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REGULATORY PRODUCTIVITY IN FEDERAL ADMINISTRATION: AN EMPIRICAL ANALYSIS OF THE DEEP STATE

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ABSTRACT

Critics of the so-called "Deep State" charge that administrative agencies regulate too pervasively and too often. These claims, however, do not stand on solid empirical ground. Instead, denunciations of the administrative state rely on sensationalized and unrepresentative narratives of regulatory overreach.

This Article introduces a two-dimensional conception of regulatory productivity comprising the volume of regulations promulgated by federal agencies, as well as temporal trends in regulatory activity. We marshal comprehensive data on all rulemaking pursuant to all significant federal legislation since the enactment of the Administrative Procedure Act to provide a systematic, empirical examination of regulatory productivity among administrative agencies. Namely, we present readily interpretable measures of regulatory productivity for every significant federal statute and supply recommendations for the cultivation of an empirical administrative law.

Further, we employ these data to consider how longitudinal variation in political conditions influences regulatory productivity across all federal statutes. This Article thus offers a template for an empirically rigorous analysis of the Deep State that should allow scholars and practitioners alike to understand

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better the scope of administrative power. Taken together, our analyses suggest that federal administration, considered systematically and empirically, bears scant resemblance to the domineering Leviathan imagined in conventional critiques of regulatory power in the administrative state.

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INTRODUCTION

Critics of the administrative state deny its legitimacy.[1] The zeal of these critiques, however, far outpaces their evidentiary foundation.

1. *See, e.g.*, Theodore J. Lowi, *Two Roads to Serfdom: Liberalism, Conservatism and Administrative Power*, 36 AM. U. L. REV. 295, 297–98, 303–04 (1987) ("[E]very delegation of discretion away from electorally responsible levels of government to professional career administrative agencies is a calculated risk because politics will always flow to the point of discretion; the demand for representation would take place at the point of discretion; and the constitutional forms designed to balance one set of interests against another would not

Broadsides alleging illegitimacy charge that administrative policymaking relies on an unconstitutional delegation of legislative authority by Congress to the bureaucracy and vests disproportionate policy discretion in unelected administrators.[2] Beyond their normative assertions about the participation of federal agencies in the policy process, however, such critiques—whether from members of Congress,[3]

be present at the point of discretion for that purpose."); Lisa Schultz Bressman, *Beyond Accountability: Arbitrariness and Legitimacy in the Administrative State*, 78 N.Y.U. L. REV. 461, 462 (2003) ("From the birth of the administrative state, we have struggled to describe our regulatory government as the legitimate child of a constitutional democracy. That is, we have sought to reconcile the administrative state with a constitutional structure that reserves important policy decisions for elected officials and not for appointed bureaucrats."). *But see* Mark Seidenfeld, *A Civic Republican Justification for the Bureaucratic State*, 105 HARV. L. REV. 1511, 1541–42 (1992) ("Administrative agencies . . . may be the only institutions capable of fulfilling the civic republican ideal of deliberative decisionmaking. . . . [This is because agencies] fall between the extremes of the politically over-responsive Congress and the over-insulated courts."); 3 JAMES M. BUCHANAN & GORDON TULLOCK, THE CALCULUS OF CONSENT: LOGICAL FOUNDATIONS OF CONSTITUTIONAL DEMOCRACY 298 (1962) (defending administrative governance on the grounds that "the 'ideal' organization of [political] activity . . . may allow considerable administrative authority on certain matters").

2. *See, e.g.*, Christopher J. Walker, *Restoring Congress's Role in the Modern Administrative State*, 116 MICH. L. REV. 1101, 1102 (2018) ("[T]here is no serious debate that Congress's legislative role has diminished as the bureaucracy has sprawled."). *But see* David B. Spence, *Administrative Law and Agency Policy-Making: Rethinking the Positive Theory of Political Control*, 14 YALE J. ON REG. 407, 450 (1997) (arguing that "by equating political control of agencies by politicians with a well-functioning democracy, some positive theorists present a false dichotomy" and that a more nuanced understanding of preferences across relevant institutions and the public "reveals that sometimes the public interest is better served not by more political control, but by less").

3. *See, e.g.*, 142 CONG. REC. 5208 (1996) (chronicling debate surrounding enactment of the Small Business Regulatory Fairness Act of 1995, enacted as a response to concerns among small business groups that federal regulations were excessive in number, complicated, and costly, during which Senator John Kerry of Massachusetts heralded the proposed legislation as it would "ease regulatory burdens and give small businesses some recourse when [f]ederal bureaucrats are over zealous in the exercise of their power"); 141 CONG. REC. 5466 (1995) (detailing debate over strengthening the Paperwork Reduction Act of 1980, which imposes constraints on administrative agencies promulgating regulations that increase the amount of paperwork required by individuals, small businesses, and some other groups, during which Representative Jan Meyers of Kansas claimed that small businesses were concerned that the terms of the Act had "significantly eroded during the past 5 years" and that there was a "growing tendency of agencies to ignore the Act's requirements"); Press Release, Roger Wicker, U.S. Senator, Wicker Supports New Bill to Stop Overregulation (Jan. 14, 2015), https://www.wicker.senate.gov/2015/1/wicker-supports-new-bill-to-stop-overregulation (indicating Senator Wicker's support for the Regulatory Responsibility for Our Economy Act based on his belief that "[e]xcessive regulation harms economic growth" and that "[r]epealing outdated regulations and requiring a cost-benefit analysis on new regulations are sensible ideas that will strengthen our economy").

the judiciary,[4] the academy,[5] or even agency executives themselves[6]—also depend on what is typically an implicit, empirical claim about the exercise of regulatory power in the administrative state: that federal agencies are *over*regulating by promulgating an *excessive* amount of rules, thus burdening individual freedom and organizational practices in the American polity. In their most conspiratorial form, critical assessments of regulatory activity among federal agencies involve or imply the accusation that administrative officials serve in what amounts to a shadow government called the "Deep State," using their role in the implementation of public policy to subvert the democratic will.[7] While concerning if true, critics of administrative governance appear more preoccupied with making their arguments than substantiating them.

Unlike the claim that administrative policymaking is normatively intolerable, the assertion that agencies are regulating too much can be evaluated using empirical methods—and this Article does just that.

4. *See, e.g.*, Jansen v. Packaging Corp. of Am., 123 F.3d 490, 510 (7th Cir. 1997) (Posner, J., concurring) ("[American] labor markets are becoming choked by regulation, all well meaning but cumulatively an impediment to the efficient employment of the nation's most valuable economic resource, which is its workers."), *aff'd sub nom.* Burlington Indus., Inc. v. Ellerth, 524 U.S. 742 (1998); *Id.* at 541 (Coffey, J., concurring) ("[E]mployers today are over-regulated . . . ."); State ex rel. Celebrezze v. Nat'l Lime & Stone Co., 627 N.E.2d 538, 544 (Ohio 1994) ("Excessive regulation can disrupt vital functions of a business, threatening the company's very existence.").

5. *See, e.g.*, Richard B. Stewart, *Beyond Delegation Doctrine*, 36 AM. U. L. REV. 323, 329 (1987) ("We have become addicted to federal rules and orders that attempt to minutely prescribe conduct throughout our complexly differentiated society. . . . [And this addiction] has resulted in a massive transfer of decisional power to federal administrative bureaucracies . . . ."); Cass R. Sunstein, *Constitutionalism After the New Deal*, 101 HARV. L. REV. 421, 450 (1987) ("Some observers have argued that administrators seek above all to enlarge their own powers, often producing excessive or misdirected regulation.").

6. *See, e.g.*, Hewitt v. Helix Energy Sols. Grp., Inc., 15 F.4th 289, 304 (5th Cir. 2021) (Ho, J., concurring) (quoting Eugene Scalia, U.S. Secretary of Labor, Address at the Federalist Society's 2019 National Lawyers Convention (Nov. 15, 2019)) (observing that Eugene Scalia, during an address at the Federalist Society's 2019 National Lawyers Convention, maintained "that excessive regulation 'stifle[s] American innovation and productivity' and 'burden[s] the economy'").

7. *See, e.g.*, Gilmore v. Jones, 339 F.R.D. 111, 115, 118 (W.D. Va. 2021) (describing allegations by the defendant in a defamation suit related to the far-right demonstrations in Charlottesville that the plaintiff in same "was a 'deep state' operative working with the State Department to orchestrate the rioting and violence in Charlottesville"); Hickerson v. CBS Corp., No. 18-CV-01182, 2019 WL 2358430, at *1, 3–5 (D.N.M. June 4, 2019) (including the claim from the plaintiff in a § 1983 litigation which alleged that the defendant, a major news organization, was violating the First Amendment through collusion with "deep state establishment government officials"); Tucker v. FBI Head Quarters, No. 19-13626, 2020 U.S. Dist. LEXIS 76297, at *2 (E.D. Mich. Feb. 26, 2020) (delineating the contention in plaintiff's complaint that the FBI were "'Surveillance Operatives,' which he defines as the 'Deep State' and/or 'Shadow Government'").

Despite the manifold debates over the scope of administrative power and widespread concern over the scope of agency authority, there are few objective or quantitative measures of how much regulatory power agencies actually exert.[8] Apoplexy over the "Deep State" is empirically underinformed, as critical accounts tend to proffer only sensationalized and unrepresentative cases as evidence in opposition to administrative governance.[9] This unreasonably narrow focus neglects to consider the operation of the administrative state as a whole, and fails to consult measures of regulatory activity in federal administration informed by any sense of empirical reality or comparative scale. The ensuing deficiency in our collective understanding of regulatory policymaking is particularly important because "agencies have the ability to shape policy in very meaningful ways."[10]

The myopic view of administrative governance just described, evidently uninformed by objective indicators of regulatory activity, was on display during a 1996 debate in the Senate over the Congressional Review Act, which gave Congress an expedited means of overruling agency regulations.[11] During the floor debate, then-Senator Frank Murkowski noted that "[f]or just one statute, the Resource Conservation and Recovery Act, EPA has issued 17,000 pages of regulations and proposed regulations" and that "[t]he Code of Federal Regulations occupies an entire 4 foot by 8 foot bookcase in the Senate library."[12] These critical assertions, however, fail to provide some important context: to wit, the Resource Conservation and Recovery Act ("RCRA")[13] is a serious outlier in terms of the regulatory output it has engendered.[14] Specifically, the data introduced subsequently in this Article reflects that RCRA is in the ninety-sixth percentile of significant federal statutes in terms of regulatory activity; in other words, more rules have been promulgated by

8. *But see Reg Stats*, REGUL. STUD. CTR., https://regulatorystudies.columbian.gwu.edu/reg-stats (last visited Oct. 15, 2022).

9. *See* Michael A. Livermore & Richard L. Revesz, *Regulatory Review, Capture, and Agency Inaction*, 101 GEO. L.J. 1337, 1350–51 (2013) (remarking that early defenders of involving the Office of Information and Regulatory Affairs in the regulatory review process were motivated by their unambiguous belief that federal administrative agencies were filled with "overzealous regulators" and that regulatory review would function as a "much-needed corrective" on agency overzealousness).

10. Bridget C.E. Dooling, *Into the Void: The GAO's Role in the Regulatory State*, 70 AM. U. L. REV. 387, 388 (2020).

11. *See* 142 CONG. REC. 5209 (1996).

12. *Id.* at 5210.

13. Resource Conservation and Recovery Act of 1976, Pub. L. No. 94-580, 90 Stat. 2795 (codified as amended at 42 U.S.C. §§ 6901–6992k).

14. Additionally, we contend that the size of the bookcase required to contain the Code of Federal Regulations is analytically irrelevant when evaluating the desirability of administrative governance.

federal administrative agencies pursuant to RCRA than have been promulgated pursuant to ninety-six percent of significant federal enactments.[15] Therefore, Murkowski supported his ideological claim regarding overregulation in the administrative state by citing a federal statute that bore an unusually fruitful regulatory output. It does not follow, however, that many or most congressional enactments give rise to this level of regulatory activity.

This Article uses comprehensive data on more than 38,000 rules promulgated by federal agencies pursuant to significant federal legislation to provide a systematic, empirical examination of regulatory productivity in the federal administration since the enactment of the Administrative Procedure Act.[16] In so doing, we introduce a two-dimensional conception of *regulatory productivity* comprising both (1) the *volume* of regulations promulgated by all federal agencies pursuant to each significant federal law; and (2) the temporal *trends* in regulatory activity (i.e., how the annual rate of regulation by a given agency or pursuant to a given law changes over time). As a mode of inquiry, this approach permits us to reduce the focus on outlier cases prevailing in most normative and ideological critiques of governance by administrative regulation and instead systematically assess variation in regulatory productivity across laws, agencies, and time.[17] This Article thus offers an exhaustive empirical analysis of regulation in the federal administrative state that stands in marked contrast to the exaggerated specter of regulatory overreach served up for rhetorical effect in the fulminations conventionally indicting administrative governance.

To evaluate regulatory productivity in federal administration, this Article proceeds as follows. Part I provides an overview of the legal and philosophical debates surrounding legislative delegation to the bureaucracy and administrative discretion, and relates these to the contemporary dialogue regarding the so-called Deep State. Part II introduces and articulates our two-dimensional conception of regulatory productivity and presents an empirical analysis of regulatory productivity pursuant to all significant federal legislation since 1947. Part III interrogates dynamism in regulatory productivity by considering not just overall measures of regulatory activity pursuant to a given law but the political, economic, social, and administrative factors that explain

15. *See infra* Part II. Throughout our analyses, we use the definition of "important enactments," or significant federal legislation, from DAVID R. MAYHEW, DIVIDED WE GOVERN: PARTY CONTROL, LAWMAKING, AND INVESTIGATIONS, 1946–2002, at 37–50 (2d ed. 2005).

16. Administrative Procedure Act, 5 U.S.C. §§ 551–559; *see infra* Parts II, III, and IV.

17. *See infra* Parts II, III, and IV.

the timing of regulatory actions. Part IV offers a framework for incorporating our approach and findings into scholarship and discourse on administrative governance and recommends that interested parties heed empirical reality when making explicit or implicit quantitative claims regarding regulatory productivity. We conclude by considering the implications of our argument and approach for evaluating the democratic legitimacy of the administrative state.

I. DELEGATION, DISCRETION, AND THE DEEP STATE

A. Delegation

In a system of government characterized by the separation of powers, lawmaking authority is the exclusive province of the legislature, and formally speaking, "the legislative power of Congress cannot be delegated."[18] The truth, of course, is rather more complicated.[19] In the real world, the power to make law (or something like it) is conferred on federal agencies by Congress with regularity and apparent enthusiasm.[20] The functional delegation of legislative power to agencies engenders

18. United States v. Shreveport Grain & Elevator Co., 287 U.S. 77, 85 (1932).

19. *See* Kenneth Culp Davis, *A New Approach to Delegation*, 36 U. CHI. L. REV. 713, 713 (1969) ("The non-delegation doctrine is almost a complete failure. It has not prevented the delegation of legislative power. Nor has it accomplished its later purpose of assuring that delegated power will be guided by meaningful standards."); David J. Barron & Elena Kagan, *Chevron's Nondelegation Doctrine*, 2001 SUP. CT. REV. 201, 201 (2001) ("American public law today recognizes only one nondelegation doctrine, and even that one almost always in the breach."); Eric A. Posner & Adrian Vermeule, *Interring the Nondelegation Doctrine*, 69 U. CHI. L. REV. 1721, 1722 (2002) ("[T]here just is no constitutional nondelegation rule, nor has there ever been. The nondelegation position lacks any foundation in constitutional text and structure, in standard originalist sources, or in sound economic and political theory.").

20. *See, e.g.*, 42 U.S.C. § 7521(a)(1) ("The [EPA] Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles . . . which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare."); 29 U.S.C. § 655(b) (stipulating that the Secretary of Labor "may by rule promulgate, modify, or revoke any occupational safety or health standard" in circumstances where the Secretary determines employee safety or health is jeopardized); 15 U.S.C. § 78*o*-9(d)(1) ("[The Securities and Exchange] Commission shall, by rule . . . establish a system for the assignment of nationally recognized statistical rating organizations to determine the initial credit ratings of structured finance products . . . ."). Though the line separating a delegation of legislative power from a congressional command to implement legislative policy may sometimes appear hazy, in these and many other cases, agencies are afforded substantial latitude by Congress to determine policy—i.e., to make law—almost entirely on their own, mindful that such policies may be reversed through subsequent legislative revision or judicial review.

various levels of apprehension across the courts, the academy, and the commentariat.[21] Namely, legal and philosophical debates surround the constitutionality of delegated authority, including the conditions (if any) under which statutory delegations of legislative power are constitutionally permissible, as well as the democratic legitimacy of placing substantial policymaking authority in federal administration.[22]

The legal theory conventionally marshaled to oppose administrative governance by delegated authority proceeds by maintaining that excessive congressional delegation to executive branch agencies violates Article I, which vests the exclusive legislative power in Congress.[23] Even critics permit, however, that Congress cannot realistically be expected to determine the specific contours and standards for every legislative program on its own and thus tolerate some degree of delegated authority in legislation.[24] Ostensibly to constrain the quality and scope of

21. For example, the Supreme Court, in the context of a debate over a law giving the President the power to establish industrial codes of conduct, held that "[s]uch a delegation of legislative power is unknown to our law, and is utterly inconsistent with the constitutional prerogatives and duties of Congress." A.L.A. Schechter Poultry Corp. v. United States, 295 U.S. 495, 537 (1935); *see also* Gary Lawson, *The Rise and Rise of the Administrative State*, 107 HARV. L. REV. 1231, 1231 (1994) ("The post-New Deal administrative state is unconstitutional, and its validation by the legal system amounts to nothing less than a bloodless constitutional revolution."); MARK R. LEVIN, REDISCOVERING AMERICANISM AND THE TYRANNY OF PROGRESSIVISM 129 (2017) (claiming that proponents of expansive administrative governance "revile the Constitution's limits on unified, centralized power and its separation-of-powers formula").

22. *See* Lawson, *supra* note 21, at 1231; Richard A. Epstein, *Why the Modern Administrative State Is Inconsistent with the Rule of Law*, 3 N.Y.U. J.L. & LIBERTY 491, 495–503 (2008) (asserting, among other claims, that the institutions of the modern administrative state exceed the constitutional capacity intended for the federal executive); DAVID SCHOENBROD, POWER WITHOUT RESPONSIBILITY: HOW CONGRESS ABUSES THE PEOPLE THROUGH DELEGATION 181 (1993) (advocating for the revival of the nondelegation doctrine in largely consequentialist terms). *But see* Jerry L. Mashaw, *Prodelegation: Why Administrators Should Make Political Decisions*, 1 J.L. ECON. & ORG. 81, 91, 95 (1985) (offering an affirmative endorsement of administrative governance based on the notion that there is "no strong reason to believe that broad delegations of authority either delegitimize governance or produce systematically negative welfare effects" and that "it may make sense to imagine the delegation of political authority to administrators as a device for improving the responsiveness of government to the desires of the electorate"). Other scholars have sought to steer a middle course between the pro- and anti-delegation camps by conceiving of delegation as "a matter of degrees, not absolutes" and advocating for cabining but not eliminating agencies' capacity to regulate based on delegated authority. D.A. Candeub, *Preference and Administrative Law*, 72 ADMIN. L. REV. 607, 614–47 (2020).

23. U.S. CONST. art. I, § 1 ("All legislative Powers herein granted shall be vested in a Congress of the United States . . . ."); David Schoenbrod, *The Delegation Doctrine: Could the Court Give It Substance?*, 83 MICH. L. REV. 1223, 1224–25 (1985).

24. Lawson, *supra* note 21, at 1239 ("A governmental function is not legislative, however, merely because it involves some element of policymaking discretion: it has long

congressional delegations to the bureaucracy, the Supreme Court has held that so long as Congress "lay[s] down by legislative act an intelligible principle to which the person or body" to whom authority is statutorily granted "is directed to conform, such legislative action is not a forbidden delegation of legislative power."[25] For practical purposes, this directive has proved but a parchment barrier to regular congressional delegations of power, and even proponents of curtailing administrative governance concede that the exercise of quasi-legislative authority by federal agencies "is not going to change any time soon."[26]

Despite the traditional maxim that delegations of legislative power are constitutionally impermissible, empirical research suggests that over ninety-nine percent of significant federal legislation from the enactment of the Administrative Procedure Act to 2016 delegated at least some discretionary authority to one or more federal agencies.[27] Positive political theorists and empirical researchers in the social sciences suggest several explanations for congressional choices to delegate lawmaking authority to administrative institutions. For example, scholars have argued that the transaction costs associated with the canonical legislative process (which demands locating consensus among legislators with heterogeneous interests) incentivizes legislators to delegate to

been understood that some such exercises of discretion can fall within the definition of the executive power.").

25. J.W. Hampton, Jr., & Co. v. United States, 276 U.S. 394, 409 (1928). The Supreme Court has alternatively but complementarily maintained that "Congress cannot delegate any part of its legislative power except under the limitation of a prescribed standard." United States v. Chicago, M., St. P. & P.R. Co., 282 U.S. 311, 324 (1931). Despite this pronouncement from the Court, scholars nevertheless contend that the "prescribed standard" doctrine has allowed for the judicial usurpation of legislative or regulatory power as "courts have begun to assume the responsibility for formulating regulatory policy where the legislature has failed to do so." Stephen Koslow, *Standardless Administrative Adjudication*, 22 ADMIN. L. REV. 407, 407 (1970).

26. Peter B. McCutchen, *Mistakes, Precedent, and the Rise of the Administrative State: Toward a Constitutional Theory of the Second Best*, 80 CORNELL L. REV. 1, 41 (1994). The reluctance of courts to hold statutes unconstitutional on the basis of violating the nondelegation doctrine is demonstrated by the Supreme Court having only invalidated two statutory provisions on nondelegation grounds in its history, both in 1935. Ilan Wurman, *As-Applied Nondelegation*, 96 TEX. L. REV. 975, 976 (2018). An analogous debate occurs in the context of state administrative law. *See, e.g.*, Joseph v. S.C. Dep't of Lab., Licensing & Regul., 790 S.E.2d 763, 778 (S.C. 2016) ("If the executive branch, through unelected bureaucrats and seemingly countless administrative agencies, is going to set policies having the force of law, the judicial branch must insist on clear delegation from the legislative branch and strict compliance with the APA . . . .").

27. *See* Pamela J. Clouser McCann & Charles R. Shipan, *How Many Major US Laws Delegate to Federal Agencies? (Almost) All of Them*, 10 POL. SCI. RSCH. & METHODS 438, 440 (2022).

agencies.[28] Likewise, other research focuses on convergence or divergence between the policy preferences of members of Congress, on the one hand, and the policy preferences of administrators who could potentially be the recipients of delegated authority, on the other.[29] Additionally, scholars have identified institutional capacity in the legislature as a significant factor structuring the scope of bureaucratic autonomy pursuant to statutorily delegated power.[30] Existing work has not yet, however, offered a comprehensive empirical examination of how agencies have exercised the regulatory authority they have with such frequency been delegated by Congress.

B. Discretion

Alongside opposition to the delegation of the legislative prerogative more broadly, some critics charge that federal statutes (even if constitutional on nondelegation grounds) bestow an unsustainable grant of discretionary power on federal agencies.[31] The jurisprudential engine powering judicial interpretations of the constitutionally bearable level of discretion afforded to administrative agencies is a series of Supreme Court decisions collectively flying under the doctrinal banner of judicial deference to administrative judgment.[32] Generally speaking, assuming

28. *See* DAVID EPSTEIN & SHARYN O'HALLORAN, DELEGATING POWERS: A TRANSACTION COST POLITICS APPROACH TO POLICY MAKING UNDER SEPARATE POWERS 8 (1999).

29. *See generally* Craig Volden, *A Formal Model of the Politics of Delegation in a Separation of Powers System*, 46 AM. J. POL. SCI. 111 (2002).

30. JOHN D. HUBER & CHARLES R. SHIPAN, DELIBERATE DISCRETION? THE INSTITUTIONAL FOUNDATIONS OF BUREAUCRATIC AUTONOMY 26 (2002).

31. *See, e.g.*, PHILIP HAMBURGER, IS ADMINISTRATIVE LAW UNLAWFUL? 78–79 (2014) (maintaining that virtually the entire institutional apparatus of the modern administrative state violates bedrock principles of both the common law tradition, as well as the U.S. Constitution); THEODORE J. LOWI, THE END OF LIBERALISM: THE SECOND REPUBLIC OF THE UNITED STATES 40 (1969) (contending that rampant delegation of lawmaking power to administrative agencies enabled the steady growth in influence by organized interest groups); JAMES O. FREEDMAN, CRISIS AND LEGITIMACY: THE ADMINISTRATIVE PROCESS AND AMERICAN GOVERNMENT 71–72 (1980) (arguing that administrative governance presents a crisis in democratic legitimacy by removing policy decisions from input and scrutiny by the public); Theodore Lowi, *The Public Philosophy: Interest-Group Liberalism*, 61 AM. POL. SCI. REV. 5, 13 (1967) (listing the "delegation of power to administrators" as one of the federal "practices that made convincing use of popular rule doctrine impossible").

32. *See* Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 842–45 (1984) (articulating the degree to which courts should defer to formal agency interpretations of statutes delegating them regulatory authority); United States v. Mead Corp., 533 U.S. 218, 231–32 (2001) (limiting *Chevron* deference to those instances in which Congress intended to delegate authority that includes issuing rulings with the force of law); Skidmore v. Swift & Co., 323 U.S. 134, 140 (1944) (establishing that under certain conditions courts should defer to informal, nonbinding interpretations of federal statutes by administrative agencies); Auer v. Robbins, 519 U.S. 452, 461 (1997) (citing Robertson v. Methow Valley

Congress has not unambiguously prescribed its intent regarding the interpretation of language in a delegatory statute, courts are expected to defer to agency interpretations of ambiguous statutory language so long as the agency's construal is neither arbitrary nor capricious (if the linguistic ambiguity was an explicit congressional choice) or the agency reading is reasonable (if the ambiguity in statutory language was an implicit congressional decision).[33]

The compliant posture required of courts vis-à-vis agency decisions in *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.* and other cases in the judicial deference jurisprudence has come under attack on both formalist and consequentialist grounds.[34] For instance, in constitutional terms, critics identify a tension between *Chevron* and *Marbury v. Madison* by contending that the former's command that courts defer (if contingently) to agency interpretations of ambiguous statutory language violates the latter's charge that "[i]t is emphatically the . . . duty of the judicial department to say what the law is."[35] Other scholars have reasoned that current doctrines governing judicial deference to agency interpretations of legislation and regulation alike impermissibly allocate constitutional functions across institutions because they allow for members of Congress "to also serve as law interpreters, in contravention of basic separation-of-powers principles" and contend that "[o]pen-ended delegations allow *both* legislators and administrators to combine lawmaking with law interpretation."[36] Further, at least one prominent critic of *Chevron* deference has argued that the doctrine demands that judges abrogate their duty to exercise

Citizens Council, 490 U.S. 332, 359 (1989)) (requiring that courts defer to agency interpretations of the agency's own ambiguous regulations so long as such interpretation is neither plainly erroneous nor inconsistent with the regulation).

33. *See Chevron*, 467 U.S. at 842–44. The motivations for legislative decisions to afford discretion to administrators are, to be sure, the object of some controversy, with at least one scholar contending that "[a] legislature . . . rarely grants discretion . . . out of any sense of affection for discretion or for the agency" as "[t]he legislature's concerns are how specifically it wants to frame the statutory rule and how directly it wants to speak to the statute's ultimate target." Edward L. Rubin, *Law and Legislation in the Administrative State*, 89 COLUM. L. REV. 369, 384 (1989).

34. *See generally* Christopher J. Walker, *Attacking* Auer *and* Chevron *Deference: A Literature Review*, 16 GEO. J.L. & PUB. POL'Y 103 (2018) (cataloguing the arguments for narrowing the potency of *Chevron* and *Auer* deference as well as for eliminating them altogether).

35. Marbury v. Madison, 5 U.S. 137, 177 (1803); *see* Walker, *supra* note 34, at 111–12 (quoting Michigan v. EPA, 576 U.S. 743, 760–61 (2015) (Thomas, J., concurring)) (arguing that *Chevron* deference contradicts the judicial supremacy doctrine announced in *Marbury*).

36. Neomi Rao, *Administrative Collusion: How Delegation Diminishes the Collective Congress*, 90 N.Y.U. L. REV. 1463, 1498–99 (2015).

independent judgment, thus introducing systematic judicial bias into contemporary administrative law.[37]

C. *The Deep State*

Taken together, the sundry misgivings regarding delegation of lawmaking power and administrative discretion described in the preceding subsections reflect a distinct complex of anxieties regarding the scope and pervasiveness of administrative regulation in American public life.[38] In recent years, and especially during the Trump Administration, allegations that federal administrators wield disproportionate influence on the policy process have also tended to involve the more outlandish proposition that there is a "vast expanse of federal administrative agencies" constituting a "Deep State" that actively and subversively frustrates the express goals of their democratically elected political principals.[39] Not simply the province of the anti-statist right-wing fringe, charges that recalcitrant officials in the administrative state impede the democratic process by refusing to implement the preferences of their political superiors have resounded from the highest levels of the executive branch.[40]

For all their bombast, however, claims about the nefarious reach of the Deep State typically do not stand on solid empirical ground and instead rely on sensationalized and unrepresentative narratives of administrative overreach.[41] While the conceptual and rhetorical cases

37. Philip Hamburger, Chevron *Bias*, 84 GEO. WASH. L. REV. 1187, 1205–13 (2016).

38. *See supra* Sections I.A, I.B.

39. Jon D. Michaels, *The American Deep State*, 93 NOTRE DAME L. REV. 1653, 1655 (2018); *see also* Loren Dejonge Schulman, *The Deep State Is a Figment of Steve Bannon's Imagination*, POLITICO (Mar. 9, 2017), https://www.politico.com/magazine/story/2017/03/the-deep-state-is-a-figment-of-steve-bannons-imagination-214892/. *Contra* Michaels, *supra*, at 1655 ("Broadly speaking, prior to 2017 our deep state has simply been referred to as our state.")

40. Heidi Kitrosser, *Accountability in the Deep State*, 65 UCLA L. REV. 1532, 1535 (2018) (noting that Ryan Zinke, the first Secretary of the Interior during the Trump Administration, estimated that nearly one third of his department's employees were "not loyal to the flag").

41. *See, e.g.*, Eric Lipton & Danielle Ivory, *Trump Says His Regulatory Rollback Already Is the 'Most Far-Reaching'*, N.Y. TIMES (Dec. 14, 2017), https://www.nytimes.com/2017/12/14/us/politics/trump-federal-regulations.html (including a photograph of former President Trump standing in front of 185,000 sheets of paper to represent his belief that agencies were producing excessive regulation); Press Release, Mitch McConnell, U.S. Senator, McConnell Statement on the Three-Year Anniversary of Obamacare (Mar. 22, 2013), https://www.mcconnell.senate.gov/public/index.cfm/2013/3/mcconnell-statement-on-the-three-year-anniversary-of-obamacare ("Implementation [of the Affordable Care Act] has . . . become a bureaucratic nightmare, with some 159 new government agencies, boards, and

against the delegation of discretionary lawmaking authority to administrators may not be automatically unreasonable, such accounts (even if theoretically plausible) amount to little more than speculation in the absence of empirical verification that the assumptions underlying critical perspectives on administrative power are well-founded. Specifically, an implicit empirical claim undergirds most condemnation of administrative governance. In their rush to conclude that the Deep State is legally, philosophically, politically, or economically indefensible, opponents of delegating power to federal administration assume as fact or assert without evidence that agencies exceed some normatively appropriate level of regulatory activity.[42] The level of regulatory productivity among federal agencies, however, is an empirically measurable quantity of central relevance to debates about administrative power. In the remainder of this Article, we remedy this unfamiliarity with the empirical realities of federal regulatory productivity by presenting comprehensive data on the promulgation of regulations by all federal agencies pursuant to all significant federal legislation from the enactment of the Administrative Procedure Act through 2018.[43] The data and findings we present thus serve to lend empirical mooring to theoretical debates about the scope of administrative power and will therefore allow participants in such debates to construct empirically informed arguments about regulatory productivity in the so-called Deep State.

programs busily enforcing the roughly 20,000 pages of rules and regulations already associated with this law.").

42. *See, e.g.*, Clyde Wayne Crews, *Obama's 2016 Federal Register Just Topped Highest Page Count of All Time*, COMPETITIVE ENTER. INST. (Nov. 17, 2016), https://cei.org/blog/obamas-2016-federal-register-just-topped-highest-page-count-of-all-time/ ("President Barack Obama's Federal Register, the daily depository of rules and regulations, added 572 pages today, and stands at 81,640 pages for 2016.").

43. 5 U.S.C. §§ 551–559; *see infra* Parts II, III, and IV. While there exists research empirically analyzing the scope of administrative power, much of this work takes as its focus the judicial review of adjudicatory and regulatory actions by federal agencies. *See* Richard J. Pierce, Jr., *What Do the Studies of Judicial Review of Agency Actions Mean?*, 63 ADMIN. L. REV. 77, 86 (2011) (providing a meta-analysis of ten empirical studies on how courts apply various doctrines in administrative law to agency actions); *see also* David Zaring, *Reasonable Agencies*, 96 VA. L. REV. 135, 137 (2010) (examining the extent to which judicial choices regarding legal standards of review in challenges to administrative actions are associated with the probability that agency decisions will be affirmed). Other empirical scholarship has examined the judicial construction of *Auer* deference specifically, finding that a judge's ideological and political preferences are not associated with variation in the likelihood that judge will uphold an agency's interpretation of its own rules. Richard J. Pierce, Jr. & Joshua Weiss, *An Empirical Study of Judicial Review of Agency Interpretations of Agency Rules*, 63 ADMIN. L. REV. 515, 521 (2011).

II. FEDERAL STATUTES AND REGULATORY PRODUCTIVITY

In order to analyze empirically the actual exercise of delegated regulatory authority in federal administration, it bears establishing more specifically the elements constituting our conception of regulatory productivity. Our analytical approach leveraging comprehensive data on all agency rulemaking pursuant to all significant federal legislation starting in 1947 affords us the information necessary to construct valid measures of regulatory productivity that are comparable over time and across statutes and agencies.[44] The novel measures we present below are also readily interpretable and usable for scholars, practitioners, agencies, and courts. Specifically, we conceive of regulatory productivity along two dimensions: *volume* and *trends*.

A. *Two Dimensions of Regulatory Productivity*

First, we explain regulatory productivity in terms of *volume*: the total number of rules agencies produce when implementing or interpreting a statute. Our measure of volume is a simple measure that is easily interpretable and comparable across time, statutes, and agencies. Because we are able to link each agency rule to the statute the agency cites as authority, we can produce counts of agency rules for each statute, thereby measuring the volume of regulatory productivity across significant federal legislation over roughly seven decades.[45]

Second, we describe regulatory productivity in terms of *trends*: how regulation increases or decreases over time. It is entirely possible that a statute with a high volume of rules has a high volume of rules simply because that statute was passed decades in the past and agencies have steadily continued to promulgate rules pursuant to it. For example, agencies have produced 198 rules pursuant to the Alaska National Interest Lands Conservation Act of 1980[46] because over its approximately four-decade lifespan, agencies have consistently produced no more than thirteen rules (about 6.5% of all rules) per year. By contrast, agencies have produced a similarly large number of rules (138) pursuant to the

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44. *See* MAYHEW, *supra* note 15, at 37–50.

45. We are able to develop these measures and pair each rule with its supporting statutory authority by consulting the ProQuest database Regulatory Insight. *Regulatory Insight*, PROQUEST, https://about.proquest.com/en/products-services/Regulatory-Insight/ (last visited Oct. 15, 2022).

46. Alaska National Interest Lands Conservation Act of 1980, Pub. L. No. 96-487, 94 Stat. 2371.

Truth in Lending Simplification and Reform Act,[47] also enacted in 1980, but 119 (over 85%) of those rules were produced within the first four years after enactment. Although the latter statute has seen fewer regulations promulgated pursuant to it over the ensuing four decades, the remarkable speed with which rule production began after its enactment is significant because temporal trends in rulemaking are an indicator of a different kind of regulatory productivity from volume alone.[48] Further, other statutes exhibit increasing trends in regulatory productivity over time when agencies produce fewer rules during a law's infancy and more as time goes on.[49] For example, agencies have promulgated 702 rules pursuant to the Energy Policy and Conservation Act of 1975,[50] but 254 of those (about 35%) were promulgated after 2008, whereas only 185 (about 25%) were promulgated in the ten years after enactment. This measure of whether rulemaking pursuant to a given statute is increasing, decreasing, or static over time reflects the longitudinal stability of agency statutory interpretation and therefore provides a basis for evaluating the exercise of administrative discretion.

These two dimensions, volume and trends, together offer a comprehensive picture of regulatory productivity. In the following subsections of Part II, we describe how we measure these two dimensions, present a series of descriptive findings from our data, and connect those findings to debates over the scope of administrative authority in American government.

B. *Measuring the Productivity of Federal Statutes*

As stated above, our measure of volume is fairly straightforward: the total number of rules promulgated pursuant to a given statute. Statutes like the Housing and Urban Development Act of 1968,[51] the Clean Air Act Amendments of 1990,[52] and the Toxic Substances Control Act of 1976[53] are examples of statutes that engendered high-volume regulatory productivity, with agencies producing 7,702, 1,539, and 1,103 rules respectively pursuant to each statute from enactment through 2018. Those statutes, however, are significant outliers. The median volume of rules for all 347 significant federal statutes in our data is only thirty,

47. Truth in Lending Simplification and Reform Act of 1980, Pub. L. No. 96-221, tit. VI, 94 Stat. 132, 168 (codified as amended at 15 U.S.C. § 1602).

48. *See infra* Part II.C.

49. *See infra* Part II.C.

50. Energy Policy and Conservation Act of 1975, Pub. L. No. 94-163, 89 Stat. 871.

51. Housing and Urban Development Act of 1968, Pub. L. No. 90-448, 82 Stat. 476.

52. Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399.

53. Toxic Substances Control Act of 1976, Pub. L. No. 94-469, 90 Stat. 2003.

meaning agencies have promulgated more than thirty rules for half of all statutes and fewer than thirty rules for the other half. What is more, agencies have promulgated fewer than ninety-three rules for 75% of significant federal statutes.

Measuring trends is a bit more complex. We measure trends for each statute by regressing the count of rules produced each year on the years from a statute's enactment.[54] The equation we estimate for each statute is:

$$Count\ of\ Rules = \alpha + \beta \times Years\ from\ Statute's\ Passage + \varepsilon$$

Our measure of trends is β, which is an estimate of how many additional rules agencies promulgate with each additional year after a law's enactment; α and ε are necessary for estimation but not relevant to our measure of trends. Positive values indicate that the speed of regulation is increasing over time, negative values indicate that the speed of regulation is decreasing over time, and a zero value indicates that regulatory productivity is not changing over time. Statutes like the Energy Policy and Conservation Act of 1975,[55] the Department of Homeland Security's organic statute passed in 2002,[56] and the Federal Insecticide, Fungicide, and Rodenticide Act of 1947[57] are examples of statutes with increasing regulatory productivity, with production increasing in speed by an additional rule every five to ten years. The Housing and Urban Development Act of 1968,[58] the Food, Conservation, and Energy Act of 2008,[59] and the Clean Air Act Amendments of 1990[60] are examples of statutes with rapidly decreasing regulatory productivity, with production decreasing in speed by eight, five, and four rules a year respectively. Those statutes, again, are outliers. The median trend of rules for all significant laws is -0.1 (each ten years, agencies produce one fewer rule than the previous ten years), 25% of trends are less than -0.4 (each five years, two fewer rules than the previous five years), 75% of trends are less than -0.02 (each fifty years, agencies produce one fewer rule than the previous fifty years), and only twenty-five statutes (about

54. *See generally* DAMODAR N. GUJARATI, BASIC ECONOMETRICS 37–106 (4th ed. 2004) (explaining that two-variable ordinary least squares regression is the best linear unbiased estimator of the statistical association between two variables and providing for an interpretation of regression coefficients).

55. 89 Stat. at 871.

56. Homeland Security Act of 2002, Pub. L. No. 107-296, 116 Stat. 2135.

57. Federal Insecticide, Fungicide, and Rodenticide Act of 1947, Pub. L. No. 80-104, ch. 125, 61 Stat. 163 (codified at 7 U.S.C. §§ 136–136y).

58. Housing and Urban Development Act of 1968, Pub. L. No. 90-448, 82 Stat. 476.

59. Food, Conservation, and Energy Act of 2008, Pub. L. No. 110-246, 122 Stat. 1651.

60. Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399.

7%) have positive trends. The vast majority of statutes have decreasing regulatory productivity as they mature.

To intuit our measure of trends, Figure 1 plots the regulatory trajectory of three interesting laws: the Clean Air Act Amendments of 1990,[61] the Federal Insecticide, Fungicide, and Rodenticide Act of 1947,[62] and the Housing and Urban Development Act of 1968.[63] The black line plots the volume of regulations promulgated pursuant to each statute, and the blue line displays the trendline we use to measure trends in regulatory productivity. The slope of the blue line is our measure of trends. The Clean Air Act Amendments of 1990 is a clear example of a decreasing trend as the blue line ranges from about 100 in the year of enactment to almost zero in 2018.[64] The Federal Insecticide, Fungicide, and Rodenticide Act of 1947, on the other hand, is a clear example of an increasing trend as the blue line ranges from about zero at enactment to about eight in 2018.[65]

61. *Id.*
62. Ch. 125, 61 Stat. at 163–73.
63. 82 Stat. at 476.
64. 104 Stat. at 2399.
65. Ch. 125, 61 Stat. at 163–73.

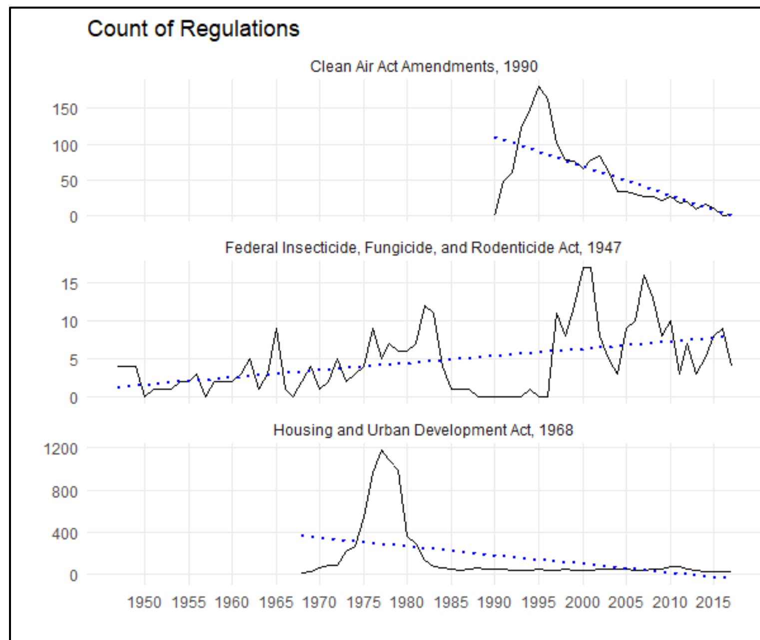

Figure 1. Regulatory Trajectory of Three Statutes. The black lines are the volume of regulations pursuant to each statute, and the blue lines are the trendlines, the slopes of which constitute our measure of trends in regulatory productivity.

Figure 2 plots our measures of volume and trends for all significant federal legislation starting in 1947. Each point is a statute, the horizontal axis is our measure of trends, and the vertical axis is our measure of volume. The upper panel displays all statutes, but the lower panel excludes outliers (those with more than 500 rules, or a trend greater than 2.5 or less than -2.5) in order to zoom in on statutes with more standard regulatory trajectories. The upper panel displays how extreme the Housing and Urban Development Act of 1968[66] and Clean Air Act Amendments of 1990[67] are relative to more standard statutes. The lower panel shows visually just how few laws have a positive trend with increasing regulation over time given the dearth of observations to the right of the vertical line at zero, and highlights the uniqueness of the Federal Insecticide, Fungicide, and Rodenticide Act of 1947[68] and the Homeland Security Act of 2002.[69]

66. 82 Stat. at 476.
67. 104 Stat. at 2399.
68. Ch. 125, 61 Stat. at 163.
69. Homeland Security Act of 2002, Pub. L. No. 107-296, 116 Stat. 2135.

Figure 2 uncovers several patterns worth noting. First, as noted above, the median volume of rules promulgated pursuant to a statute is only thirty rules, meaning that half of statutes have more than thirty rules and half of statutes have fewer than thirty rules.[70] The lower panel shows that there is considerable variation in the volume of regulatory productivity among statutes with more than thirty rules, but that only forty-two (about 12%) of all 347 significant federal statutes have more than 200 rules during the time period in question.[71] The typical statute simply does not see an excessive amount of regulation in pure quantitative terms. Although certain statutes are associated with high-volume regulatory productivity, these are significant outliers and are not representative of the typical regulatory trajectory of significant federal legislation.

Second, of those statutes with high-volume regulatory productivity (more than thirty rules), only eight (4.5%) have positive trends, while seventeen (10%) statutes with low-volume regulatory productivity (thirty or fewer rules) have positive trends.[72] Of those statutes with high-volume regulatory productivity—a potential measure of administrative overreach for those concerned about runaway bureaucracy—over 95% have decreasing regulatory productivity over time, implying that the administrative interpretation of congressional statutes is locked in during the first few years after enactment.[73] Agencies are not continually reinterpreting legislation years after enactment, suggesting a certain stability of agency statutory interpretation over time.

Third, even among those statutes with increasing regulation over time, none are increasing at a significantly rapid pace. The law with the fastest-increasing regulatory productivity (excluded from the lower panel) is the Energy Policy and Conservation Act of 1975.[74] That statute's trend, however, is only 0.2, indicating that every five years, agencies produce one rule more than the previous five years.[75] Even if one grants that increasing regulation over time is an indication of administrative overreach, there is no empirical proof that such a phenomenon occurs in sufficiently high magnitude to be concerning.

Fourth, among the few statutes with increasing regulatory productivity, very few have a high volume of regulatory productivity. Only seven statutes (about 28%) with increasing trends have had more

70. *See infra* Figure 2.
71. *See infra* Figure 2.
72. *See infra* Figure 2.
73. *See infra* Figure 2.
74. Energy Policy and Conservation Act of 1975, Pub. L. No. 94-163, 89 Stat. 871.
75. *See infra* Figure 2.

than fifty rules promulgated pursuant to them since enactment.[76] Even if one grants that increasing regulation over time is an indication of administrative overreach and that the magnitude of that increasing trend is irrelevant, only twenty-five of 347 statutes (about 7%) have increasing trends and only seven statutes (about 2%) have both increasing regulation and more than fifty rules promulgated since enactment.[77] In sum, there is no systematic empirical evidence that agency interpretations of federal law are late breaking palimpsests of congressional intent. Instead, agencies regulate during the first few years after a statute's enactment and regulatory activity wanes over time.

76. *See supra* Figure 1.
77. *See infra* Figure 2.

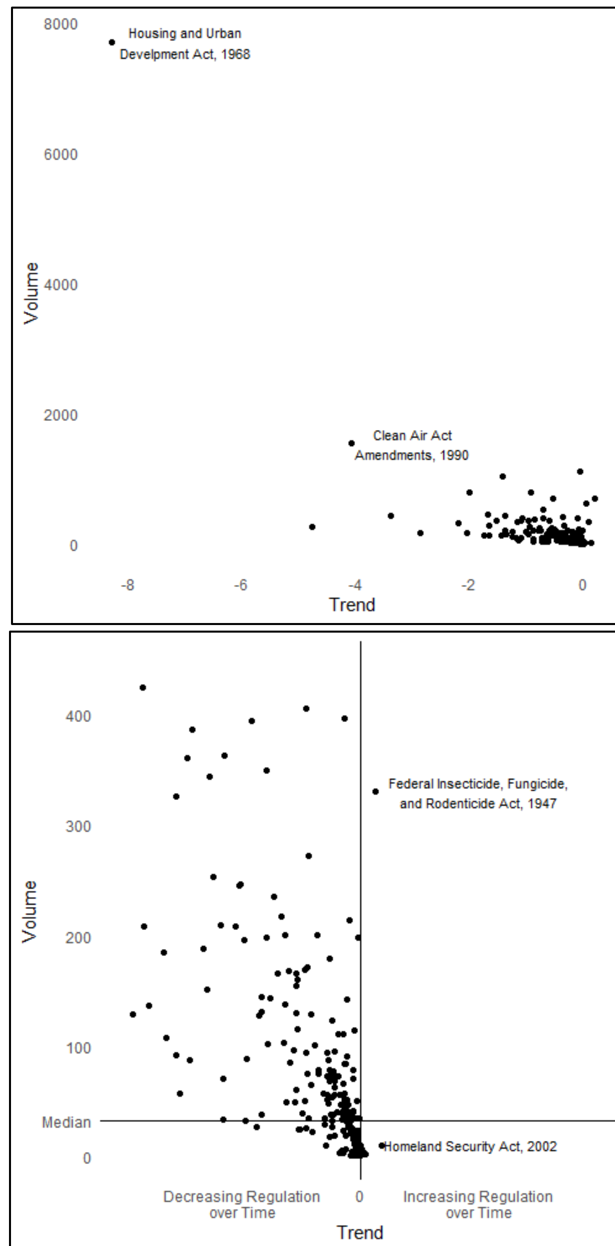

Figure 2. Volume and Trends for Significant Federal Legislation. Upper panel includes all laws and lower panel omits outliers to focus on statutes with more standard regulatory trajectories.

To reinforce this final point, Figure 3 displays a histogram of how long it takes agencies to promulgate half of the rules each statute has had promulgated pursuant to it through 2018.[78] Larger values of this measure indicate that agency regulatory activity continues long after enactment for a given statute, while smaller values indicate that agency regulatory activity diminishes quickly. For example, the Federal Insecticide, Fungicide, and Rodenticide Act of 1947,[79] a clear outlier, has a time to median rule production value of fifty-two, indicating that half of all 330 rules promulgated pursuant to that statute occurred by 1999, during the first fifty-two years after enactment, and half after 1999.[80] The time to median rule production for the typical statute, however, is much shorter.[81] The median value is three, indicating that half of statutes experience the first half of their rules in the first three years after enactment.[82] Further, 75% of statutes experience the first half of their rules in the first six years after enactment, and 90% of statutes experience the first half of their rules in the first ten years after enactment.[83] Again, this suggests that the administrative interpretation of statutes largely stabilizes during the first decade after enactment.

78. *See infra* Figure 3.
79. Federal Insecticide, Fungicide, and Rodenticide Act of 1947, Pub. L. No. 80-104, ch. 125, 61 Stat. 163 (codified at 7 U.S.C. §§ 136–136y).
80. *See infra* Figure 3.
81. *See infra* Figure 3.
82. *See infra* Figure 3.
83. *See infra* Figure 3.

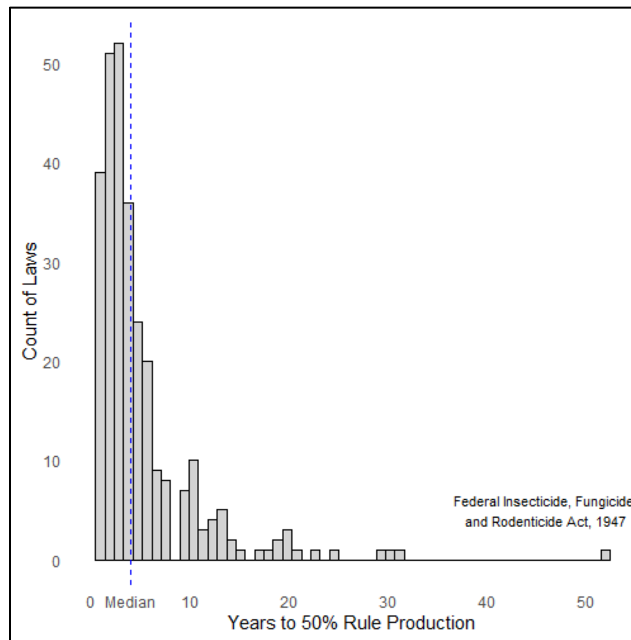

Figure 3. Time to Median Rule Production. Horizontal axis displays the number of years after a statute's enactment that half of all rules promulgated pursuant to that statute have been promulgated. Vertical axis displays the count of laws exhibiting the time to median rule production on the horizontal axis.

All of the inferences drawn from the data presented in Part II point to the same conclusion: that the vast majority of laws do not engender overwhelmingly capacious regulatory regimes. Instead, half of laws have fewer than thirty rules and over 95% of laws have decreasing regulatory productivity over time. This suggests that the pace of regulatory activity pursuant to the average law is characterized by a period of quick and not excessive productivity during the first few years after the statute's enactment, which then tapers off as time passes. Further, among those statutes with increasing regulatory productivity, the rate of increase is miniscule, and the overall volume of rules is low. Notably, 90% of statutes witness the first half of all rules promulgated pursuant to them within a decade after enactment. This indicates that agencies are not with serious frequency reaching decades back in history to find dormant or forgotten statutes pursuant to which they can promulgate new regulations to subvert the wishes of their contemporaneous political principals either in the legislature or elsewhere in the executive branch. In general, agencies do not produce an overabundance of regulations, nor do they continually reinterpret legislation over time. Instead, the typical congressional

enactment sees only a modest level of regulation with most of those few regulations coming in the first few years after a law is enacted.

C. Predicting Volume and Trends in Federal Rulemaking

Section II.B presented descriptive statistics on agency regulatory productivity for significant pieces of legislation enacted beginning in 1947.[84] We showed that on average, statutes engender neither the overproduction of regulations nor a continual bureaucratic reinterpretation of congressional enactments over time.[85] Instead, the typical statute only sees about thirty rules promulgated pursuant to it, and only five percent of statutes enacted since 1947 feature increasing regulatory productivity over time.[86] There remains, however, much variation in the volume of regulation and temporal trends in regulatory productivity across statutes. Section II.C therefore employs multiple regression, a statistical tool to evaluate the impact of several variables on some outcome, while controlling for other factors, to analyze why some statutes result in a higher or lower volume of regulations and increasing or decreasing trends in regulatory productivity.[87]

We evaluate the association between numerous explanatory factors described below and the three quantitative outcomes of interest (dependent variables) described in Section II.B. First, we estimate the effect of our predictors on the *volume* of regulations for each statute (measured as the number of regulations per significant law per year). Second, we estimate the effect of our predictors on the temporal *trends* for regulations pursuant to each statute (measured as the number of additional rules agencies promulgate during each additional year after a law's enactment and described in greater detail in Section II.B). Last, we estimate the effect of our predictors on the *time to the median rule* (measured as the number of years from enactment of a statute to the median rule promulgated pursuant to that statute).[88]

In terms of explanatory (independent) variables, we consider the role played by four groups of determinants in predicting regulatory productivity: political, economic, social, and administrative factors. First,

84. *See supra* Section II.B.

85. *See supra* Section II.B.

86. *See supra* Section II.B.

87. *See generally* GUJARATI, *supra* note 54, at 202–96 (explaining that multiple regression is the best linear unbiased estimator of the relationship between variables).

88. In other words, and as described in Section II.B, to construct this measure, we begin with the entire universe of rules promulgated pursuant to each law in our sample and array them temporally and find the temporal median—i.e., the median if you began counting with the first rule promulgated pursuant to the law and proceeded to count forward sequentially through all the rules promulgated pursuant to that law.

we evaluate the impact of political factors at the time of enactment on regulatory productivity. We consider three political variables: the *partisanship of the President*, the *divergence in preferences between the House and the Senate*, and whether there is *unified government* (i.e., the same political party controls both chambers of Congress and the presidency) or not (i.e., there is divided government). The party of the President may influence regulatory productivity since the President is responsible for appointing and directing the political appointees that head the agencies responsible for promulgating rules pursuant to enacted laws.[89] Since at least the New Deal, the Democrats have tended to advocate for a more active administrative state compared with their Republican opponents, and therefore laws signed by Democratic Presidents may have resulted in higher productivity regulatory regimes in both volume and trends.[90]

Ideological divergence between the House and Senate may influence regulatory productivity because misaligned preferences in the two chambers of Congress could make it difficult to build coalitions large enough to clear the supermajoritarian hurdles in the lawmaking process and therefore result either in more discretion afforded to the executive branch or potentially narrower laws that do not allow for much regulatory activity.[91] We measure ideological divergence between the

89. ELIZABETH D. BROWN & JOHN D. GRAHAM, LEADING THE EXECUTIVE BRANCH: STRATEGIES AND OPTIONS FOR ACHIEVING SUCCESS 19–21 (2007), https://www.rand.org/content/dam/rand/pubs/occasional_papers/2007/RAND_OP181.pdf; *see* Cass R. Sunstein & Adrian Vermeule, *Presidential Review: The President's Statutory Authority over Independent Agencies*, 109 GEO. L.J. 637, 657–59, 660–62 (2021) (comparing presidential power to supervise executive branch agencies with presidential power to supervise independent agencies).

90. *See* Jack M. Beermann, *The Never-Ending Assault on the Administrative State*, 93 NOTRE DAME L. REV. 1599, 1600 (2018) ("Republicans in Congress are generally more receptive to businesses' arguments against excessive regulation and to constitutional attacks on the structure of the administrative state."); *see also* Gary Miller & Norman Schofield, *The Transformation of the Republican and Democratic Party Coalitions in the U.S.*, 6 PERSPS. ON POL. 433, 439–40 (2008) (noting that President Reagan "seemed to care a great deal more about dismantling the economic regulatory machinery of the New Deal than advancing family values," that pro-business Republicans "could live with [social conservatism in the party] as long as they received the Bush tax cuts and the . . . loosening of business regulation" and that by the early twenty-first century, "Democratic Party candidates . . . [were] espousing liberal values on both economic and social issues").

91. *See* William B. Heller, *Political Denials: The Policy Effect of Intercameral Partisan Differences in Bicameral Parliamentary Systems*, 17 J.L. ECON. & ORG. 34, 37 (2001) (implying that intercameral ideological divergence is relevant for legislative productivity since "[i]n the United States, bicameralism matters for policy when different parties control the two chambers of Congress"); Sarah A. Binder, *The Dynamics of Legislative Gridlock, 1947-96*, 93 AM. POL. SCI. REV. 519, 530 (1999) (noting that "[p]erhaps the most important

House and the Senate by finding the absolute value of the difference in the NOMINATE scores for the median member of each chamber. NOMINATE scores are estimates of left-right ideology estimated by scaling all roll call decisions legislators have made throughout their careers.[92]

Unified versus divided government may influence regulatory productivity because in a unified government, majority coalitions in Congress share the party of the President and therefore likely trust the President's administration to implement congressional intentions faithfully.[93] Assuming that is the case, Congress should be more comfortable delegating broad discretion to the executive branch and administrators should be more comfortable promulgating regulations since their copartisans control the congressional committees responsible for oversight. Conversely, during divided government, Congress may be more hesitant to delegate to agencies populated by political appointees from the opposing party, and administrators in the executive branch may be hesitant to promulgate regulations that will be evaluated by contrapartisan congressional committees.[94]

Second, we evaluate the impact of economic factors at the time of enactment on regulatory productivity. We consider three economic

source of intrabranch disagreement [in American politics] is bicameralism," and that bicameralism, "rather than the separation of power between executive and legislative branches, seems particularly relevant to the dynamics of policy gridlock in the postwar period").

92. *See* Royce Carroll et al., *"Common Space" DW-NOMINATE Scores with BootStrapped Standard Errors*, VOTEVIEW.COM (Sept. 2, 2015), https://legacy.voteview.com/dwnomin_joint_house_and_senate.htm (providing estimates of congressional ideology for all members of Congress using the NOMINATE scaling method). NOMINATE (an acronym for "Nominal Three Step Estimation") is a mathematical technique that maps legislators onto a unidimensional scale of political ideology by using their votes on legislation and provides comparable measures of liberalism or conservatism for legislators. Methodological research in the social sciences explains the logic behind creating the NOMINATE estimates. *See generally* Joshua Clinton et al., *The Statistical Analysis of Roll Call Data*, 98 AM. POL. SCI. REV. 355 (2004) (offering an overview of how NOMINATE translates a simple spatial model of legislator behavior into comparable estimates of ideology).

93. *See* Sean Farhang & Miranda Yaver, *Divided Government and the Fragmentation of American Law*, 60 AM. J. POL. SCI. 401, 414–15 (2016) (arguing and finding that under conditions of divided government, Congress was more likely to fragment policy implementation authority across different federal agencies to reduce the likelihood that an ideologically incongruous agency, as opposed to under unified government, when concentrating authority in fewer agencies was likelier); *cf.* Jason A. MacDonald & Robert J. McGrath, *A Race for the Regs: Unified Government, Statutory Deadlines, and Federal Agency Rulemaking*, 44 LEGIS. STUD. Q. 345, 345 (2019) (explaining the theory that unified government lawmakers are less concerned about bureaucratic drift).

94. *See* Farhang & Yaver, *supra* note 93, at 414–15 (suggesting that divided government drives congressional decisions regarding delegated authority).

factors: *inflation*, the *unemployment rate*, and *gross domestic product (GDP) per capita*.[95] Taken together, these three macroeconomic indicators proxy for aggregate economic performance for both citizens and elites. These indicators may matter because an underperforming economy may induce congressional action to correct market failures.[96] For example, the Great Depression spurred a flurry of legislative activity that delegated enormous regulatory power to the executive branch, and the Great Recession during the late 2000s precipitated a series of new laws empowering the executive branch to intervene in the American economy, as well as even creating new federal administrative agencies.[97] We use the raw values of inflation and unemployment but log GDP per capita since dollars have decreasing marginal returns.

Third, we evaluate the impact of social factors at the time of enactment on regulatory productivity. Specifically, we use James

95. Our measure of the inflation rate—the annual percent change in the consumer price index—was accessed via the Federal Reserve. *Consumer Price Index, 1913-*, FED. RSRV. BANK OF MINNEAPOLIS, https://www.minneapolisfed.org/about-us/monetary-policy/inflation-calculator/consumer-price-index-1913- (last visited Oct. 15, 2022). Our measure of the unemployment rate is available with the U.S. Bureau of Labor Statistics. *Databases, Tables & Calculators by Subject*, U.S. BUREAU OF LAB. STAT. (Sept. 8, 2022), https://www.bls.gov/data/ (scroll down to Unemployment; next to "Labor Force Statistics including the National Unemployment Rate," select "Top Picks"; check "Unemployment Rate - LNS14000000"; click "Retrieve Data" at the bottom of the page). Our measure of GDP per capita comes from the U.S. Bureau of Economic Analysis. *Gross Domestic Product*, BUREAU OF ECON. ANALYSIS (Sept. 29, 2022), https://www.bea.gov/data/gdp/gross-domestic-product#gdp.

96. *See, e.g.*, Roberta Romano, *Regulating in the Dark and a Postscript Assessment of the Iron Law of Financial Regulation*, 43 HOFSTRA L. REV. 25, 25–27 (2014) ("[F]oundational financial legislation tends to be enacted in a crisis setting . . . . [L]egislators will find it impossible to not respond to a financial crisis by 'doing something,' that is, by ratcheting up regulation . . . ."); Vincenzo Galasso, *The Role of Political Partisanship During Economic Crises*, 158 PUB. CHOICE 143, 144 (2014) (noting that "in countries with strong financial and labor market regulations, a [financial] crisis brings a sense of urgency by raising the cost of the status quo" and "[h]ence, policy-makers are forced to react and reform").

97. *See* IRA KATZNELSON, FEAR ITSELF: THE NEW DEAL AND THE ORIGINS OF OUR TIME 29–48 (2013) (cataloguing the raft of regulatory reforms proceeding in response to the onset of the Great Depression); Jordan Carr Peterson & Christian R. Grose, *The Private Interests of Public Officials: Financial Regulation in the US Congress*, 46 LEG. STUD. Q. 49, 58–60 (2021) (describing modifications to economic policy in the wake of the Great Recession via the Emergency Economic Stabilization Act of 2008, which created the Troubled Asset Relief Program ("TARP"), and the Auto Industry Financing and Restructuring Act of 2008, colloquially identified as the "auto bailout"); Leonard J. Kennedy et al., *The Consumer Financial Protection Bureau: Financial Regulation for the Twenty-First Century*, 97 CORNELL L. REV. 1141, 1144–49 (2012) (reviewing the genesis of the Consumer Financial Protection Bureau given rampant inadequacies in regulation of lending markets prior to the subprime mortgage crisis and subsequent recession).

Stimson's measure of "MacroIdeology" or *policy mood*,[98] an annual measure of the demand for liberal governance (larger government, liberal social policy, more regulation, etc.) based on public opinion polls conducted since 1952.[99] Larger values of this measure correspond with greater demand for liberal governance.[100] The Stimson policy mood measure thus captures the general public's demand for more regulation, so a more liberal policy mood in a given year may be associated with more rulemaking if a majority of the public pressures or encourages their legislators to enact liberal statutes.[101]

Finally, we evaluate the impact of administrative factors at the time of enactment on regulatory productivity. Specifically, we consider *how many agencies each statute delegates to* since statutes that delegate to many agencies likely result in greater regulatory productivity simply by virtue of the increased opportunity for regulation. We also account for the *total number of employees in the federal government* as a measure of the capacity of the administrative state to produce regulations.[102]

Table 1 presents the results from estimating multiple regression via ordinary least squares on each of the three outcomes. Each cell lists a coefficient (top) and standard error (bottom in parentheses). Coefficients can be interpreted as how much the dependent variable increases with a unit increase in each of the independent variables. Continuous variables that are not easily interpretable have been standardized such that each coefficient identifies how much the dependent variable increases with a one standard deviation increase in the independent variable. For readers less familiar with empirical work, the remainder of this paragraph describes how to interpret each coefficient. *Democratic President* is a binary variable taking the value of zero if the President at the time of

98. *Data*, JAMES STIMSON'S SITE, https://stimson.web.unc.edu/data/ (last visited Oct. 15, 2022). These data, available for download on James Stimson's website at https://stimson.web.unc.edu/wp-content/uploads/sites/9919/2021/06/Mood5220.xlsx, are an extension of data originally appearing in a separate monograph on political ideology in the United States. *See* CHRISTOPHER ELLIS & JAMES A. STIMSON, IDEOLOGY IN AMERICA 45, 50 (2012). Scholars generally define macroideology as "the proportion of self-declared liberals in America, relative to the numbers of self-declared conservatives." *Id.* at 72 n.10.

99. *See* ELLIS & STIMSON, *supra* note 98, at 42 (emphasis added) (citation omitted) (noting that liberal policy views favor having the government do more to "deal with various problems in the society and economy" and that "[d]oing more often entails interfering in the private economy to change its outcomes both by *regulation* and by distributing of benefits"); *Id.* at 44 tbl.3.2, 50 tbl.3.3.

100. *Id.* at 43.

101. *See id.* at 42, 44 tbl.3.2, 50 tbl.3.3.

102. *See Historical Federal Workforce Tables, Executive Branch Civilian Employment Since 1940*, U.S. OFF. OF PERS. MGMT., https://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/historical-tables/executive-branch-civilian-employment-since-1940/ (last visited Oct. 15, 2022).

enactment was a Republican and a one if they were a Democrat, so the coefficient identifies the increase in each dependent variable when changing from a Democratic to a Republican President. *House-Senate Divergence* is a continuous variable that we have standardized, so the coefficient identifies the increase in each dependent variable when the ideological distance between the House and Senate medians increases by a standard deviation. *Unified Government* is a binary variable taking the value of zero if both parties control at least one chamber of Congress or the presidency and the value of one if the same party controls all three, so the coefficient identifies the increase in each dependent variable when changing from divided to unified government. *Inflation* is a continuous variable that we have standardized, so the coefficient identifies the increase in each dependent variable when inflation increases by one standard deviation. *Unemployment* is a continuous variable that we have standardized, so the coefficient identifies the increase in each dependent variable when unemployment increases by one standard deviation. *GDP Per Capita* is a continuous variable that we have logged, so the coefficient identifies the increase in each dependent variable given a doubling in GDP per capita. *Policy Mood* is a continuous variable that we have standardized, so the coefficient identifies the increase in each dependent variable when demand for liberal governance increases by one standard deviation. *Total Federal Employees* is a continuous variable that we have logged, so the coefficient identifies the increase in each dependent variable given a doubling in the federal workforce. Finally, *Agencies Delegated To* is a count variable that we have left in its original scale, so the coefficient identifies the increase in each dependent variable when Congress delegates to one additional agency.

Going through each column in Table 1, we will now discuss the results.[103] The first column reports coefficients estimating the effect of each independent variable on our measure of volume (logged such that coefficients can be interpreted as percent change). We uncover no statistically significant effects for *Democratic President*, *Unified Government*, *Inflation*, *Unemployment*, *GDP Per Capita*, or *Total Federal Employees*, indicating that we fail to find evidence that they influence the total number of rules promulgated pursuant to major legislation. However, we find that a standard deviation increase in *House-Senate Divergence* is associated with an 18.5% decrease in the volume of regulations, suggesting that statutes enacted during periods of intercameral disagreement result in fewer administrative regulations.[104] Similarly, we find that a standard deviation increase in *Policy Mood* is

103. *See infra* Table 1.
104. *See infra* Table 1.

associated with a 20.6% decrease in the volume of regulations, suggesting that statutes enacted during periods of high demand for liberal governance are, somewhat counterintuitively, associated with the promulgation of fewer administrative regulations.[105] Finally, we find that each additional agency Congress delegates to is associated with a 9.4% increase in the volume of regulations.[106]

The second column reports coefficients estimating the effect of each independent variable on our measure of temporal trends. We uncover no statistically significant effects for *Democratic President*, *Unemployment*, *GDP Per Capita*, *Policy Mood*, or *Total Federal Employees*, indicating that we fail to find evidence that these factors influence temporal trends in regulatory productivity pursuant to major legislation. However, we find that a standard deviation increase in *House-Senate Divergence* is associated with a 0.524-unit decrease (about one fewer rule every two years) in the temporal trend of regulations, suggesting that statutes enacted during periods of intercameral disagreement result in regulatory regimes that become unproductive quickly.[107] We also find that statutes enacted during periods of unified government have much more negative trends than those enacted during divided government: statutes enacted during unified government have trends 0.810 more negative than those during divided government (about one fewer rule every fifteen months).[108] Likewise, we find that a standard deviation increase in inflation is associated with a 0.378-unit decrease (about one fewer rule every two and a half years) in the temporal trends of regulations, suggesting that statutes enacted during periods of high inflation result in regulatory regimes that feature an early burst of regulatory activity but not much activity as the law subsequently matures.[109] Finally, we find that each additional agency Congress delegates to is associated with a 0.028-unit increase (about one additional rule every thirty-five years) in the temporal trends of regulations.[110] While this effect is statistically significant, the magnitude of the increase is small enough to be negligible.

105. *See infra* Table 1.
106. *See infra* Table 1.
107. *See infra* Table 1.
108. *See infra* Table 1.
109. *See infra* Table 1.
110. *See infra* Table 1.

Table 1. Predicting Volume and Trends

	Dependent Variable		
	Volume	Trend	Years to Median Rule
	(1)	(2)	(3)
Democratic President	-0.183	0.566	-1.204
	(0.203)	(0.388)	(0.747)
House-Senate Divergence	-0.185**	0.524***	-0.200
	(0.083)	(0.158)	(0.299)
Unified Government	0.062	-0.810**	1.057
	(0.187)	(0.359)	(0.681)
Inflation	0.080	-0.378*	-0.917**
	(0.117)	(0.220)	(0.420)
Unemployment	0.117	-0.111	0.035
	(0.084)	(0.161)	(0.303)
GDP Per Capita	0.199	0.121	-0.776**
	(0.087)	(0.169)	(0.322)
Policy Mood	-0.206*	-0.207	-1.015**
	(0.109)	(0.205)	(0.403)
Total Federal Employees	1.106	0.951	-0.634
	(1.176)	(2.226)	(4.192)
Agencies Delegated To	0.094***	0.028*	0.059*
	(0.009)	(0.016)	(0.030)
Observations	330	325	316
Adjusted R^2	0.316	0.046	0.057

* p <0.1; ** p <0.05; *** p <0.01.

Note: Unit of analysis is the statute. All covariates measured at the time of enactment. Number of observations differs by model because of undefined trends/years to median rule with statutes with no or very few rules. Standard errors reported in parentheses.

Finally, the third column reports coefficients estimating the effect of each independent variable on the number of years to median rule

production.[111] We uncover no statistically significant effects for *Democratic President*, *House-Senate Divergence*, *Unified Government*, *Unemployment*, and *Total Federal Employees*, indicating that we fail to find evidence that any of these potential explanations influence the time to median rule production.[112] However, we find that a standard deviation increase in inflation is associated with a 0.917-year (about eleven-month) decrease in the time to median rule production, suggesting that statutes enacted during periods of high inflation result in regulatory regimes that become unproductive more quickly than those enacted during periods of low inflation.[113] We also find that a doubling of GDP per capita is associated with a 0.776-year (about nine-month) decrease in the time to median rule production; since, however, a doubling in GDP per capita tends to take several decades, in substantive terms, this effect is negligible.[114] We also find that a standard deviation increase in demand for liberal governance is associated with about a one-year decrease in the time to median rule production, suggesting that statutes enacted during periods of high demand for liberal governance result in regulatory regimes that feature an early burst of regulatory activity but not much activity as the law matures.[115] Finally, we find that each additional agency Congress delegates to is associated with a 0.059-year (less-than-one-month) increase in time to median rule production, a negligible effect.[116]

To conclude, we find that political, economic, social, and administrative factors all matter for regulatory productivity in different ways. First, conditions at the time of a statute's enactment structure the overall volume of regulations promulgated pursuant to significant legislation. For instance, intercameral disagreement in Congress is associated with fewer rules after enactment, likely because Congress can agree on less and therefore affords less discretion to agencies that are more aligned with one chamber than the other.[117] Social demand for liberal governance actually results in fewer overall rules, perhaps because Congress has the electoral support to write expansive programs into law rather than relying on agencies in the executive branch to enact such policies via regulation.[118] Unsurprisingly, the more Congress

111. *See supra* Table 1.
112. *See supra* Table 1.
113. *See supra* Table 1.
114. *See supra* Table 1; *GDP Per Capita (Constant 2015 US$)*, WORLD BANK, https://data.worldbank.org/indicator/NY.GDP.PCAP.KD (last visited Feb. 18, 2023).
115. *See supra* Table 1.
116. *See supra* Table 1.
117. *See supra* Table 1.
118. *See supra* Table 1.

fractures implementation authority across agencies, the more rules agencies produce.[119] Second, conditions at the time of enactment structure temporal trends in regulatory productivity. Intercameral disagreement in Congress, inflation, and social demand for liberal governance all result in regulatory regimes that have early bursts of activity and then taper off, whereas fractured implementation authority results in regulatory regimes that linger with agencies more consistently promulgating regulations pursuant to laws as those laws age.[120] Third, conditions at the time of a statute's enactment influence the time to median rule production for significant federal laws. Namely, the inflation rate, social demand for liberal governance, and the relative fragmentation of implementation authority across agencies are all associated with variation in the time to the median rule promulgated pursuant to a given statute.[121]

In sum, these results do not provide an indictment that charges the administrative state with trammeling legislative prerogatives. Rather, during periods of low congressional disagreement, Congress writes laws that result in higher volume regulatory regimes, even when societally there is high demand for legislative action broadening the power of the state to provide social services and structure economic activity.[122] This suggests that Congress actually *intends* to delegate broadly to the executive and that the accumulation of power in the executive branch (whether through expansive delegations of authority to the administration or agencies actively exercising their discretion) is not simply a result of legislative gridlock.

III. ANALYZING DYNAMISM IN REGULATORY PRODUCTIVITY

Part II analyzed the overall regulatory productivity of federal statutes by providing aggregate measures of regulatory *volume* and temporal *trends* in regulation pursuant to significant enactments across the entire period of 1947–2018.[123] Those analyses therefore focused on describing and predicting characteristics of the entire life of a law and offered an overview of how legislation enacted by Congress is carried into effect as its terms are interpreted and implemented by administrative agencies.[124] Part II did not, however, examine the factors that made

119. *See supra* Table 1.
120. *See supra* Table 1.
121. *See supra* Table 1.
122. *See supra* Table 1.
123. *See* discussion *supra* Sections II.B–C.
124. *See* discussion *supra* Sections II.B–C.

agencies more or less likely to promulgate regulations pursuant to significant federal legislation in some years versus others.[125] Part III, by contrast, explores the timing of agency regulations and the impact of changing political conditions over time on the longitudinal development of regulatory regimes. Rather than analyzing characteristics of federal legislation (such as volume and trends) that do not vary over time as they measure static qualities of individual laws, Part III considers dynamism in regulatory productivity by analyzing characteristics of federal regulatory regimes that do vary with time.

Analyzing dynamism in regulatory productivity allows us to better determine whether patterns in regulatory activity that may appear on their face to represent administrative overreach instead originate in the configuration of preferences across lawmaking institutions in the elected branches of the federal government. In other words, this dynamic approach permits us to consider whether popular mandates (i.e., the election of the President and majority coalitions in Congress) structure regulatory outcomes. In Part III, we translate research from the social sciences on the determinants of administrative activity for the context of scholarship in administrative law and provide a dynamic empirical examination of regulatory productivity. Our findings demonstrate that, contrary to normative concerns that the "Deep State" subverts the public will when Congress is too gridlocked to act, agencies actually regulate more when Congress and the President are aligned with them.[126] This implies that agencies are constrained by public opinion via the elected branches of the federal government.

A. Changing Political Conditions and Regulatory Productivity

Agencies implement policies over time, often after the enacting political coalition has been replaced with a new set of actors. As will be further explored in this Article, political conditions at the time of the initial delegatory choice by Congress (examined in depth in Part II) affect agencies' regulatory decisions.[127] However, contemporaneous political circumstances, which change over time, are important constraints on regulatory activity by agencies. Scholarship on rulemaking from the social sciences generally supports the contention that dynamic political conditions affect bureaucratic policymaking. For instance, shifting coalitions in Congress constrain regulatory choices well after enactment

125. *See* discussion *supra* Sections II.B–C.

126. *See* Richard L. Revesz, *Congress and the Executive: Challenging the Anti-Regulatory Narrative*, 2018 MICH. STATE L. REV. 795, 799–806 (2018) (summarizing arguments that congressional gridlock induces executive policymaking).

127. *See infra* Section III.C (describing political factors affecting agency regulations).

through ideologically motivated committee gatekeeping and electorally and ideologically driven oversight activity vis-à-vis agencies.[128] Likewise, changing presidential administrations alter the propensity and manner of regulation by inducing agencies to slow-roll or fast-track rule production,[129] and changing administrations can block the finalization of rules ideologically disconsonant with the administration's preferences.[130]

One especially prominent theory in the social scientific literature on executive-legislative relations is that of congressional fire-alarm oversight.[131] In that formulation, Congress has installed procedural technologies designed to allow interested parties in civil society (such as interest groups, business leaders, and concerned citizens) to alert Congress to agency actions that are detrimental to their interests.[132] Civil society, so the metaphor goes, pulls a "fire alarm."[133] This process is relatively low-cost for Congress since legislators do not have to invest in costly, continual monitoring of the administrative state but instead have created processes that enable their constituents to notify them of agency actions adverse to constituent interests.[134] This ensures that agencies are responsive to Congress due to the threat of congressional ire.[135] The

128. *See* Charles R. Shipan, *Regulatory Regimes, Agency Actions, and the Conditional Nature of Congressional Influence*, 98 AM. POL. SCI. REV. 467, 478 (2004) ("[C]ontemporaneous influence exists, [and] agencies are responsive to congressional preferences.").

129. *See, e.g.*, RACHEL AUGUSTINE POTTER, BENDING THE RULES: PROCEDURAL POLITICKING IN THE BUREAUCRACY 152–53 (2019) ("[R]ules take longer to finalize when OIRA and the agency do not agree on the proposed rule, when the agency faces strong opposition from Congress, and when the agency is more frequently before the courts.").

130. Simon F. Haeder & Susan Webb Yackee, *Presidentially Directed Policy Change: The Office of Information and Regulatory Affairs as Partisan or Moderator?*, 28 J. PUB. ADMIN. RSCH. & THEORY 475, 484 (2018) ("[P]olicy proposals of more liberally oriented agencies appear to be changed more often—and to a greater degree—than are nonextreme agency proposals during OIRA final rule review.").

131. *See generally* Mathew D. McCubbins & Thomas Schwartz, *Congressional Oversight Overlooked: Police Patrols Versus Fire Alarms*, 28 AM. J. POL. SCI. 165 (1984).

132. *See* Mathew D. McCubbins et al., *Administrative Procedures as Instruments of Political Control*, 3 J.L. ECON. & ORG. 243, 244 (1987) (arguing that "[a]dministrative procedures are [a] mechanism for inducing compliance," "[p]rocedural requirements affect the institutional environment in which agencies make decisions and thereby limit an agency's range of feasible policy actions," and "elected officials can design procedures to solve . . . problems of political control").

133. *Id.* at 250.

134. *But cf.* Alex Acs, *Policing the Administrative State*, 80 J. POL. 1225, 1225 (2018) (providing evidence that Congress does engage in "police patrol oversight").

135. *See* McCubbins & Schwartz, *supra* note 131, at 171–73; *accord* Blake Emerson, *Administrative Answers to Major Questions: On the Democratic Legitimacy of Agency Statutory Interpretation*, 102 MINN. L. REV. 2019, 2025–26 (2018) (presenting a "Progressive theory of the administrative state that better captures [the] democracy-enhancing aspect of our administrative procedure" and explaining "how the

Administrative Procedure Act and other laws structuring legislative-administrative interactions create a procedural connection between Congress and agencies that allows Congress to constrain agency actions.[136] Critically, these procedures do not require filibuster- or veto-proof lawmaking coalitions in Congress, and congressional oversight powers can be exercised via simple majorities on relevant congressional committees, individual members' capacity to contact agencies directly, or legislators' ability to embarrass agencies by publicizing perceived malfeasance, thereby damaging agency reputation.[137]

Despite widespread concern that congressional gridlock results in the empowerment of the Deep State, empirical research in social science has shown, on the contrary, that the executive branch is actually most active during periods of unified government.[138] While there are theoretical reasons to expect that agencies could be most active when Congress is least able to respond (i.e., when it is gridlocked), that concern is simply not borne out in the empirical patterns we detail in this Section.[139] Nor is it borne out in previous empirical studies of rulemaking; instead, agencies and the President regulate the most when both chambers of Congress are controlled by the same party as the President because executive branch actors know majority coalitions in Congress agree with

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state can remain democratic, even when unelected bureaucrats make important policy choices").

136. *See* TODD GARVEY & DANIEL J. SHEFFNER, CONG. RSCH. SERV., R45442, CONGRESS'S AUTHORITY TO INFLUENCE AND CONTROL EXECUTIVE BRANCH AGENCIES 11–13 (2021). Once Congress creates an agency, the procedural requirements laid out in the Administrative Procedure Act, 5 U.S.C. §§ 551–559, will generally govern the agency's conduct.

137. *See, e.g.*, Kenneth Lowande, *Who Polices the Administrative State?*, 112 AM. POL. SCI. REV. 874, 878–80 (2018) (showing members of Congress frequently contact agencies about policy matters); Kenneth Lowande, *Politicization and Responsiveness in Executive Agencies*, 81 J. POL. 33, 45–46 (2018) ("[M]ajority party legislators tend to have their requests [to agencies] returned earlier."); Alexander Bolton, *Gridlock, Bureaucratic Control, and Nonstatutory Policymaking in Congress*, 66 AM. J. POL. SCI. 238, 252 (2022) ("Congress is not altogether helpless in the face of increasing gridlock and can cope (at least in part) by using nonstatutory means to direct agencies."). On reputation, see Daniel P. Carpenter & George A. Krause, *Reputation and Public Administration*, 72 PUB. ADMIN. REV. 26, 26 (2012) (citations omitted) ("[P]ublic administrators at all levels of an organization spend much of their time attempting to cultivate a reputation that will allow them not only to accrue autonomy, but also to offer a protective shield in the presence of opposition in the form of hostile external audiences.").

138. *See, e.g.*, WILLIAM G. HOWELL, POWER WITHOUT PERSUASION: THE POLITICS OF DIRECT PRESIDENTIAL ACTION 78, 97–100 (2003) ("For each two-year interval that different parties govern the presidency and Congress . . . five fewer significant executive orders are issued . . . .").

139. *See infra* Section III.C.

them ex ante.[140] We argue that the translation of political conditions into administrative outcomes is evidence that agencies are responsive to the popular will.

Two sets of political conditions are especially salient theoretically for explaining variation in the timing of regulatory activity: (1) partisan control of Congress and the presidency, and (2) ideological congruence between contemporaneous majority coalitions in Congress and majority coalitions in Congress at the time a statute was enacted. First, partisan majorities in Congress and partisan control of the presidency matter because of the supervisory role Congress plays over the executive branch.[141] During divided government (i.e., when at least one chamber of Congress is controlled by the party opposite the President), Presidents are constrained by the threat of congressional investigation and sanction.[142] Agencies, too, are constrained when presidential contrapartisans control at least one chamber of Congress because the committees responsible for overseeing and appropriating funds to executive agencies can sanction bureaucratic actors if they act in ways contrary to the will of the chamber majority.[143] Likewise, Presidents are likely to attempt to undo or revise executive decisions made by their contrapartisan predecessors, so when the contemporaneous President is from the opposite party of the President at the time of enactment, agencies are likely to produce new regulations that reflect the new governing coalitions.[144] The confluence of unified government and a

140. *See, e.g.*, Jason Webb Yackee & Susan Webb Yackee, *Divided Government and US Federal Rulemaking*, 3 REGUL. & GOVERNANCE 128, 129 (2009) (showing "during periods of divided government, the bureaucracy . . . issues fewer rules than under unified government").

141. *See, e.g.*, DOUGLAS L. KRINER & ERIC SCHICKLER, INVESTIGATING THE PRESIDENT: CONGRESSIONAL CHECKS ON PRESIDENTIAL POWER 21–73 (2016) (finding that "divided party control has a strong impact on investigative activism in the House" and "investigations have become almost exclusively a feature of divided government"); HOWELL, *supra* note 138, at 97 ("For each two-year interval that different parties govern the presidency and Congress . . . five fewer significant executive orders are issued . . . .").

142. *See* HOWELL, *supra* note 138, at 86, 97; *see also* KRINER & SCHICKLER, *supra* note 141, at 26; McCubbins et al., *supra* note 132, at 246 (discussing "the principal mechanisms for influencing bureaucratic implementation . . . are monitoring and sanctions. Congress and the president can reward or punish agencies for their policy choices").

143. *See, e.g.*, MacDonald & McGrath, *supra* note 93, at 346 ("[A]gencies finalize rules more quickly when there is unified government . . . ."); David C.W. Parker & Matthew Dull, *Divided We Quarrel: The Politics of Congressional Investigations, 1947-2004*, 34 LEGIS. STUD. Q. 319, 331 (2009) ("Divided control is associated with more and longer investigations in the House of Representatives . . . .").

144. Sharece Thrower, *To Revoke or Not Revoke? The Political Determinants of Executive Order Longevity*, 61 AM. J. POL. SCI. 642, 652 (2017) ("[E]xecutive orders face increased hazards of revocation when encountering current presidents of opposing parties or ideologies.").

President of the opposite party of the enacting President, therefore, should result in the most regulatory activity if agencies are responsive to changing political conditions.

Second, ideological mismatch between majority coalitions that enacted a statute and contemporaneous majority coalitions likely influence regulatory productivity.[145] In particular, contemporaneous Congresses with strong ideological differences from enacting Congresses can either pass new laws overturning old statutory schemes or constrain the behavior of agencies attempting to implement old laws.[146] Indeed, Congress is most likely to repeal prior laws when newly elected majority coalitions are distinct from the enacting outgoing coalitions.[147] Additionally, since some oversight activity is driven by ideological agreement between congressional committees and the executive agencies they supervise, committees should constrain the activity of agencies attempting to implement laws that are out of step with contemporaneous ideological conditions in Congress.[148]

B. Empirical Approach: The Timing of Federal Rulemaking

To examine empirically the influence of changing political condition on the timing of federal rulemaking and dynamism in regulatory productivity, we again employ multiple regression. We expanded our dataset such that each observation is a law-year (i.e., rather than the universe of observations being the set of significant federal enactments since 1947 as in Part II where the universe of observations is the set of law-year dyads comprising all laws analyzed earlier and all years from 1947–2018). Each row of our dataset contains information on how many rules agencies promulgated pursuant to a given law in each year from its enactment to 2018. Since we now have repeated observations of the same statutes over time, however, more exacting methodological demands are

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145. *See* JORDAN M. RAGUSA & NATHANIEL A. BIRKHEAD, CONGRESS IN REVERSE: REPEALS FROM RECONSTRUCTION TO THE PRESENT 21 (2020) (arguing legislative repeals are most likely "when the majority party wins control of Congress after a long stint in the minority").

146. *See id.*

147. *See* Jordan M. Ragusa & Nathaniel A. Birkhead, *Parties, Preferences, and Congressional Organization: Explaining Repeals in Congress from 1877 to 2012*, 68 POL. RSCH. Q. 745, 745–46 (2015) (analyzing repeals of major legislation in Congress for over a century and finding that repeal of existing statutes is more likely given increased agenda control by legislative majorities and particularly when a party has been out of majority power for a longer time).

148. *See, e.g.*, Shipan, *supra* note 128, at 471–72, 478. *But see* Lowande, *Who Polices the Administrative State?*, *supra* note 137, at 875 ("Contrary to the intuitive notion that ideological disagreement increases oversight, I find robust evidence that it has a negligible effect.").

necessary to draw valid inferences. First, we use statute fixed effects—indicator variables for each statute—which ensure that we are only examining how changes in each independent variable within the same statute affect changes in regulatory productivity for that statute.[149] The statute fixed effects control for any unobservable and observable statute-level factors that do not change over time, such as characteristics of the statute's enacting coalition or the written content of the statute itself. Second, we include a linear and quadratic time trend to account for any global changes in regulatory productivity that increase or decrease over time at either an increasing or decreasing rate.[150] Finally, we cluster all standard errors at the level of the statute since statistical errors within statutes are correlated.[151]

With this methodological approach, we estimate the effect of several independent variables on the logged count of rules promulgated in each year after a statute's enactment.[152] Specifically, we include an indicator variable for *Unified Government* at the time of rule promulgation, which takes the value of one if the same party controls the House, Senate, and presidency, and zero otherwise.[153] We include an indicator variable for *Different Party President* at the time of rule promulgation, which takes the value of one if the President when a statute was enacted was from a different party than the President at the time of rule promulgation.[154] We also interact these two variables (i.e., multiply them together) to estimate how different combinations of unified government and the partisanship of the President influence dynamism in regulatory productivity.[155]

149. *See, e.g.*, JEFFREY M. WOOLDRIDGE, ECONOMETRIC ANALYSIS OF CROSS SECTION AND PANEL DATA 247–91 (2002) (contending fixed effects are appropriate when analyzing repeated observations of the same unit over time and the fixed effect estimator "is also called the within estimator because it uses the time variation within each cross section").

150. *See generally* Kosuke Imai & In Song Kim, *When Should We Use Unit Fixed Effects Regression Models for Causal Inference with Longitudinal Data?*, 63 AM. J. POL. SCI. 467 (2019) (employing linear and quadratic time trends in various fixed effects regression models).

151. *See, e.g.*, Justin Esarey & Andrew Menger, *Practical and Effective Approaches to Dealing with Clustered Data*, 7 POL. SCI. RSCH. & METHODS 541, 541 (2019) ((citations omitted) ("[T]he problems that clustered data present for statistical analysis are well-known to political scientists, and [cluster-robust standard errors] are extremely simple to estimate and useful when added to a research design involving fixed effects estimation.").

152. *See supra* Part II. In these analyses, we once again employ the logarithm-transformed measure of the count of rules for the reasons discussed therein.

153. *See supra* Section II.C.

154. *See supra* Section II.C.

155. *See* Bear F. Braumoeller, *Hypothesis Testing and Multiplicative Interaction Terms*, 58 INT'L ORG. 807, 818 (2004) ("When independent variables are multiplied together to model interaction, a set of coefficients jointly describes the behavior of the variables.").

Moving to Congress, we include a continuous variable *Coalition Mismatch*, which is a measure of how different the Congress that enacted a statute is from the Congress at the time of rule promulgation. Specifically, again using estimates of congressional ideology from NOMINATE, we take the average of the absolute value of the distance between the enacting and rulemaking House median and between the enacting and rulemaking Senate median, such that larger values indicate that the rulemaking Congress is more ideologically distinct from the enacting Congress.[156] This variable is standardized so the coefficient can be interpreted as the percent change in rules promulgated given a standard increase in coalition mismatch. We also include *Policy Mood*, *Inflation*, *GDP Per Capita*, *Unemployment*, and *Federal Employees* at the time of rule promulgation, all measured the same way as in Part II.[157]

C. *The Effect of Political Conditions on Regulatory Productivity*

Table 2 displays the estimated effect of each independent variable on our dependent variable, the logged number or rules promulgated pursuant to each law in each year.[158] The first three variables, *Unified Government*, *Different Party President*, and their interaction, are a bit complicated to interpret, so we provide an explanation here. Each variable is a binary variable taking the value of one if the condition is met (*Unified Government* or *Different Party President*) and zero otherwise. The interaction of the two—which, as noted earlier, simply multiplies the two variables together for each observation—takes the value of one if both conditions are met and zero otherwise. Therefore, the coefficients can be interpreted as the difference in the logged count of rules promulgated relative to the baseline category (*Divided Government* and *Same Party President*).

156. *See* Carroll et al., *supra* note 92.
157. *See supra* Section II.C.
158. *See infra* Table 2.

	Same Party President	Different Party President
Unified Government	*Moderate Regulatory Productivity*	*Most Regulatory Productivity*
Divided Government	*Least Regulatory Productivity*	*Moderate Regulatory Productivity*

Figure 4. Explanation of Interaction Term. The columns reflect different values of the Different Party President variable, whereas the rows reflect different values of the Unified Government variable. The cells represent the theoretical expectations regarding regulatory productivity given different combinations of these two variables.

To more thoroughly illustrate the expectations associated with the different values of the interaction term, Figure 4 presents the four possible values the interaction term could take and what regulatory outcomes should theoretically be associated with each combination of values for the independent variables being interacted.[159] We expect the most regulatory productivity when there is unified government but the contemporaneous President's party differs from the party of the President at the time a given statute was enacted because unified government gives agencies the political opportunity structure to regulate in a way that allows the current administration to advance its policy agenda, which is more likely to be different from the policy goals of a President from the opposing party. By contrast, we expect the least regulatory productivity in conditions of divided government when the contemporaneous President shares the party of the President at the time a given statute was enacted. This follows from the finding in extant scholarship that the promulgation of new rules is less likely during divided government[160] and that Presidents who are copartisans of the President when a policy was enacted are less likely to face political demands to revise their copartisans' policies.[161] For the cells in the table on the opposite diagonal—when there is unified government but a President from the same party as the President at the time of a law's enactment and when there is divided government but a President from the opposing party of the President at the time of a law's enactment—the

159. *See supra* Figure 4.
160. *See, e.g.*, Yackee & Yackee, *supra* note 140, at 129.
161. *See* Thrower, *supra* note 144, at 652.

potential effect on regulatory productivity is somewhat less clear as there are bivalent theoretical expectations associated with the values taken by the key independent variables composing the interaction term.

The first coefficient indicates that during periods of unified government, when the current President is from the same party as the President who was in office when the statute was enacted, agencies produce about 11.2% fewer rules than during periods of divided government when the current President is from a different party from the President who was in office when the statute was enacted.[162] The second coefficient indicates that during periods of unified government when the party of the current President is different from that of the President who was in office when the statute was enacted, agencies produce about 15.5% fewer rules than during periods of divided government when the current President is from the same party as that of the President at the time of enactment.[163] The third coefficient, the interaction, indicates how the effects of the individual components (*Unified Government* and *Different Party President*) change when the other condition is met.[164] So, during periods of unified government when the President is from a different party than that of the President during enactment, agencies produce 11.4% (0.226–0.112) more rules than during periods of unified government when the President is from the same party as that of the President during enactment; and during periods of divided government when the President is from a different party than that of the President during enactment, agencies produce 7.1% (0.226–0.155) more rules than during divided government when the party of the current President is the same as that of the enacting President.[165] Therefore, the condition where agencies produce the most rules is when there is unified government and the current President is from a different party from the President at the time of enactment. This implies that the confluence of a congressional regime friendly to the administration and administrative preferences antithetical to those of the administration that was first responsible for implementing a statute is most conducive to regulatory production.

162. *See infra* Table 2.
163. *See infra* Table 2.
164. *See infra* Table 2.
165. *See infra* Table 2.

Table 2. Predicting Timing of Regulatory Productivity

	Dependent Variable
	Count of Rules Promulgated
	(1)
Unified Government	-0.112***
	(0.028)
Different Party President	-0.155***
	(0.026)
Unified Government ×	0.226***
Different Party President	(0.052)
Coalition Mismatch	-0.051***
	(0.012)
Policy Mood	-0.031***
	(0.010)
Inflation	0.035**
	(0.014)
GDP Per Capita	-0.548**
	(0.227)
Unemployment	0.007
	(0.010)
Federal Employees	-0.414**
	(0.175)
Law Fixed Effects	YES
Time Trends	YES
Observations	11,209
Adjusted R^2	0.601

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Note: Unit of analysis is the statute-year. Standard errors clustered by statute reported in parentheses.

The coefficient on *Coalition Mismatch* indicates that when the contemporaneous Congress is more misaligned with the enacting

Congress, agencies produce fewer regulations.[166] The effect is small but notable. A standard increase in coalition mismatch between enacting and current Congresses is associated with about a 5.1% reduction in rulemaking.[167] This could be because when a current Congress is misaligned with a Congress that enacted some statutory regime in the past, that Congress is capable of passing new legislation which agencies then must interpret instead of the old statute. This would be evidence that agencies are not overreaching but instead responsive to changing political conditions in Congress.[168]

To display our results visually, Figure 5 plots the estimates and standard errors for the four main independent variables from Table 2.[169] Each point plots the coefficient from Table 2, the thick error bars represent ninety percent confidence intervals, and the thin error bars represent ninety-five percent confidence intervals.[170] Here, it can clearly be seen that the confluence of unified government and a contemporaneous President that is of the opposite party of the enacting President results in agencies producing the most rules and that all other conditions, including periods of high mismatch between contemporaneous and enacting coalitions, result in fewer overall regulations.

166. *See supra* Table 2.
167. *See supra* Table 2.
168. The remaining variables are not of direct interest to our arguments and we therefore do not discuss them.
169. *See infra* Figure 5.
170. *See, e.g.*, KOSUKE IMAI & LORI D. BOUGHER, QUANTITATIVE SOCIAL SCIENCE: AN INTRODUCTION IN STATA 291 (2021) ("[C]onfidence intervals give a range of values that are likely to include the true value of the parameter [and] . . . over a hypothetically repeated data-generating process, confidence intervals contain the true value of the parameter with the probability specified by the confidence level.").

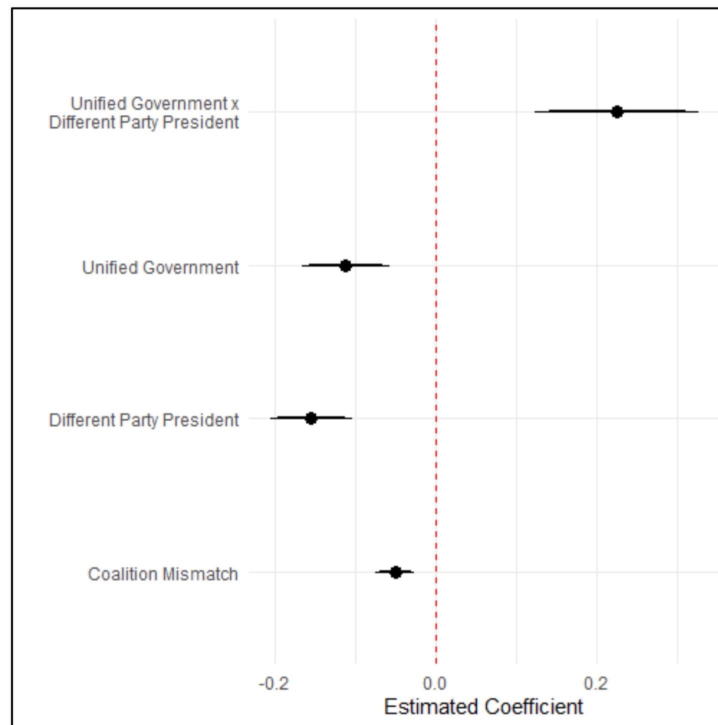

Figure 5. Predicting Timing of Regulatory Productivity. Derived from Table 2. Thick error bars represent ninety percent confidence intervals and thin error bars represent ninety-five percent confidence intervals.

By way of conclusion, we find that regulatory productivity ramps up and slows down depending on changing political conditions in the elected branches of the federal government and that agencies are politically responsive insofar as they produce the most regulations when the elected branches are united ideologically with them. Agencies are most productive in the regulatory sphere when presidential and congressional conditions align to facilitate action. When both chambers of Congress are controlled by a majority of the same party as the President, and that party is different from the party of the President when a statute was enacted, agencies regulate the most, consistent with our theoretical expectations.

At first blush, increased regulatory activity may seem like a fingerprint of the Deep State, but upon closer examination, it appears that increases in the volume of rules agencies promulgate occur when the people have given the federal government a mandate through electing majorities in both chambers of Congress and the presidency.

Additionally, agencies regulate *less* when the contemporaneous coalition in Congress is mismatched ideologically with the coalition that enacted a statute, implying that electorally induced changes in the ideological makeup of Congress translate into less implementation of laws enacted by Congresses of the past that are out of step with contemporaneous public opinion. This subverts the notion common in legal and philosophical critiques of administrative governance that agencies regulate without regard for the popular will, as the empirical realities of regulatory productivity analyzed here show that agencies most commonly promulgate new regulations pursuant to laws enacted by governing coalitions with policy preferences similar to those of the contemporaneous governing regime. Thus, our findings suggest any misgivings about expansive agency discretion that rely on the assumption that agencies promulgate regulations to contravene the priorities of their political opponents are empirically unsupported. Further, agencies regulate quickly pursuant to new statutes and regulate infrequently pursuant to statutes enacted by ideologically incongruent coalitions from the past, suggesting that when Congress delegates new authority to the administrative state, agencies act on those new delegations that represent the contemporaneous popular will.

IV. GROUNDING ANALYSES OF THE DEEP STATE IN EMPIRICAL REALITY

In addition to our arguments based on empirical findings presented in this Article, we contend that scholars and practitioners can learn from our approach and would do well to apply it to any studies of the administrative state that rely on quantitative claims, whether implicit or explicit. Although we decline to make normative claims about the optimal level of regulation, we argue that the recommendations described in Part IV should be consulted before future scholars or practitioners advance normative claims that rely in some regard on empirical evidence regarding regulatory outputs. This Part offers several methodological and epistemological paths forward for future scholarship and discourse on lawmaking in the administrative state. First, we encourage scholars and practitioners to identify and define theoretical concepts like "regulatory overreach" or "Deep State," and recommend the integration of theory and empirics to ensure that any evidence leveraged in condemnation of administrative governance or regulation speaks directly to theoretical concepts of interest, and therefore that theoretical claims supported by empirical evidence are sound. Second, we urge scholars and practitioners to be mindful of case selection when employing examples of regulatory activity in their arguments and counsel them not simply to proffer cases as evidence that fit the preconceived contours of their

narrative and instead to focus on more typical or representative cases of regulatory productivity. Finally, we provide several paths forward for scholarship in administrative law that implement our suggestions.

A. Clarify Theoretical Concepts

Scholars and practitioners should clearly identify and define theoretical concepts relevant for their arguments. When making claims about the proper level of regulation that involve allegations of overregulation, underregulation, administrative overreach, or even the Deep State, scholars and practitioners should clarify what precisely they mean. For instance, how do critics of administrative governance identify what level of regulation is excessive? And how do statist proponents of additional regulation identify an underregulated area of American law? Likewise, denunciations of the administrative state claiming administrative overreach should establish whether they are opposed to agency participation in American lawmaking altogether or simply believe there is an appropriate role for administrative agencies in carrying significant federal statutes into legal effect.

The approach and empirical findings presented in this Article have the potential to dramatically alter theoretical conceptions regarding the optimal level of regulation. For instance, using our data on the volume and temporal trends of federal regulatory activity, both advocates and opponents of administrative governance could more stably moor their respective arguments regarding regulatory productivity in empirical reality. Further, the findings in Part III—in which we offer a dynamic portrait of regulatory productivity that predicts the periods during which agencies are most likely to promulgate new rules—upend some of the most entrenched empirical misconceptions that undergird critiques of regulatory governance.[171] Specifically, critics charge that agencies exploit congressional gridlock to usurp lawmaking authority more appropriately exercised by the legislature.[172] Since, however, we find that regulatory productivity is higher pursuant to more recent laws,[173] agencies appear to form new policies using legislation that reflects the priorities of the contemporary governing coalition. What is more, since regulatory productivity is greater pursuant to statutes enacted by governing coalitions ideologically aligned with the contemporaneous government,[174] it does not follow that agencies reach into the dusty catacombs of history

171. *See, e.g.*, Stewart, *supra* note 5, at 329.
172. Revesz, *supra* note 126, at 814.
173. *See supra* Section III.C.
174. *See supra* Section III.C.

in search of legislation they can use to subvert the goals of the contemporaneous congressional regime and thus override the popular will. Taking stock of the empirical realities regarding regulatory productivity presented here will lend epistemological legitimacy to arguments about the scope and exercise of administrative power.

B. Avoid Cherry-Picking

In addition to establishing a stronger ligature between theories about administrative governance and empirical findings on regulatory productivity, the approach described here offers lessons about case selection in evaluations of the administrative state. This Article, by presenting exhaustive data on the volume of regulation promulgated pursuant to significant federal legislation since 1947 and by analyzing the conditions under which increased regulatory productivity is most likely, provides a comprehensive battery of descriptive and inferential statistical evidence regarding the exercise of administrative power.

To these ends, among the most valuable contributions here are the measures of central tendency (e.g., the median number of rules per statute, the average time to median rule production per statute, etc.) which give scholars and practitioners alike a comparative scale regarding the operation of regulatory authority pursuant to significant legislative enactments. For example, legislators, judges, advocates, or scholars leveraging quantitative characteristics of the regulatory regime generated pursuant to a particular statute—as in the anecdote regarding Frank Murkowski and RCRA supplied in the Introduction—can no longer plead ignorance of whether the law they have elected to fixate on for rhetorical effect is representative of the typical outputs from the regulatory process.[175] Instead, the approach articulated here mitigates against cherry-picking extreme cases that unduly inflate the extent of regulatory authority by facilitating comparisons of the regulatory regime associated with a given law to average tendencies in regulatory productivity across seven decades of significant legislative enactments and their affiliated regulatory outputs.[176] While it may bear attention that some statutes give rise to unusually fruitful regulatory regimes, our approach demonstrates that such outliers are indeed unusual and as such should not be tendered as evidence to indict the administrative state in its entirety for regulatory overreach. Rather, both critics and proponents of the administrative state now have the empirical tools to assess the comparative scale of the regulatory output associated with a

175. *See supra* notes 11–14 and accompanying text.
176. *See supra* Section II.B.

given law. Though these measures may do little to dislodge preexisting philosophical commitments regarding administrative power, they nevertheless provide an empirical basis for claims about the actual exercise of regulatory authority by administrative agencies. As a result, the approach presented here requires intellectual honesty by encouraging transparency in assessments of administrative rulemaking.

C. Toward an Empirical Administrative Law

To complement our general suggestions on how this Article can inform debates about administrative power, we also detail several specific recommendations for future scholarship in administrative law that seek to integrate rigorous empirical techniques with a sophisticated understanding of legal doctrine. First, future work should supplement quantitative scholarship on tendencies in regulatory productivity like that presented here with additional information on specific rules and regulations. For instance, not all regulations promulgated by federal administrative agencies are created equal: "[r]egulation may mean anything from control of conglomerate mergers to the number of bruises on frozen cherries."[177] Therefore, subsequent work might consider employing regulatory impact analyses or other characteristics of specific administrative rules to evaluate not only when and under what conditions regulation generally speaking is most likely but also the conditions that give rise to especially significant regulatory obligations. This would provide a more contextualized understanding of regulatory productivity that takes stock of heterogeneity in federal rulemaking.

Future research should also employ qualitative analyses, such as in-depth case studies of the regulatory regimes associated with particular statutes, to lend additional color to the quantitative findings we have presented.[178] This mode of inquiry would involve, among other things, analyzing the legislative process at the time of a statute's enactment (such as political conditions in Congress, the executive branch, and the judiciary, public demand for changes to existing public policy, and the preferences of stakeholders, including relevant interest groups and advocacy organizations), components of the rulemaking process itself

177. Lawrence M. Friedman, *On Regulation and Legal Process*, *in* REGULATORY POLICY AND THE SOCIAL SCIENCES 111, 112 (Roger G. Noll ed., 1985).

178. This recommendation is consonant with Andrew Hammond's call for employing detailed case studies to analyze the state of American federalism in order to achieve "a better understanding of which areas of law are best suited for which level of government" and to spur "scholars to tweak and adapt their accounts as thick descriptions of substantive law illuminate cracks in their theories." Andrew Hammond, *Welfare and Federalism's Peril*, 92 WASH. L. REV. 1721, 1726–27 (2017).

(such as internal agency procedures and the notice-and-comment requirement), and ex post oversight of agencies' implementation choices (such as congressional oversight, requests for revision by the Office of Information and Regulatory Affairs, and judicial review of agency actions).

CONCLUSION

This Article puts arguments about administrative authority on empirically solid footing. By supplying a systematic, empirical accounting of regulatory productivity that offers readily interpretable and comparable measures of volume and temporal trends in federal rulemaking, we provide a corrective to sensationalized and unrepresentative narratives of administrative malfeasance. Specifically, this Article announces a framework for the rigorous, quantitative evaluation of rulemaking by administrative agencies that allows for a sense of comparative scale across federal regulatory regimes.

The findings presented here contradict polemics against the so-called Deep State that suggest federal administration comprises a sinister cabal undermining the core values of the American constitutional order. Rather, our comprehensive analyses of regulatory productivity pursuant to significant federal legislation since the rise of the modern administrative state indicate that agencies only promulgate about thirty rules pursuant to the typical statute,[179] and that the overwhelming majority of regulatory activity proceeds pursuant to laws enacted by governing coalitions whose preferences are congruent with the contemporaneous popular will.[180] We can assert this with certainty since regulatory productivity drops off precipitously soon after a statute's enactment,[181] and this decline in productivity is especially steep when newly elected legislators in Congress do not share the ideological preferences of their predecessors responsible for that statute's enactment.[182] Additionally, agencies regulate less when Congress is opposed to the aims of the presidential administration during divided government, suggesting that agencies are either responsive to or constrained by democratically elected majorities in the legislative branch.[183]

179. *See supra* Section II.B.
180. *See supra* Section III.C.
181. *See supra* Section II.B.
182. *See supra* Section III.C.
183. *See supra* Section III.C.

The epistemological advances effected here represent a preface in the emergent body of literature on empirical administrative law that employs exacting statistical techniques to analyze exhaustive data on the administrative state. If incorporated into the orthodoxy of administrative law, this nascent scholarship will transform our collective understanding of administrative governance by abandoning rhetorical sleights of hand in favor of evidentiary objectivity.