIA’s average annual NPRM production dropped by 28% and its final rule production by 36%. NPS suffered declines of 20% and 19%, respectively. BOM saw its regulatory program almost entirely collapse in the later period, issuing just three NPRMs in the 1980s. On the other hand, FWS increased its rulemaking activity by over 170%, while BLM saw more modest but still impressive increases of over 34% and 47%. Smaller agencies, such as GES and the Office of the Secretary also increased their regulatory activities significantly, though the level of activity remains quite low in absolute terms, with these two agencies proposing and promulgating just a handful of rules per year in the later period.

The most basic implication that we might draw from Table 1 is that ossification, as measured by the volume of rulemaking, is not an obvious, widespread problem at Interior. A few agencies propose and promulgate fewer rules per year, on average, than they did prior
to the emergence of the hard look doctrine. On the other hand, the majority of agencies seem to regulate more frequently. Furthermore, the significant year-to-year, within-agency variation in rulemaking activity illustrated in Figures 3 and 4 suggests that even though some agencies may on average propose and promulgate fewer rules than in the past, they remain capable of periodic bursts of activity at levels roughly commensurate with past practice.

C. Explanations of Trends

What explains the agency-level trends illustrated in the Figures and the Table? In some cases, the story may be a simple one of changing agency mandates (or, change in congressional demand or support for regulation). Take BOM. The Bureau issued relatively few rules up through the 1960s. However, in a dramatic burst of activity, BOM issued 11, 21, and 12 NPRMs in 1970, 1971, and 1972, respectively. In earlier years BOM typically issued just three or four NPRMs per year. The impetus for this upswing in activity was most likely the Federal Coal Mine Health and Safety Act of 1969, a statute passed, in part, in reaction to the well-publicized 1968 Farmington Mine explosion, in which 78 miners died. Section 101(a) of the Act gave the Secretary of the Interior a broad mandate to “develop, promulgate, and revise, as may be appropriate, improved mandatory safety standards for the protection of life and the prevention of injuries in a coal mine.” However, in 1973, amid continued congressional concern about BOM’s ability to adequately regulate mine health and safety, the Bureau’s health and safety portfolio was trans-

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135 Schiller similarly suggests that increases in rulemaking activity in the 1970s were due in part to congressional expansion of agency jurisdiction. Schiller, supra note 49, at 1148.


FERRED TO THE NEWLY CREATED MINING ENFORCEMENT AND SAFETY ADMINISTRATION (CODED AS “MES” IN OUR DATABASE). \(^{138}\) IN 1974, CONGRESS TRANSFERRED BOM’S RESPONSIBILITY FOR MINERAL FUELS RESEARCH AND DEVELOPMENT TO THE ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION. \(^{139}\) AND THE 1977 FEDERAL MINE SAFETY AND HEALTH ACT FURTHER CONSOLIDATED RESPONSIBILITY FOR MINE REGULATION WITHIN THE DEPARTMENT OF LABOR. \(^{140}\) BOM LIMPED INTO THE 1980S WITH ITS RESPONSIBILITIES LARGELY RESTRICTED TO MINE-RELATED RESEARCH AND FACT-FINDING. \(^{141}\) AND IN 1995 CONGRESS ABOLISHED THE BUREAU IN ITS ENTIRETY. \(^{142}\)

ON THE OTHER HAND, EXPANDED REGULATORY MANDATES CAN LEAD TO MEASURABLE INCREASERS IN ACTIVITY. HERE, FWS IS THE CLEARTEST EXAMPLE. IN DECEMBER 1973 THE ENDEARING SPECIES ACT ENTERED INTO FORCE. \(^{143}\) THE ACT ASSIGNS TO FWS THE PRINCIPAL ADMINISTRATIVE ROLE IN DECIDING WHETHER PARTICULAR SPECIES WILL ENJOY FEDERAL PROTECTION. FIGURE 5 ILLUSTRATES HOW DRAMATICALLY THE ESA HAS IMPACTED FWS ACTIVITIES. THE FIGURE BREAKS OUT POST-1974 NPRM AND FINAL RULE ACTIVITY IN FWS BY REGULATORY SUBJET MATTHER. \(^{144}\) WE SEE THAT IN THE LAST FIVE-YEAR PERIOD OF STUDY ESA REGULATIONS RELIABLY COMPRISED THE MAJORITY OF FWS SECTION 553 ACTIVITY. AT THE SAME TIME, NON-ESA RULEMAKING REMAINED RELATIVELY STEADY, FLUCTUATING SINCE 1975 AROUND APPROXIMATELY 16 NPRMS AND FINAL RULES PER YEAR. THIS MAY SUGGEST THAT FWS HAS BEEN RELATIVELY SUCCESSFUL AT PROTECTING ITS NON-ESA REGULATORY CAPABILITIES DESPITE THE INCREASED RESOURCE DEMANDS THAT THE ACT IMPOSES UPON THE SERVICE.

WE ARE ONLY ABLE TO OFFER RELATIVELY AD HOC AND SOMewhat SPECULATIVE EXPLANATIONS OF THE BIA PATTERNS, BUT THEY TOO SEEM LIKELY TO REFLECT CHANGING CONGRESSIONAL DEMAND FOR REGULATION. BIA POLICY WAS THE SUBJECT OF MAJOR POLITICAL CONTROVERSY IN THE 1970S. \(^{145}\) CON

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\(^{138}\) Secretary’s Order No. 2953, Dep’t of the Interior (May 7, 1973).
\(^{142}\) See 26 ENV’T REP. (BNA) 1379 (December 8, 1995) (noting BOM’s closure).
\(^{144}\) We counted an entry as an ESA rulemaking if the Federal Register listed 50 C.F.R. pt. 17 (“Endangered and threatened Wildlife and Plants”) as the section of the Code affected by the action.
\(^{145}\) Indeed, in 1969 American Indians forcibly occupied Alcatraz Island. In 1972, members of the militant American Indian Movement (AIM) seized Interior’s D.C. headquarters in 1972, and AIM followers occupied the town of
Congress passed a number of important statutes that fundamentally altered BIA’s regulatory relationship with the various tribes, such as the Indian Self-Determination and Education Assistance Act of 1975 (ISDEAA)\textsuperscript{146} and the Indian Child Welfare Act of 1978 (ICWA).\textsuperscript{147} By the late 1970s, Congress’s appetite for forcing change upon BIA had abated substantially,\textsuperscript{148} and in the 1980s Congress largely ignored the Bureau. Our figures may reflect both a flurry of regulatory activity designed to implement the new legislation, as well as a sort of reversion to the mean, or to a new regulatory equilibrium, in the 1980s where public and congressional agitation for BIA reforms had diminished substantially.\textsuperscript{149}

Figure 6 provides some support for this notion that congressional demand for regulations at least partially drives the macro-trends illustrated above. In the Figure we plot the annual number of mentions of each of our four main agencies in the congressional record, the official record of congressional proceedings and debates. Figure 6 represents, in a sense, the amount of attention that Congress is paying to each agency. We might reasonably assume that the more


\textsuperscript{149}It is also probably relevant that the ISDEAA has served to lessen BIA involvement in tribal affairs by allowing tribes to undertake, via contract, projects and programs that previously would have been performed by BIA, and that the ICWA granted tribes and state courts exclusive jurisdiction over adoption matters. The two acts thus served to reduce the size of BIA’s “to do” box, and may, as a consequence, have reduced its need to issue regulations over the long term, at least once the acts was more or less fully implemented. In fact, the BIA interpreted the ICWA as largely precluding the Bureau from issuing legally binding regulations given that the ICWA grants primary responsibility for implementation and enforcement to tribes and state courts. 44 Fed. Reg. 67584 (Nov. 26, 1979).
attention Congress is paying, the more it is likely to desire—and to
informally or formally command—the particular agency to change
the ways in which it operates or regulates. We see that congressional
attention to BLM remained relatively constant over the late 1970s and
1980s, just as the level of BLM regulatory activity remained relatively
constant over that period as well. Attention to FWS rose significantly
in the 1980s, in line with the Service’s increase in ESA-related rule-
making. On the other hand, congressional attention to BIA was at an
historical ebb over the 1980s, mirroring BIA’s historically low levels
of rulemaking. Attention to NPS also ebbed in the late 1970s and
early 1980s, picking up again only at the tail end of our dataset, a pat-
tern that may explain the decline in NPS rulemaking in the later pe-
riod.

Variations in agency productivity may also be explainable on
the basis of agency budgets. Figure 7 shows trends in agency outlays
since 1962, expressed in constant dollars. We see that outlays at
BIA and NPS have both declined significantly since the mid-1970s. In
the case of NPS, the reduction in outlays is quite dramatic. On the
other hand, FWS and BLM saw increases in budget outlays. Perhaps
not coincidentally, BIA and NPS saw declines in NPRM in final rule
volume, while FSW and BLM saw increases in productivity.

VI. REGULATORY SUCCESS RATES

One potential consequence of ossification is that agencies will
abandon their regulatory proposals at an increased rate. An agency
may be uncertain about the level of public support for a given pro-
posal, or may mistakenly view a proposal as uncontroversial. The
NPRM process alerts opponents to the proposal, giving them a
chance to mobilize, to communicate their dissatisfaction to the
agency, and to implicitly or explicitly threaten to challenge the
agency policy in court if the policy is promulgated. Faced with the
daunting prospect of overcoming hard look review, the agency may
consider it wiser to simply abandon the rulemaking rather than to
incur the costs of defending its efforts in court. Similarly, OMB re-
view may lead agencies to withdraw proposals in the face of unan-
ticipated White House opposition.

150 Agency budget numbers come from OMB’s Presidential Budget as compiled
by www.TruthandPolitics.org (accessed June 18, 2010).
To test this possibility we examined the rate at which NPRMs fail to become promulgated as final rules. We compare these NPRM “success rates” in the pre- and post-ossification periods, which we operationalize as 1950-1975 and 1976-1990, respectively. We counted an NPRM as failed if we were unable to locate an associated final rule in the Federal Register or if we found evidence that the NPRM had been formally withdrawn. Agencies sometimes report the withdrawal of a proposal through an announcement in the “proposed rules” section of the FR or through an entry in the Unified Agenda. However, in many cases agencies fail to issue notice that a rulemaking has been abandoned, and NPRM failure must be inferred from the lack of a published final rule.

Figure 8 plots success rates for the Department as a whole and for the four main agencies. The figure shows a remarkable stability in rates across the two periods. The Department finalized nearly 89% of its NPRMs in the pre-ossification period, and nearly 88% in the post-ossification period. BLM and NPS both enjoyed success rates of over 80% in both periods, and FWS, of over 90%. BIA was the only major agency to see its success rate decline noticeably—from 89% to a still-impressive 78%.

In short, Figure 8 provides little evidence that ossification has caused agency proposals to fail or to be withdrawn at a higher rate than in the past. Agencies appear able to push virtually all of their NPRMs through to promulgation. Of course, it may be that agencies rationally anticipate the effects of ossification on certain would-be proposals, and decide to forgo issuing controversial NPRMs. We are unable to test the existence of this sort of selection effect. However, these results, in combination with our findings on regulatory volume, do not suggest that rulemaking came to a dramatic halt as a result of the accretion procedural hoops and hurdles imposed by the courts, White House, and Congress in the mid to late 1970s.

151 On the other hand, where an NPRM is revised and re-issued as a new NPRM, we do not count the revision as a “failure” of the original proposal. For most revisions, we elected to retain the original NPRM in our dataset, and to match any final rule to the original proposal. See supra note 122.

152 We allowed the final rule up until 2009 to materialize.

153 The decline in BIA’s success rate was driven in part by the failure of a group of six NPRMs, all issued on September 13, 1982, to be promulgated. The NPRMs in question concerned the implementation of various aspects of the Indian Self-Determination Act.
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VII. DELAY IN REGULATION

Our third test of the ossification thesis is a comparison of the time that it takes agencies to move rules from proposal to promulgation. To do so, we calculated the number of days elapsing between the date of publication of each NPRM and its final rule, and compared whether NPRMs in the ossified period take significantly longer to promulgate than did proposals from the earlier period. Here we find the strongest evidence of a potential shift in the character of rulemaking.

A. Delay in Regulation: A Departmental View

Figure 9 presents a Department-level view. The figure shows a Kaplan-Meier (KM) survival estimate of the time (in days) from proposal to final rule. The KM estimator shows the percent of total units of observation (here, NPRMs), “surviving” up to a particular point in time. KM analysis is routinely used in epidemiological research, where one group of patients may be given treatment “X” while another is given treatment “Y,” and the rates of survival of the members of each group are compared. In that example, “survival” is, quite literally, a matter of life and death. For us, “survival” means that an NPRM has been issued but has not yet resulted in a final rule. A rule “dies” when it is published in final rule form. Our two groups of patients are NPRMs issued in 1975 and before, and those issued in 1976 and after. Our “treatment,” then, is the period in which an NPRM is issued.

154 Statistical programs such as Stata, which we used for most of our data analysis, allow the researcher to easily calculate elapsed days between two calendar dates.
155 We follow the ossification literature and focus on the time to rule promulgation between the NPRM issuance and final rule promulgation. However, it is also important to acknowledge that agencies also invest time, effort, and resources during the pre-proposal stage of regulatory development. We discuss this fact as a weakness of our study in the Article’s final Part. On pre-NPRM rule development, see Cornelius M. Kerwin & Scott R. Furlong, Time and Rulemaking: An Empirical Test of Theory, 2 J. PUB. ADMIN. RES. & THEORY 113 (1992); Keith Naughton et al., Understanding Commenter Influence During Agency Rule Development, 28 J. POL’Y ANALYSIS & MANAGEMENT 258 (2009).
One advantage of the KM methodology is that it is able to incorporate data from “censored” observations. A censored observation is, for instance, a patient who enters a medical study after the study has been started (left-censoring) or a patient who drops out of a study (other than by dying) prior to the study’s completion (right-censoring). It may be possible to conceptualize withdrawn rules as right-censored data. In that case, we would include withdrawn rules as surviving until the point at which they are withdrawn, but without the withdrawal counting as a death. However, because agencies do not reliably report NPRM withdrawals, or do not report specific dates of withdrawal where, for instance, the withdrawal is mentioned in a subsequent NPRM, we elected to exclude withdrawn rules from our analysis. This means that our KM data contains no censored observations.

For ease of presentation, we have included in Figure 9 two vertical reference lines corresponding to 365 days (one year) and 730 days (two years). The black curved line corresponds to pre-ossification NPRMs, while the curved dashed line corresponds to NPRMs from the ossified era. The figure indicates that NPRMs in the later period take noticeably longer to be promulgated. For example, in the pre-ossified era, approximately 80% of NPRMs were promulgated within roughly 200 days. (This is indicated by the fact that the black curved line crosses the 0.20 mark on the y-axis at around 200 days, indicating that 20% of the NPRMs in the grouping are still “surviving” in the sense having not yet been promulgated). By the one-year mark, approximately 90% of NPRMs have been promulgated. In contrast, in the post-1975 period, only approximately 40% of rules are promulgated within 200 days, and 65% within one year. It takes roughly two years for 90% of NPRMs to be finalized in the later period. A log-rank test (a standard statistical test used to compare the survival distributions of two samples) indicates that the difference in survival rates across the two periods is statistically significant.

B. Delay in Regulation: An Agency-level View

Figure 10 shows KM estimates for our four main agencies. Overall, we see the same trend evident in the department-level data. In the modern era it takes longer for proposals to become final rules, though we also see important differences across agencies. For example, even in the ossified era, about 80% of BIA’s proposals become fi-
nalized within one year, while for the other three agencies about 60-65% are finalized within the same time span. In contrast, in the pre-ossified era the agencies all saw finalization rates of approximately 90% or more at the one-year mark. In the modern era, agencies don’t reach the 90% mark until roughly two years after the NPRM has been published.

As might be expected, the increase in time to promulgation of FWS NPRMs is driven in large part by FWS’s ESA-related rulemaking. Figure 11 compares survival estimates for ESA and non-ESA FWS NPRMs from 1974-1990. We see that even in the ossified era, virtually all FWS non-ESA NPRMs are promulgated within one year. On the other hand, at the one-year mark a bit less than 60% of ESA NPRMs are promulgated, with about 85% promulgated within two years. This may be because ESA regulations can be highly politically charged or because FWS determinations of the need for protected status depend on the collection and analysis of potentially complex scientific evidence. While FWS undoutedly undertakes significant data collection and analysis prior to issuing an NPRM (and thus prior to the start of our duration analysis), data-collection and analytic demands may remain high even after an NPRM is issued if, for example, FWS has to respond to sophisticated public comments as a part of the promulgation process.

C. Delay and The Problem of Baseline Expectations

Does our department and agency level evidence of increased delay in regulation provide evidence of ossification? If the ossification thesis is primarily a descriptive claim that rulemaking in the modern era takes longer than in the past, then the answer is certainly “yes.” A lower percentage of rules in the later period were promul-

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156 In a study of delay in ESA rulemaking, Amy Ando notes that many ESA actions are subject to statutory deadlines. Unless it receives an extension, FWS must either withdraw or promulgate certain listing rules within one year of NPRM issuance. Amy Whitenour Ando, Waiting to be Protected Under the Endangered Species Act: The Political Economy of Regulatory Delay, 42 J.L. & ECON. 29, 33 (1999). Our dataset does not differentiate between those ESA rules subject to this kind of deadline and those that are not. However, the fact that fewer ESA-related regulations are promulgated within one year (compared to non-ESA regulations issued either by FWS or by other Interior agencies) suggests that it may be relatively costless for FWS to miss the one-year deadline (or too difficult for FWS to meet it).
gated within 200 days (or 365 days, or 500 days) of proposal. On the other hand, if the ossification thesis is primarily a normative claim that rulemaking in the modern era takes “too long,” then these results may not justify serious concern. In large part the issue is one of proper baseline expectations. How do we know if a rulemaking is taking “too long”? By what normative metric do we measure and compare length?

We can turn to the ossification literature itself for a sense of proper baseline expectations. For instance, McGarity notes that when the Federal Trade Commission (FTC) first began issuing universal rules in 1962, “it generally took one to two years from the promulgation of a notice of proposed rulemaking to a final rule,” and he implies that this is a reasonable amount of time for rule promulgation. He notes in contrast that in the ossified period it might take five years for an average rule to reach completion, a timeline that he finds troubling. We can use these two observations to construct a rough rule of thumb: we might reasonably consider rulemaking to be ossified if most rules take longer than two years or more to complete; and we would certainly consider rulemaking to be ossified if a significant number of rules took five years to complete. The fact that the majority of rules in our dataset are promulgated within one year, and the fact that the vast majority are promulgated within two years, thus suggests to us that that there is little evidence that ossification is widespread. Indeed, in our dataset very few rules take longer than five years to reach promulgation. Even if we adopt a more relaxed definition of presumptively ossified rules—say, rules that take 1000

157 McGarity, supra note 13, at 1388.
158 In his treatise, Pierce asserts that because of increased court oversight, “It is not uncommon for a single rulemaking to require a decade and commitment of 10 percent of an agency’s total staff resources.” PIERCE, supra note 23, at 511. Ten years—Pierce’s decade—might thus serve as a rough indication of an ossified rulemaking, though none of the NPRMs in our dataset take ten years or more to advance through the notice-and-comment process.
159 In our dataset we identified only 17 NPRMs that took at least five years to be finalized (“five-year rules”). This is less than one percent of the total final rules in our dataset. BIA promulgated the largest number of five-year rules (five cases). FWS promulgated the second largest number (four cases). BLM promulgated three five-year rules. The subject matters of the five-year rules do not stand out as being particularly atypical. The BIA rules concerned employment assistance and vocational training for adult Indians; the BLM rules concerned leasing and permitting on federal lands; all four FWS rules were ESA related. Two of the FWS regulations dealt with critical habitat designations, one concerned a “threatened” classification; and one concerned an “endangered” classification).
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days or more to be promulgated—few rules in our dataset meet even that less stringent criteria. \[160\]

A different way to approach the issue of rule promulgation time is to concentrate on balancing the costs and benefits of “rule delay.” As Thomas Morgan argued in one of the first law review articles to address in depth the problem of regulatory delay, the regulatory process is characterized by an inherent and perhaps insoluble tension between the “desire for speed and the equally important interests in due process and substantively sound results.” \[161\] Perhaps rulemaking in the pre-ossified period struck a balance undesirably tilted toward the former. In other words, perhaps early rulemaking moved too fast, while in the late 1970s and 1980s rulemaking proceeded at a more welcome, if more leisurely, pace.

That possibility is one that we cannot test with our data, but we can begin to assess whether agencies in the later period expended greater effort explaining and justifying their actions. To do so, we compared the number of words contained in a typical NPRM in the pre-ossified period with a typical NPRM in the post-1975 years. We counted NPRM words for all of the NPS proposals in our dataset. \[162\]

The mean for the early period is 1161 words; the mean for the later period is 3206 words, an increase of 176%. A reasonable interpretation of the increase is that NPS, like other agencies, is better at explaining its intentions, a fact that probably helps the public provide useful comments to the agency regarding the wisdom or foolishness of its plans. We see a similar increase in the amount of words in NPS final rules, from a mean of just 849 to a mean of 4014.

Some of that increase is due to the fact that agencies in the ossified period must respond in the final rule preamble to public comments submitted in response to the NPRM. \[163\]

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\[160\] We identified 77 rules that took 1000 days (2.8 years) to be promulgated—just three percent of all final rules.


\[162\] We counted NPRM and final rule words by cutting and pasting each rule into Microsoft Word and running Word’s word-count function. Because this exercise was extremely time-consuming, we focused our word-counting efforts exclusively on NPS. However, we did sample word-counts of NPRMs issued by other Interior agencies, and we are quite confident that the other agencies would also show a marked increase in NPRM and final rule word count across the two periods.

\[163\] It is sometimes suggested that agencies are required to respond to every comment submitted to them. In fact, as Judge Wald notes, courts have only required agencies to respond to all “material” comments, and agencies reserve
are almost comically brief in responding to public comments. For example, a typical final rule (here, from 1959) might recite that “Consideration having been given to all relevant matters presented, it has been determined that the following proposed amendment shall become effective upon publication in the FEDERAL REGISTER.”\footnote{\textit{National Park Service, Final Regulation Concerning Zion and Bryce Canyon National Parks}, 24 Fed. Reg. 6977 (Aug. 28, 1959).} Note that in this example (of an actual final rule preamble) we do not know if any relevant or non-relevant matters were even presented, nor, if they were, what the matters entailed, nor how the matters presented might have been incorporated into the final rule. Compare that 1959 rule to a 1986 NPS rule concerning structure and sign limitations in Washington, D.C.’s Lafayette Park; there, the NPS included in the final rule preamble a nearly 6000-word summary and response to the various comments received, in addition to another 6000 words of summary of the regulation’s history and a justification of the final rule adopted.\footnote{\textit{National Park Service, Final Rule Concerning National Capital Parks Regulations}, 51 Fed. Reg. 7566 (Mar. 5, 1986).}

Put somewhat differently, even if it is true that the increased delay in rulemaking that is illustrated in Figures 9-11 is due in part to the fact that agencies now feel compelled to describe their proposals in relative detail, and to respond to public comments in relative depth, it is also important to consider that perhaps the quality of the rulemaking process, the transparency of agency policymaking, and the ability of third parties to hold agency officials accountable for their decisions, has improved as well.

\section{Use of Non-Rule Rules}

The ossification literature suggests that agencies have begun turning to non-rule rules as substitutes for Section 553 rulemaking. In fact, observers of Interior’s practice have long suggested that the Department at least occasionally resorts to press releases and other “informal” policy pronouncements to accomplish regulatory goals that
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might more properly be accomplished through notice-and-comment.\textsuperscript{166}

Unfortunately, systematically tracking changes in the use of these non-rule rules poses significant challenges, especially (but certainly not exclusively) for historical studies such as this one. Agencies have at their disposal a variety of different instruments through which they may seek to influence the behavior of both agency personnel and regulated persons and entities in law-like ways, including, for example, policy statements, amendments to agency and departmental manuals, interpretative rules, and even news releases and speeches. No single source tracks agency use of such policy instruments. Accordingly, our test of this aspect of the ossification thesis is necessarily preliminary, as we are by no means capturing the entire universe of potential non-rule-rules.

As a first cut, we used Westlaw to compile an annual agency-level count of all regulations listed in the “Rules and Regulations” section of the Federal Register that did not result from a notice-and-comment process. We call these statements of agency policy “no-comment regulations.” Sample search language is provided in the footnotes.\textsuperscript{167} In order to influence behavior, the content of non-rule rules, like the content of Section 553 rules, must be communicated to the intended subjects of regulation. The Federal Register provides an

\textsuperscript{166} John A. Carver, Jr. & Karl S. Landstrom, Rule-making as a Means of Exercising Secretarial Discretion in Public Land Actions, 8 ARIZ. L. REV. 46, 56-57 (1966) (noting Interior’s “uncounted numbers of interpretative and procedural rules, established in case decisions and inter-office correspondence, [that] exist without having been incorporated into the regulations,” and observing that “Resort has sometimes been had to informal ‘policy’ pronouncements have the effect of formally exercised legislative discretion,” and citing as an example a press release). Both Carver and Landstrom were high-level employees in Interior.

\textsuperscript{167} To identify no-comment regulations we ran variations on the following search of Westlaw’s FR-ALL database: da(1950) & pr(“park service” & “rules and regulations” % correction) % (comment! “interested persons” “interested parties” “public land order”). In our main coding exercise we observed that virtually all final rules resulting from Section 553 NPRMs referenced either some variation of the word “comment” or “interested persons” or “parties,” as in the phrase “interested parties were invited to participate,” while non-Section 553 documents in the “Rules and Regulations” section do not. We excluded “corrections” from our count of no-comment regulations because corrections appear to typically involve only minor, technical changes to existing rules. We excluded “public land orders,” which are issued exclusively by BLM, as a unique type of regulatory instrument that is probably not a good example of the kinds of non-rule-rules with which the ossification literature is worried.
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efficient and effective mechanism for agencies to communicate their regulatory expectations, and it may be the case that agencies have retreated from notice-and-comment regulation not surreptitiously, but openly through the publication of self-styled “rules and regulations” that have, nonetheless, not been subject to required notice-and-comment procedures.

Figure 12 presents an annual count of no-comment regulations for BIA, BLM, and NPS. We also include data for the Bureau of Reclamation (BOR) in order to provide visual symmetry to the graph. Figure 13 presents the same data for FWS. We present FWS separately because differences in scale make it difficult to combine a visual representation of the FWS data with data from the other three major agencies. Figures 12 and 13 show no obvious upward trend in the use of no-comment regulations. Indeed, if there is an overall trend, it is one of relative stasis or even decline. Agencies do not seem to issue noticeably more no-comment regulations than they have in the past. In the case of NPS and FWS, they issue dramatically fewer.

The FWS data shows the results for two versions of our basic search. The first, labeled “Search 1,” is the equivalent of the searches whose results for the other agencies are displayed in Figure 12. The dramatic upswing in FWS’s use of no-comment regulations in 1960 is the result of FWS’s implementation of CFR Title 50, through which the Service required itself, by regulation, to promulgate national wildlife refuge- (NWR-) specific seasonal hunting and fishing regulations on an annual basis. The Service referred to these regulations as “special regulations,” though in practice they represented a routine and recurring occurrence, with each NWR receiving its own annual set of regulations. FWS did not regularly solicit public input on NWR special regulations until 1977, when it began inviting comments. FWS special regulation practice remained unstable until the early 1980s, when the Service decided that the annual publication of refuge-specific regulations had become too administratively costly. In 1982 the Service issued an interim special regulation, subject to public comment, ending the practice of issuing annual refuge-specific regulations, and setting out a stable set of guidelines linked to state hunting seasons.168 The interim scheme was replaced by a permanent scheme in 1984 (for hunting) and 1985 (for fishing).169 The

168 47 Fed. Reg. 40,298 (Sep’t 13, 1982).
dotted line in Figure 13, labeled “Search 2,” tracks no-comment regulations excluding special regulations. In either case, we see that the level of FWS no-comment regulations has remained quite low since the mid-1970s. FWS does not appear to be using no-comment regulations to replace Section 553 rulemaking. Indeed, its abandonment of the administratively burdensome special regulation regime may have been driven, in part, by a desire to increase agency capacity to implement the Service’s newly expanded notice-and-comment portfolio under the ESA.

Figure 14 illustrates the number of news releases issued by FWS over time. The data are taken from the FWS website. Again, we see no wholesale flight to non-rule rules. While FWS use of news releases did spike up in the last half of the 1970s, it also declined to historic lows in the 1980s. And in any case, the number of news releases in the post-ossification period is substantially below levels in the 1950s. Figure 12 does not provide a strong case for ossification.

For Figure 15 we compiled annual counts of DOI adjudicative decisions and solicitor’s memorandum opinions published in “Interior Decisions” (ID). ID is an annual publication containing the year’s substantively important Interior decisions and opinions, as identified by the Department. Because ID is widely available to legal practitioners and industry, it serves as one of the most important ways in which Interior might communicate to regulated parties changes in Interior’s views of its governing statutes or existing regulations. It is conceivable that as rulemaking grows more difficult, Interior might increasingly turn to administrative adjudications (decisions) to announce important policy changes, or increasingly rely on solicitor’s opinions (which are legally binding on Department employees) to expand or contract regulatory programs. However, Figure 15 does not suggest much support for this proposition. While we see noticeable peaks in important decisions in the 1970s, as well

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171 Parriott indicates that the “general criteria for publication of an opinion or decision [in Interior Decisions] is whether or not it is thought to establish new or important points of law, or to overrule or modify previous decisions or rulings.” James D. Parriott, The Administrative Procedure Act and the Department of the Interior, 4 ROCKY MTN. MIN. L. INST. 431, 437 (1958).
172 Cf. Magill, supra note 46; M. Elizabeth Magill & Adrian Vermeule, Allocating Power within Agencies, __ YALE L.J. __ (forthcoming). The solicitor writes opinions in response to legal questions submitted by the Secretary or other department staff. We attempted to compile an annual count of all solicitor’s opinions, and not just those published in ID. However, neither the National Archives nor the Interior library maintains complete collections of opinions.
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as a peak in solicitor’s opinions in 1980, since that time the number of important opinions and decisions has declined significantly to historic lows. Interior does not seem to be using publication in the ID as a substitute for other forms of regulation.

For our final test of the no-rule rules hypothesis, we compiled an annual count of all “orders” issued by the Interior Secretary in a given year. Secretarial orders typically announce temporary or interim policies, changes to Interior’s internal organization, or delegations of the Secretary’s statutory authority to subordinates. For example, the recent decision, taken in response to the Deepwater Horizon oil spill, to transform the Minerals Management Service into the “Bureau of Ocean Energy Management” was accomplished via Secretarial order. As rulemaking becomes more difficult, the Department may be increasingly tempted to substitute orders for notice-and-comment regulations.

In fact, Figure 16 does not contain much evidence that this has happened. The graph shows the annual number of orders (the solid line), amendments to existing orders (the dashed line) and a combined total of the two (the dotted line). Interior sometimes chooses to amend an existing order rather than to revoke an earlier order and to replace it with a new order. In our readings of the documents, it does not appear that the content of amendments generally differs much from the content or orders, but we nonetheless report the two series separately. We see a relatively consistent order practice; since the late 1950s, the Department has tended to issue twenty or fewer orders and amendments per year, a marked decline from order practice in the early 1950s. We certainly see no obvious increase in resort to orders in the post-ossification period. Indeed, in the last few years of our dataset the Department was issuing only around ten orders and amendments per year.

To sum up this section, we find no obvious evidence that Interior has turned to non-rule rules as a substitute for notice-and-comment rulemaking. Rates of no-comment regulations are declining, as is FWS issuance of news releases. Interior does not publish

173 Secretary’s Order. No. 3299A1, Dep’t of the Interior, June 18, 2010.
174 While we did not do any formal content analysis of Secretarial Orders, we did read or skim a great deal of them in the course of our counting. Our impression is that most, if not virtually all, concerned internally oriented subjects (delegations of authority, internal reorganizations and the like) that we would normally not expect to be promulgated through notice-and-comment. We did not see any Orders that appeared to be blatant violations of notice-and-comment norms.
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and publicize as many important decisions and solicitor’s opinions as it used to publish, and the Secretary’s order practice shows long-term stability at a relatively low level of activity.

IX. IMPLICATIONS

Ossification-like concerns with the administrative process are nothing new. Since the early days of the APA, scholars have worried that agencies may face disincentives to follow normatively desirable notice-and-comment procedures. Complaints about undue delay in agency action are also longstanding, as are complaints about the

175 David L. Shapiro, The Choice of Rulemaking or Adjudication in the Development of Administrative Policy, 78 Harv. L. Rev. 921 (1965) (discussing and explaining the “failure” of federal agencies “to make full use of available [notice-and-comment] rulemaking procedures”). Shapiro suggests that one reason is that agencies fear that notice-and-comment rules are more likely to be overturned by reviewing courts than are policies announced through other mechanisms. Id. at 942-46. Shapiro also accuses agencies of resorting to non-rule rules. Id. at 922-23 (noting that “speeches and press releases are frequently resorted to for the announcement of important policies or views”). On the other hand, Fisher, writing in 1965, asserted that “there is little evidence of widespread failure by agencies to take advantage of their rule making powers. On the contrary, most agencies make good use of rule making. Failure to more generally embrace rule making is usually readily explained, though perhaps not wholly justified.” Fisher, supra note 46, at 252.

176 In a 1960 speech to the Columbia Law Review, Judge Friendly wondered “whether law students are still taught, as we were, to contrast the celerity of those Mercury-like and wing-footed messengers, the administrative agencies, with the creeping and cumbersome process of the courts. If they are, they have a rude awakening ahead, on both counts. To borrow Mr. Churchill’s phrase, the regulatory agencies often tolerate delays up with which the judiciary would not put.” Henry J. Friendly, A Look at the Federal Administrative Agencies, 60 Colum. L. Rev. 429, 432 (1960). Judge Friendly blamed such delay, in part, on his perception that “agencies have gone overboard in their zeal for a record that will drain the last dregs from the cask—and sometimes a good many staves as well.” Id. at 435. While Judge Friendly’s observations about the relationship between regulatory delay and the burdens of creating an extensive justificatory record were aimed primarily at rulemaking by adjudication, his complaints certainly presage later complaints about notice-and-comment. For another early and prominent complaint that procedural constraints impeded agency ability to regulate, see Louis J. Hector, Problems of the CAB and the Independent Regulatory Commissions, 69 Yale L.J. 931, 935 (1960) (“Because the procedures for making policies and plans in an independent commission are so inefficient, [policies and plans] are often not formulated in time and in some cases not at
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use of non-rule-rules. Such complaints have been made specifically as to the Department of the Interior, and even by the Department of the Interior. In 1967 an undersecretary in the Department argued in congressional testimony that the notice-and-comment process was so burdensome that Interior should be largely exempted from Section 553’s requirements:

Is the public really better served through the medium of notice of rulemaking and publication in the Federal Register in every instance of the formulation of a statement of policy? What effect would such a requirement have on the operations of a program agency? Do we want to take the chance of subjecting much of the informal policy making that we do today on a daily basis to the potential of interminable delays? Can our programs afford these delays? Even

all.”). Judge Friendly and Hector were complaining about the slow pace of rulemaking via adjudication, and they both viewed greater use of notice-and-comment rulemaking as a potential solution. Schiller, supra note 49, at 1150.

But despite this early optimism about the ability of notice-and-comment to promote the more efficient production of regulations (not to be confused with the production of more efficient regulations), perceptions of unacceptable regulatory delay in the notice-and-comment system remained widespread throughout the 1970s. Thomas D. Morgan, Toward a Revised Strategy for Ratemaking, 1978 U. ILL. L.F. 21, 21-22 (1978) (“A remarkably diverse group of citizens and political leaders, business executives and consumer advocates, economists and lawyers seems to agree on a fundamental point—something is wrong with much of the substance and procedure of regulation. … [H]igh on the many lists is the complexity of administrative procedure and the sheer time consumed in obtaining action or authorization from an agency.”).

177 Carver & Landstrom, supra note 166, at 57-58 (discussing in a 1966 article Interior’s use of non-rule-rules).

178 Peter L. Strauss, Rules, Adjudications, and Other Sources of Law in an Executive Department: Reflections on the Interior Department’s Administration of the Mining Law, 74 COLUM. L. REV. 1231 (1974) (criticizing the Interior Department’s “excessive reliance upon adjudication rather than rulemaking to make policy”). Strauss also Faults the Department for regulating via employee manuals, “temporary directives,” and Solicitor’s opinions, practices which, he says hamper the ability of Congress to exercise its oversight responsibilities or for private individuals to figure out the content of agency “law.” Id. at 1238. Strauss characterizes the speed of Department rulemaking as “truly glacial” absent the “impetus” of crisis, id. at 1254, while Department adjudications suffered from “oppressive delay,” id. at 1257. See also McCarty, supra note 119, at 170 (noting the “frequent conclusion of commentators on the administrative process…that agencies fail to use rulemaking to the extent that is believed desirable”).
more importantly, will Congress and the public tolerate these delays? We firmly believe that the answer to all of these questions, when carefully analyzed, must be “no”!\textsuperscript{179}

This view of the supposedly burdensome nature of notice-and-comment regulation was shared by other agencies, such as the General Service Administration, which argued that “public advance notice in the Federal Register and public participation in the formulation of...rules is too much, costs too much, takes too much time, for many rules that would not warrant that type of effort.”\textsuperscript{180}

Regardless of whether these assertions were fair or accurate at the time (or whether they might be fair or accurate in later years), it seems clear that the life of a bureaucrat is a difficult one. Politicians, the public, and law professors have long been quick to criticize the regulator for failing to correctly and promptly finish the legislative responsibilities that Congress routinely delegates (or abdicates), just as regulators have long been quick to criticize the regulatory process for unwisely restricting their discretion and autonomy and causing unnecessary delay.\textsuperscript{181} But there is an inherent tension between getting things done right, and getting things done quickly. In more recent years, things seem to take longer. But things may also be more “right” than they otherwise would be.

That last point suggests that the question of whether rulemaking has become ossified is a multi-dimensional one. It requires

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\textsuperscript{179} Quoted in Arthur Earl Bonfield, Public Participation in Federal Rulemaking Relating to Public Property, Loans, Grants, Benefits, or Contracts, 118 U. PA. L. REV. 540, 575-76 (1970). The Department was responding to calls to revise Section 553’s exemption for regulations relating to “public property,” which the Department had long interpreted as applying to its regulations dealing with the public “lands.” See generally id.

\textsuperscript{180} Id. at 576 n.114.

\textsuperscript{181} Cf. Wycliffe Allen, I am a Bureaucrat, 11 PUB. ADMIN. REV. 116 (1951) (“According to both the press and the Congressional Record, I am one who gormandizes at the public trough. I am the incarnation of all the sloths through all the ages. I live off the hard-earned salaries of neighbors and the profits of tax-paying industries. For this parasitical existence, I give, apparently, little value. I am supposed to put in, each day, eight hours of cat naps intermingled with pen-push; I am believed to manufacture red tape in amazing quantities and to protect myself from reformers by means of the greatest lobby in Washington. The movie industry, like the cartoonists, finds me a fit subject for ridicule”). More recently, Reiss has suggested that “Agencies...have been everyone’s favorite whipping boys for at least twenty years, subject to extensive criticism from politicians and citizens.” Reiss, supra note 45, at 373,
us to answer not just whether rulemaking takes longer, but whether the substance of rulemaking has also failed to improve enough to outweigh any detriments of delay or inaction. Our data do not allow for that type of sophisticated weighing. But what we can say with some modest degree of confidence is that agencies—and in particular, the U.S. Department of Interior agencies—do not appear to have abandoned notice-and-comment wholesale, either by failing to regulate entirely, or by embracing surreptitious forms of regulation. NPRMs succeed at roughly the same rate they succeeded prior to the ossification era, and the majority of rules pass through the NPRM process in about a year during the allegedly ossified period of 1976-1990. If the hard look doctrine and other constraints on agency autonomy impose costs, those costs do not seem prohibitively high for the vast majority of rules. Furthermore, there seem to be certain likely benefits to the current regime. Rules take longer, but the public is also probably better informed about the substance of and justifications for agency proposals and final rules. The system as it currently stands appears to us to be far more open and transparent than the system that existed in the 1950s, a fact that most observers would probably view as a normatively positive development.

If we are correct in viewing our evidence as suggesting that ossification is not as problematic as it is sometimes said to be, what might explain the continued willingness of agencies to resort to notice-and-comment, or their ability to push most rules through to completion in relatively little time? Most importantly, it may be the case that the hard look doctrine was never really as “hard” as commonly believed, or that the doctrine atrophied with time, with courts quickly growing weary of second-guessing agency decisions. There is at least some objective evidence that courts have not, in fact, sanctioned agency decisions as frequently or as severely as the ossification literature might lead us to expect. Judge Wald of the D.C. Circuit has suggested that her court was sending back just 22% of challenged agency decisions for “retooling.” Wald’s 22% remand rate should be interpreted in light of the fact that many agency actions are never challenged in court at all, but in any event her calculation is significantly lower than the 50% remand rate suggested by Pierce.182 Furthermore, Wald suggests that “retooling” might entail little more than “fix[ing] up the rationale” of the rule,” an assertion which, if accurate, supports Jordan’s claim that judicial remand often will not meaningfully inhibit the agency’s ability to eventually implement its.

182 Pierce, supra note 53.
desired policy.\textsuperscript{183} Wald further suggests that one of the main problems courts have with agency rules is the failure of agencies to master “basic communication skills, using simple English whenever possible to explain” their actions, a problem which hardly seems insurmountable.\textsuperscript{184}

Richard Pierce has also suggested that the hard look doctrine may have softened over time. In a 1989 article, he argued that the Supreme Court “increasingly has lost trust in...the lower federal courts, to stay within their proper bounds in reviewing agency actions” and that “the Court has responded by adopting [an] approach that insulates areas of agency action from judicial review.”\textsuperscript{185} In a later article Pierce identified “seven doctrinal changes that have the potential to reduce the problem of rulemaking ossification,” including the Supreme Court’s famous \textit{Chevron} decision and the D.C. Circuit’s practice of remand without vacation.\textsuperscript{186} And David Zaring has recently argued that hard look and other standards of judicial review have evolved into a unitary “reasonableness” standard, under which courts affirm challenged agency decisions, on average, more than two thirds of the time, and tend to sanction agencies only for regulatory “negligence.”\textsuperscript{187} The question of why the hard look doctrine may have withered on the judicial vine is beyond the scope of this Article, but one major reason may be that the doctrine proved too hard—

\textsuperscript{183} Wald, supra note 55, at 232, 234; Jordan, supra note 17.
\textsuperscript{184} Wald, supra note 55, at 232. Wald’s observations appear reflected in Interior’s experience implementing the Surface Mining Control and Reclamation Act of 1977. Implementing the Act’s complex scheme of cooperative federalism proved enormously controversial, and OSM suffered through numerous lawsuits by states, environmental groups, and mining companies. While these various lawsuits created significant regulatory uncertainty, and delayed final implementation of certain aspects of the Act for some time, in fact these “numerous court challenges were essentially all unsuccessful.” Edward M. Green, \textit{State and Federal Roles Under the Surface Mining Control and Reclamation Act of 1977}, 21 S. ILL. U. L.J. 531, 540 (1997). And in fact, despite the large amount of litigation over the SMCRA regulations, a Kaplan-Meier analysis of OSM NPRMs and final rules (graph not shown) indicates that OSM was actually quite good at moving NPRMs to the final rule stage, with sixty percent of NPRMs taking just one year, and with over ninety percent of NPRMs reaching finalization within two years. On the other hand, these figures do not take into account any post-final-rule delay associated with court-ordered stays that might delay final implementation of final rules.
\textsuperscript{186} Pierce, supra note 13, at 65-66.
meaning too difficult—for courts to apply, as an early observer of the
doctrine’s emergence has argued and as courts have complained at
least since the mid-1970s.\footnote{William F. Pedersen, Jr., Formal Records and Informal Rulemaking, 85 Yale L.J. 38, 70 (1975) (suggesting that the “unwieldy and disorganized [agency] records created through [the notice-and-comment rulemaking process] must be a plague to the [reviewing] courts” and noting that “several courts have commented adversely on the sheer burden of extra work created” by hard look review); Breyer, supra note 115, at 58-59 (suggesting that courts recognize the potential for judicial review to undesirably delay rulemaking, and that they “therefore hesitate to call agency decisions irrational and [to] set them aside”, a hesitation also informed by the courts’ “crowded…judicial dockets” that prevent them from engaging in thorough review of extensive rulemaking records).}

If the rigors of the hard look doctrine may have been exagger-
erated, so too, perhaps, has the extent to which OMB review neces-
sarily impedes the rulemaking process. For example, in a 1986 article
DeMuth and Ginsburg claim that the “overall average time for regu-
latory review [by OMB] is just 16 days” and that “the vast majority of
proposals and regulations submitted to OMB are cleared almost im-
mediately.”\footnote{Christopher C. DeMuth & Douglas H. Ginsburg, Comment: White House Review of Agency Rulemaking, 99 Harv. L. Rev. 1075, 1088 (1986).} They conclude that the “minor costs resulting from
briefly delaying the implementation of regulations that OMB ulti-
mately approves as cost-effective…are a small price to pay for avoid-
ing the huge costs of issuing ill-considered regulations.”\footnote{Id.}

Our own calculations of the amount of time consumed by OMB review are
greater than DeMuth and Ginsburg’s, but they still suggest that OMB
review is a relatively minor speed bump in the regulatory process: in
an earlier paper, we showed that the average OMB review of an
NPRM took just 38 days to complete under Reagan, and 47 days un-

192 Pedersen, supra note 188, at 59.}

OMB may be both uninterested in and unable to review com-
plex regulations in ways that are sufficient to “catch the technical
errors or errors of details on which the legality and…the wisdom of the
regulations may depend.”\footnote{Pedersen, supra note 188, at 59.} This lack of capacity to conduct mean-
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largely cursory in nature.\textsuperscript{193} Furthermore, agencies may be able to pre-empt meaningful OMB review by delaying submission of a rule for review until just prior to a statutory or court-imposed deadline for promulgation. Elliott describes this tactic as one of “jamming” the review process, with the agency submitting the rule while saying something like “Gee, we would like to change [the rule in response to White House or OMB concerns], but we can’t, we are under a court ordered deadline.”\textsuperscript{194} Or agencies may be able to ignore procedural constraints, or to comply with less than due diligence. For example, Jennifer McCoid has argued that “satisfaction of the [Regulatory Flexibility Act’s] requirements [that agencies analyze the effects of proposed rules on small businesses] largely depends on the good faith and voluntary compliance of each executive agency. Compliance has been sporadic at best, and even the most faithful agencies can avoid the RFA’s requirements when it is convenient for them to do so.”\textsuperscript{195} Neither Congress nor the courts appear willing to sanction non-compliance. Indeed, the RFA and the Paperwork Reduction Act expressly \textit{forbid} judicial review for agency compliance.\textsuperscript{196}

The courts, Congress, and the President may also seek to counteract potential ossification through rule-facilitating procedures. For example, Congress may require agencies to promulgate rules through notice-and-comment, and they may impose regulatory deadlines and “hammers” that spur agencies to act more quickly.\textsuperscript{197}

\textsuperscript{193} However, DeMuth and Ginsburg argue that OMB’s lack of technical expertise does not prevent it from playing a valuable role in the regulatory process. DeMuth & Ginsburg, \textit{supra} note 189, at 1083 (“The OMB staff is rarely able to bring new knowledge of a field to the attention of the agency. Yet the OMB staff is routinely able to ask hard questions, both substantive and methodological, to which an agency should be expected to have good answers before it proceeds to regulate.”).

\textsuperscript{194} Elliott, \textit{supra} note 37, at 10592.


\textsuperscript{197} See M. Elizabeth Magill, \textit{Congressional Control over Agency Rulemaking: The Nutrition Labeling and Education Act’s Hammer Provisions}, 50 FOOD & DRUG L.J. 149 (1995). In an interview with a current (2010) Interior employee who focused on Endangered Species Act regulations, we were told that FWS gives ESA rules subject to court deadlines absolute priority, with the Service making every effort to comply. The employee said that rules with congressional deadlines were also given high priority, but that in reality the Service had some latitude to exceed congressional deadlines without much risk of suffering adverse consequences. This regulatory wiggle room as to congressional deadlines
Courts may also impose deadlines during the course of litigation, and increased OMB involvement in rulemaking may provide the White House with more opportunities to communicate to agencies which rules the White House wishes to see quickly developed and promulgated. Similarly, as Elliott suggests, statutory deadlines may succeed in encouraging agencies to focus their efforts on regulatory initiatives that Congress and the President consider important. On the other hand, he says that deadlines may also cause non-deadlined rules to slip through the regulatory cracks. In other words, deadlines may alleviate ossification as to some rules, but cause other rules to be delayed or abandoned. That possibility may help explain the results reported in our earlier article, where we found that the imposition of procedural constraints by Congress and the President on agency autonomy actually tended to speed up the regulatory process for rules subject to the constraints. In that view, procedural constraints may serve to focus agency energies on rules that the political branches, but not necessarily the agency itself, consider to be most important.

Finally, there may be important impediments to an agency’s ability to regulate to its satisfaction through means other than notice-and-comment, no matter how difficult notice-and-comment may
have become. As Elizabeth Magill has argued, agencies formally enjoy wide latitude to choose between regulatory instruments. The classic choice is between notice-and-comment regulations and rules that emerge from agency-level adjudicatory processes, but as we have discussed above, the ossification literature also encourages us to consider the availability of more surreptitious (and probably illegal) options. However, from the agency’s perspective, these various alternatives may themselves be less attractive than even an ossified informal rulemaking process, either because the costs of the alternatives are particularly high, or because the alternatives fail to provide certain benefits that flow from following notice-and-comment requirements.

For example, formal (adjudicatory) rulemaking may be even more tedious and inefficient than ossified notice-and-comment rulemaking because of the need to hold hearings, take testimony, allow cross-examination, and the like. Indeed, Pedersen has cogently argued that rulemaking via adjudicatory hearings is “self-defeating in complicated regulatory programs” and is generally inappropriate for implementing the expanded regulatory duties of modern federal agencies. The infamous peanut butter rulemaking provides the classic example: through a formal rulemaking process the Food and Drug Administration managed to spend more than ten years (and to compile a hearing transcript of nearly 8,000 pages) settling the not-so-pressing question of the minimum peanut content of “peanut butter.” The peanut butter rulemaking was commenced in 1959, and was not concluded (via a circuit court affirmance) until 1970.

201 Magill, supra note 46.
202 Pedersen, supra note 188 at 44.
203 The peanut butter rulemaking is summarized in Robert W. Hamilton, Rulemaking on a Record by the Food and Drug Administration, 50 Tex. L. Rev. 1132, 1142-45 (1972). As Hamilton notes, the major brands of peanut butter at the time contained peanut content in excess of seventy-five percent. The FDA proposed requiring the substance to contain at least ninety-five percent peanuts.
204 Id. While the peanut butter rulemaking would appear on its face to be an example of the “ossification” of the formal rulemaking process, Hamilton attributes a good portion of the delay to the fact that FDA regulators viewed the peanut butter proposal as relatively unimportant, and failed to prioritize the rulemaking. The observation is an important reminder that agency officials may themselves be responsible, sometimes consciously, for extreme delay in rulemaking. Not all undue delay in regulation is caused by the courts, Congress, and the President. The fact that an agency has proposed a particular regulatory change does not necessarily mean that the agency enthusiastically supports its own proposal.
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Furthermore, agencies generally have much less control over either the initiation of adjudicatory processes that may lead to an opportunity to announce a new formal rule, or over the content of any such announcement that may take place. This is because agency adjudicative dockets are typically driven by challenges to agency actions initiated by regulated persons and entities, and not by the agency itself, and because administrative law judges tasked with pronouncing agency law through adjudications themselves enjoy at least some measure of decisional independence from other agency staff, including from senior policymakers.205 In contrast, the Section 553 process is agency-initiated and, largely, agency-controlled. For those two reasons, notice-and-comment rulemaking is highly likely to be (and to remain) the preferred method of regulation for most agencies (as, indeed, it seems to be).

While rulemaking-via-adjudication may be more procedurally inefficient than even an ossified notice-and-comment process, and while the outcomes of adjudicatory rulemakings may be more difficult for agencies to control, the same cannot be said of non-rule-rules. In theory, non-rule-rules are relatively costless policy instruments. Agencies decided whether to issue them, and they decide

205 See Russel L. Weaver, Appellate Review in Executive Departments and Agencies, 48 ADMIN. L. REV. 251, 273-74 (1996) (discussing decisional independence in Interior adjudications). While federal agency heads typically enjoy formally substantial power to overturn the decisions of administrative law judges, in practice they are often far too busy with other responsibilities to exercise an active review function. Id. at 291. The requirement of decisional independence can be viewed as one rooted in constitutional principles of due process. In the 1970s, Interior revamped its adjudicatory processes to better guarantee decisional independence. See generally Newton Frishberg, Michael C. Hickey, & James R. Kleiler, The Effect of the Federal Land Policy and Management Act on Adjudication Procedures in the Department of the Interior and Judicial Review of Adjudication Decisions, 21 ARIZ. L. REV. 541 (1979). In a detailed critique of Interior adjudication, Strauss also observed that Department leadership did not “contribute significantly” to the formulation of policy through adjudication in mining matters; decisional authority was effectively exercised by the Board of Land Appeals, and the Secretary would, in Strauss’s estimation, be able to intervene in only the most “urgent” cases. Strauss, supra note 131, at 1257-58. He concludes that the “total picture [of Interior adjudication] remains quite different from one’s ordinary expectations about the choice between rulemaking and adjudication. Instead of a single decider, rationally or irrationally allocating choices between the two procedures and itself making the fundamental policy decisions whichever mode is chosen, one finds a frequently unconscious process of allocation and, more important, a process which leads ultimately to different authorities.” Id. at 1258.
their content, with few, if any, externally imposed procedural constraints on the decision-making process. On the other hand, non-rule-rules suffer from a number of disadvantages. The most important is that non-rule-rules are highly unlikely to be granted much, if any, deference by a reviewing court. As part of our larger project, we conducted a series of interviews with current (2010) Interior regulators. We asked those regulators whether they viewed non-rule-rules as a useful substitute for notice-and-comment regulations. None of our eleven interviewees viewed the two policy instruments as substitutable, largely if not exclusively because, from the regulators’ point of view, Section 553 rulemakings were likely to be reviewed highly deferentially by the courts, while non-rule-rules were not. That significantly higher deference flows doctrinally, of course, from *Chevron* and the later *Mead* decision, and the regulators with whom we spoke viewed *Chevron*’s protections as very much worth obtaining.

The use of non-rule-rules to announce important regulatory changes may suffer from a number of other disadvantages compared to notice-and-comment regulation. For example, it may be more difficult for agencies to ensure that all relevant targets of a regulatory change are actually aware of the changes when the changes are not publicized through normal channels, such as through publication in the Federal Register. Not all regulatees may, for example, be aware of a particular speech or news release announcing a major change in policy. These communication difficulties may make at least certain kinds of non-rule-rules relatively inefficient at actually changing the behavior of regulatees.

Similarly, because surreptitious regulation via non-rule-rules is likely to violate the APA, and thus to place the regulatory change at risk of being struck down by a court if challenged, agencies may feel the need to obscure the message or the mandatory nature of their non-rule-rules, leading to excessive slippage between the behavior of regulatees and the agency’s own regulatory goals.

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206 *Chevron USA, Inc. v. Natural Res. Def. Counsel, Inc.*, 467 U.S. 837 (1984); *United States v. Mead Corp.*, 533 U.S. 218 (2001). While *Mead* was obviously decided well after the timeframe of our current study, the principle that it enunciates—that agency actions that have gone through the full panoply of APA procedural requirements will receive a higher degree of deference than those that have not—is, we think, not necessarily a surprising or new one, and is probably reflected in earlier cases in which the courts have proven willing to strike down non-rule-rules as violating APA requirements.

207 In some cases, the use of non-rule rules may also violate substantive (e.g. non-APA) statutes that, for example, specifically order—and not just authorize—an agency to regulate an issue through notice-and-comment.
We should also not overly discount the possibility, naïve as it may seem, that regulators might view notice-and-comment as tending to produce substantively better rules than more informal processes, perhaps in part because, on occasion, public comments actually contain useful ideas. In our interviews, a number of current Interior regulators suggested that this was indeed the case, even if many public comments were not particularly helpful. Finally, even if the notice-and-comment process is not in fact likely to lead to substantively better regulations, regulators may nonetheless have internalized a normative preference for proceeding via notice-and-comment as the “right thing to do.” Put somewhat differently, regulators may accept as a professional norm the notion that “good regulators” should proceed via notice-and-comment rather than through press releases and the like. None of this is to deny that regulators sometimes do seek to regulate through non-rule-rules. We are simply suggesting the possibility that in many cases regulators may have good reason to prefer to regulate through notice-and-comment.

In summary, we believe that the major implication of our Article is to suggest a need to reevaluate administrative law scholarship’s focus on ossification as one of the major evils of the modern regulatory environment. Our empirical examination of Interior rule-making from 1950-1990 does not support the claim that the notice-and-comment system is fundamentally broken. Agencies appear able and willing to issue substantial numbers of regulations even in the allegedly ossified period, and to do so relatively quickly. Rather than using the specter of ossification to justify radical changes to the existing administrative framework, such as the elimination of judicial re-

208 Cf. Jerry L. Mashaw, Foreword: The American Model of Federal Administrative Law: Remembering the First One Hundred Years, 78 GEO. WASH. L. REV. 975, 988-991 (2010) (describing the historical tendency of agencies to impose “structure and process” on their regulatory activities even when not required to do so by law).

209 Indeed, Wendy Espeland traces just such a process in Interior’s Bureau of Reclamation. She finds that BOR employees are “committed to the idea that citizens who are directly affected by their decisions should play a meaningful role in the planning process,” that this view is “well institutionalized” and is now a “routine feature of project planning.” Wendy Nelson Espeland, Bureaucratizing Democracy, Democraticizing Bureaucracy, 25 LAW & SOC. INQUIRY 1077, 1079 (2000). See also Reiss, supra note 45, at 374 (asserting that agencies have a self-interest in appearing to be accountable, and that as a result they voluntarily “already regularly go beyond the requirements of section 553 of the APA” in order to “increase their legitimacy and reduce criticism”).
view, or the widespread adoption of a negotiated rulemaking model, or development of a complicated menu of procedures from which agencies would be free to choose, it may be more worthwhile for students of the administrative process to devote their reformist energies to helping to alleviate intra-agency inefficiencies of the "red tape" variety. The public management literature typically defines organizational red tape as "rules, regulations, and procedures that remain in force and entail a compliance burden but do not advance the legitimate purposes the rules were intended to serve." Our interviews identified a number of areas in which relatively small red tape reforms might nonetheless lead to measurable improvements in the administrative process without lessening transparency and opportunities for public participation. Such reforms could be as minor as allowing regulators to make CRA submissions via courier or e-mail, or reconsidering the utility of the Paperwork Reduction Act, or providing agencies with funding to purchase or develop software solutions to the form comment problem.

Agencies might also be encouraged to re-examine their own internally imposed inefficiencies. For example, several of our in-

210 Cross, supra note 90.
211 Freeman, supra note 88.
212 CARNEGIE REPORT, supra note 18.
214 A number of our interviewees complained about the inconvenience caused by Congress’s insistence that CRA submissions be hand-delivered to Capitol Hill by an agency employee.
215 The PRA requires agencies to, among other things, obtain OMB approval of any agency forms that will impose an information collection burden on the public. Multiple interviewees complained intensely about the PRA, which, in their view (and somewhat ironically), has itself turned into a major source of red tape. Representatives of one agency said that they had hired an employee whose full-time job consisted of managing the agency’s PRA submissions. Despite the effort that PRA compliance requires, interviewees said that OMB virtually never denies PRA approval.
216 Several interviewees mentioned that the advent of electronically submitted form comments posed managerial challenges, as form comments had to be separated from non-form comments in order to ensure that the agency read and considered each unique comment. The volume of form and other kinds of non-substantive comments for certain rulemakings could be extremely high. For example, an interviewee recalled that FWS received over 600,000 comments in response to its proposed polar bear listing, of which only a small percentage were substantive non-form comments.
217 Jerry Mashaw has similarly suggested that “To the extent that we are interested in the reform of administrative law in the United States, we might do
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terviewees indicated that one of the most important sources of delay in Interior rulemaking was the Department’s Solicitor’s Office, which is responsible for reviewing Department regulations at various stages in the rule development process. We were told that some Department rule-writers view the Office as a “black hole” into which proposals might inexplicably disappear for months or even years. The problem apparently stems in part from the Office’s litigation workload; lawyers naturally prioritized their litigation responsibilities over their review duties. A solution might be to promote greater specialization in the Office by assigning rule-review duties to some lawyers, and litigation duties to others. Or the Department might impose and enforce internal rule-review deadlines, or put more energy into lobbying Congress for funding to hire additional lawyers.

We do not pretend that these kinds of relatively small-bore reform efforts would provide any hope of returning notice-and-comment rulemaking to halcyon days of yore, where one might imagine a regulator waking up one morning with a bright idea, spending a few minutes jotting it down on paper along with a cryptically short explanation of the idea’s justification and import, publishing the jottings in the next week’s Federal Register, glancing over the one or two comments received before throwing them in the trash, and ninety days later publishing a judicially impervious final rule laying out what the public henceforth can or cannot do. But if that is what rulemaking used to be, we are not sure that most people would want to return to it.218

X. Concluding Thoughts: The Need for Future Research

In conclusion, we would like to emphasize a point that is perhaps obvious: our study can hardly be considered the final empirical word on the reality or magnitude of regulatory ossification. Our analysis is, like virtually any empirical study, subject to a number of

better to operate on the internal law of administration than by ceaselessly tweaking the external law. … [M]y hope is that administrative lawyers can be convinced to look beyond judicial doctrine and the transsubstantive requirements of the external administrative law to see how administrative law really functions at the agency level and how it might be improved.” Mashaw, supra note 208, at 992.

218 Cf. Reiss, supra note 45, at 373 (noting that the American system of government is “based on limiting government efficiency and tying government hands to prevent abuse”).
important critiques, and we make no claim to have constructed a test of the ossification thesis that is devoid of significant weaknesses. In particular, we remain sensitive to the observation that we have failed to fully overcome the knotty problem of determining proper baseline expectations for regulatory volume and speed. Most obviously, for example, perhaps the proper empirical comparison was not between observed regulatory volume from 1950-1975 and observed regulatory volume from 1976-1990, but between the observed volume of regulations in the later period and a counterfactual volume of regulations that would have been promulgated in the later period absent ossification. Put a bit differently, perhaps there were significant changes in the societal need or demand for regulations across our two historical periods (with need or demand much higher in 1976-1990 than earlier), so that, absent ossification, we would have expected to see far higher volumes in the later period than we actually observe.

Empirically testing counterfactuals poses obvious epistemological problems. We have attempted to at least partially address this concern by constructing our rough measure of congressional demand for regulations (annual mentions of agencies in the congressional record). Figure 17, our last figure, presents an alternative test. Here we have simply plotted political scientist James Stimson’s measure of “public policy mood” against an annual count of DOI NPRMs.\(^\text{219}\)

Stimson’s measure of mood uses sophisticated statistical techniques to combine responses to questions from numerous public opinion surveys into a one-dimensional measure of the public’s preferences as to the role that government should play in society. The measure ranges from “liberal” to “conservative”, where “liberal” means a preference for more government involvement in society and “conservative” means less government involvement. Stimson’s work on public policy mood has been highly influential within his discipline.

Figure 17 shows that public policy mood was becoming markedly more conservative throughout the 1970s (indicated by a declining “percent liberal”). While the public policy mood reversed course after 1980, becoming more liberal, by the end of our period of study (1990) mood was still less liberal than it was in the 1960s. For our purposes, the main point is that Stimson’s measure does not support the notion that public demand for regulation was markedly higher in the ossification era than in the pre-ossification era. While this empirical observation does not entirely obviate the problem of selecting

\(^{219}\) Stimson’s data is available on his website, http://www.unc.edu/~jstimson/. For a description of Stimson’s methodology, see JAMES A. STIMSON, PUBLIC OPINION IN AMERICA: MOODS, CYCLES AND SWINGS (1991).
proper baseline comparators, it does strengthen our confidence in our assertion that DOI remained capable of proposing and promulgating numerically significant numbers of regulations during the ossification era. Stimson’s data does not suggest that the public was clamoring for dramatically more regulations than DOI was either ready or able to provide.

All this said, future researchers would do well to present, and to test, a more fully specified theory of the origins of regulatory demand or need, and to examine using more sophisticated research strategies the causal links between demand or need and regulatory outputs.

A second potential weakness of our test of the ossification thesis is the possibility that we are turning over the wrong agency rocks. Perhaps ossification has meaningfully stricken only certain agencies, such as those engaged in the most technically or scientifically complex regulations, or those engaged in formulating regulations of far greater societal importance than those typically produced by the Department of Interior. In other words, perhaps ossification impacts agencies differentially, so that it may be a serious problem at OSHA, or at EPA, but, for natural reasons, is not so much a problem at the agencies upon which we have focused. We read the ossification literature as portraying ossification as a generalized problem afflicting most (if not all) federal agencies, and, furthermore, we have offered above a number of strong justifications for our selection of Interior as our focus of study. However, future researchers may justifiably wish to focus their empirical efforts on attempting to systematically measure regulatory failure and delay in those agencies that are most often presented as plagued by the ossification phenomenon.

Alternatively, researchers may wish to attempt to distinguish rulemakings that are theoretically likely to suffer ossification from those that are not. This kind of rule-level comparative analysis might show, for example, that ossification is predictably a reality for certain kinds of rules (perhaps rules of high salience, or for rules that are economically significant) but less likely to be a reality for other kinds of rules (low salience rules, or economically insignificant rules). Our own analysis has not attempted to differentiate rules by rule-level characteristics, in large part because of the size of our database of rules. Such constructs as “salience” or “importance” are not obvi-

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220 Of course, it would be impossible to conduct a “before and after” study of the type that we present in this Article for agencies that were created in the 1970s.
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iously measurable from the texts published in the Federal Register. Nonetheless, one potentially fruitful avenue may be to randomly sample from our database of Interior NPRMs and final rules and to subject selected rulemakings to systematic content analysis designed to code rulemakings along theoretically relevant dimensions.

Third, and finally, a potentially significant problem with our analysis of delay in rulemaking is that we are unable to track the full regulatory process. In practice, a regulatory effort does not begin with an NPRM, but necessarily includes some measure of pre-NPRM activity. A regulator has an initial idea to begin exploring the possibility of producing an NPRM, and he or she starts collecting input from interested parties, both inside and outside the agency, and begins assembling supporting data. Many regulatory ideas never advance to the NPRM stage, but many of those that do must, at least in the modern era, pass through OMB review prior to publication of the NPRM in the Federal Register. In our analysis we are only able to begin tracking the regulatory process at the NPRM stage, which we treat, by necessity, as the beginning of the process whose duration we are measuring. We have no way of measuring the amount of time and effort that agencies invest in the pre-NPRM portion of the rule-making process; nor are we able to compare pre-NPRM efforts in more recent years with pre-NPRM efforts in years long passed.

One obvious implication is that our estimates of how long it takes to regulate would be longer if we were able to begin measuring the rulemaking process prior to the issuance of the NPRM. Another, less obvious implication is that ossification may be worse than we have suggested if agencies in more recent years are, because of the threat of hard look and OMB review, spending significantly more time in pre-NPRM rule development than they have in the past. There do not appear to many—or perhaps any—any feasible meth-

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221 For example, without intimate knowledge of a particular policy area, it will often be difficult to tell from an NPRM text whether a proposal to change a word or sentence in an existing regulation is an “important” change or not. While we can imagine certain facially plausible proxies for NPRM or rule importance (perhaps NPRM or rule length in words or characters), those proxies suffer from their own important problems. For example, word length is no guarantee of rule importance; furthermore, trends in agency practice may mean that agencies today feel the need to write more wordy regulations than they have in the past, independently of the regulation’s inherent importance. Beginning in 1995, agencies have been required to self-report in the Unified Agenda whether the agency considers a regulatory proposal to be “economically significant.” In our earlier article, we examined whether these “significant” regulatory actions were statistically more likely to suffer delay. Yackee & Yackee, supra note 24.
ods of systematically identifying what might be called the “bright idea” moment and measuring an idea’s progress through the pre-NPRM rule development process. Doing so would certainly be impossible for a large dataset, such as ours, that spans a long number of years.

One potential solution may be to turn to qualitative case studies. Of course, one of our critiques of the ossification literature in this Article has concerned the literature’s tendency to make generalized claims about ossification on the basis of relatively limited anecdotal examples. But this is not to say that qualitative case studies, when done properly, cannot provide high-quality (and indeed, “scientific”) evidence confirming or disconfirming a particular ossification-related hypothesis. What is needed is for qualitatively minded researchers interested in the question of ossification to be more methodologically self-conscious in selecting their cases (perhaps making more use of focused comparisons between alleged cases of ossification and cases in which rulemakings have not been ossified) and to be more disciplined and systematic in developing case-study evidence (perhaps by making greater use of social scientific survey and interview techniques).

In conclusion, despite these various limitations we view our empirical analysis as suggesting that the federal rulemaking process has not proven to be, as a general matter, fundamentally hobbled by various court, White House, and congressionally imposed constraints on bureaucratic autonomy and discretion. We haven’t attempted the daunting task of demonstrating that these constraints provide society with any particular benefits. But if we assume that they do provide some measure of benefit (as many scholars assume or argue), we would suggest that the corresponding costs do not appear to be so outsized as to necessarily imply that the current system needs to be radically reformed.

However, much more work remains to be done. McGarity’s original article, though now nearly twenty years old, remains an exceptionally stimulating and provocative contribution to administrative law scholarship that has achieved the deserved honor of admission into the pantheon of conventional wisdom. But now is the time

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222 One possibility, however, might be to first identify a sample of rules that result from specific statutory commands to regulate, and to use the statute’s date of effectiveness as the “bright idea” moment.

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to put that conventional wisdom to something more clearly resembling an empirical test. Our Article is an early and modest entry in what we hope will prove to be a rich empirical literature that seeks to advance our understanding of whether, how, and why federal agencies are—or are not—able to satisfactorily achieve their regulatory responsibilities.
XI. APPENDIX

Figure 1: Annual Number of Section 553 NPRMs Issued by the Interior Department

Figure 2: Annual Number of Final Section 553 Rules Issued by the Interior Department
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Figure 3: Annual Production of Section 553 NPRMs, by Major Agency

Figure 4: Annual Production of Section 553 Final Rules, by Major Agency
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Figure 5: Endangered Species Act Rulemaking in FWS
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Figure 6: Congressional Attention to Major Agencies

Figure 7: Agency Budgets, Constant Thousands of Dollars
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Figure 8: Success Rate of NPRMs, Pre-1976 and Post-1975

Figure 9: Kaplan-Meier Survival Estimates, DOI
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Figure 10: Kaplan-Meier Survival Estimates, by Major Agency

Figure 11: Kaplan-Meier Survival Estimates, ESA Regulation in FWS, 1974-1990
Figure 12: Annual Number of No-Comment Regulations, by Agency

Figure 13: Annual Number of No-Comment Regulations, FWS
Figure 14: Annual Number of News Releases, FWS

Figure 15: Decisions and Opinions Published in "Interior Decisions"
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Figure 16: Secretary’s Orders

Figure 17: Public Mood and DOI NPRM Production
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![Graph](image-url)
### Table 1: Section 553 Rulemaking Activity in the Interior Department

| Years in | Avg. Annual NPRMs | Avg. Annual Final Rules |
|----------|------------|------------|-----------|------------|------------|-----------|
| DOI      | 1955-1990  | 72.39      | 111.28    | +54%       | 61.81      | 93.79     | +52%     |
| BLM      | 1955-1990  | 9.57       | 12.87     | +34%       | 7.67       | 11.27     | +47%     |
| BOM      | 1955-1990  | 4.00       | 0.20      | -95%       | 4.43       | 0.20      | -95%     |
| BOR      | 1955-1990  | 0.38       | 1.00      | +162%      | 0.38       | 0.80      | +110%    |
| FWS      | 1955-1990  | 18.14      | 49.8      | +174%      | 16.24      | 44.00     | +171%    |
| GES      | 1955-1990  | 0.90       | 3.47      | +283%      | 0.67       | 2.93      | +340%    |
| HCR      | 1978-1981  | .          | 2.5       | .          | .          | 1.00      | .         |
| MES      | 1973-1978  | 3.00       | 4.67      | +56%       | 2.00       | 3.67      | +83%     |
| MMS      | 1982-1990  | .          | 7.22      | .          | .          | 4.67      | .         |
| NPS      | 1955-1990  | 12.95      | 10.33     | -20%       | 10.57      | 8.53      | -19%     |
| OIA      | 1959-1971  | 2.62       | .         | .          | 2.08       | .         | .         |
| OME      | 1958-1965  | 0.38       | .         | .          | 0.38       | .         | .         |
| OOG      | 1955-1974  | 0.75       | .         | .          | 0.60       | .         | .         |
| OOS      | 1955-1990  | 2.33       | 2.80      | +20%       | 1.95       | 2.20      | +13%     |
| OSM      | 1977-1990  | .          | 10.86     | .          | .          | 9.64      | .         |
| OSW      | 1955-1974  | 0.1        | .         | .          | 0.10       | .         | .         |
| WPC      | 1966-1970  | 1.4        | .         | .          | 1.20       | .         | .         |
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