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Regulatory Bundling

ABSTRACT. Regulatory bundling is the aggregation or disaggregation of legislative rules by administrative agencies. Agencies, in other words, can bundle what would otherwise be multiple rules into just one rulemaking. Conversely, they can split one rule into several. This observation parallels other recent work on how agencies can aggregate adjudications and enforcement actions but now focuses on legislative rules, the most consequential form of agency action. The topic is timely in light of a recent executive order directing agencies to repeal two regulations for every new one promulgated. Agencies now have a greater incentive to pack regulatory provisions together for every two rules they can repeal.

This Article explores the positive determinants and normative implications of regulatory bundling and unbundling. The empirical analysis reveals that agencies have been increasingly engaging in regulatory bundling for the last two decades. More generally, bundling behavior varies widely across different administrative agencies, and agencies appear to include more subjects in their final – as opposed to proposed – rules. These findings, in turn, raise significant normative concerns that could be addressed through a suite of tools novel to the administrative state: singlesubject rules, line-item vetoes, and innovative uses of more traditional doctrines of judicial review. Whether some of these tools should be adopted, however, requires further empirical assessment of regulatory bundling's causes and consequences.

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INTRODUCTION

Administrative agencies can make policy in myriad ways. They can, for example, choose their form of action: whether a rule, an adjudication, an enforcement, or a guidance document.¹ For decades, commenters have analyzed the positive and normative trade-offs of each.² More recently, scholars have become attentive to the ways in which these forms can be aggregated. Some have debated adjudicatory aggregation through administrative class actions.³ Others have remarked upon "crackdowns," or the ways in which enforcement actions can be pursued all at once.⁴ This lens has shed new light on agency discretion by drawing upon rich analogies to other areas of the law, such as civil procedure, where aggregation and its discontents are common themes.⁵

Puzzling, then, that more attention has not been paid to the ways in which agencies can aggregate perhaps the most consequential tool at their disposal: legislative rules.⁶ Like statutes, legislative rules bind entire classes of individu-

- 2. See, e.g., id. at 1396-97; Jerry L. Mashaw & David L. Harfst, Regulation and Legal Culture: The Case of Motor Vehicle Safety, 4 YALE J. ON REG. 257, 272-73 (1987); Glen O. Robinson, The Making of Administrative Policy: Another Look at Rulemaking and Adjudication and Administrative Procedure Reform, 118 U. PA. L. REV. 485, 512 (1970); David L. Shapiro, The Choice of Rulemaking or Adjudication in the Development of Administrative Policy, 78 HARV. L. REV. 921 (1965).
- 3. See, e.g., Shannon M. Grammel & Joshua C. Macey, *The Costs of Aggregating Administrative Claims*, 70 STAN. L. REV. ONLINE 123 (2018); Michael Sant'Ambrogio & Adam S. Zimmerman, *The Agency Class Action*, 112 COLUM. L. REV. 1992, 1999 (2012) (arguing "that agencies should adopt aggregation procedures, like a civil class action, to resolve common claims raised by large groups of people in administrative courts"); Michael Sant'Ambrogio & Adam S. Zimmerman, *Inside the Agency Class Action*, 126 YALE L.J. 1634 (2017).
- 4. See, e.g., Mila Sohoni, Crackdowns, 103 VA. L. REV. 31, 33 (2017) (defining a "crackdown" as "an executive decision to intensify the severity of enforcement of existing regulations or laws as to a selected class of offenders or a selected set of offenses"); Steven Wisotsky, Crackdown: The Emerging "Drug Exception" to the Bill of Rights, 38 HASTINGS L.J. 889, 894 (1987) (describing an "extraordinary enforcement program" against drugs that "set new records in every category of measurement drug seizures, investigations, indictments, arrests, convictions, and asset forfeitures").
- 5. See, e.g., Samuel Issacharoff, Private Claims, Aggregate Rights, 2008 SUP. CT. REV. 183.
- 6. To be sure, the legal literature has recognized that rules can be bundled and split, but has not given the topic sustained attention. See, e.g., Cary Coglianese & Daniel E. Walters, Agenda-Setting in the Regulatory State: Theory and Evidence, 68 ADMIN. L. REV. 865, 876 (2016) (observing that some "statutes give greater discretion to agencies to pace their progress in implementing bundles of rules by simply requiring the agency to finish all of its rulemaking responsibilities by a certain date"); Jennifer Nou, Agency Self-Insulation Under Presidential

See M. Elizabeth Magill, Agency Choice of Policymaking Form, 71 U. CHI. L. REV. 1383, 1384 (2004) (noting that a "legislative rule, administrative adjudication, judicial enforcement, or guidance" document usually comprises the "standard set" of agency policy-making forms).

als.⁷ And they too can be combined in multiple ways – a phenomenon that we refer to as *regulatory bundling*. Regulatory bundling refers to the ability of an agency to choose the scope of a single rulemaking – the number of discrete issues to resolve at a given point in time. Bundling decisions can occur at all stages of the rulemaking process, from drafting to implementation to litigation. For example, an agency can bundle some decisions at the proposed rule stage, only to split them into distinct final rules. It can then reaggregate those issues and revise them through a subsequent regulation.

Consider some examples:

• The Environmental Protection Agency (EPA) recently issued a proposed rule which, in the Agency's own words, combined "three distinct actions."⁸ Some of these had previously been issued separately, but were now combined into one proposed rule. The rule's most high-profile action revised the Agency's Clean Power Plan, which was an effort by the Obama Administration to reduce carbon dioxide emissions from coalburning power plants.⁹ In addition, the rule proposed new requirements regarding state implementation of the new emissions requirements. Finally, the rule revised the Agency's New Source Review program, a preconstruction air permitting requirement. Some commented that the Clean Power Plan revisions were actually "distractions" from the more consequential New Source Review provisions.¹⁰

Review, 126 HARV. L. REV. 1755, 1792 (2013); Note, *OIRA Avoidance*, 124 HARV. L. REV. 994, 995 n.12 (2011) (noting the possibility that agencies split rules into parts to avoid review by the Office of Information and Regulatory Affairs). Relatedly, Abbe Gluck, Anne O'Connell, and Rosa Po remark upon what they call "omnibus rules." Omnibus rules can be understood as a subset of the larger category of what we call bundled rules, which includes rules with unrelated and related provisions. Abbe R. Gluck, Anne Joseph O'Connell & Rosa Po, *Unorthodox Lawmaking*, *Unorthodox Rulemaking*, 115 COLUM. L. REV. 1789 (2015).

See Kenneth Culp Davis, Administrative Rules – Interpretative, Legislative, and Retroactive, 57 YALE L.J. 919, 919 (1948) (noting that "rule-making is the part of the administrative process that resembles a legislature's enactment of a statute").

Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, 83 Fed. Reg. 44746 (proposed Aug. 31, 2018) (to be codified at 40 C.F.R. pts. 51, 52, 60).

The Clean Power Plan was issued as a final rule in October 2015. See Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64662 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60).

See, e.g., @AriPeskoe, TWITTER (Aug. 21, 2018, 12:19 PM), https://twitter.com/AriPeskoe /status/1031984028948328448 [https://perma.cc/Z2JL-PMVK].

- Years earlier, EPA had initially set out to regulate greenhouse gases under the Clean Air Act through one rulemaking.¹¹ After a change in presidential administration, however, the Agency instead decided to issue four separate rules addressing different subjects.¹² The first determined that carbon dioxide "endangered" the public.¹³ The second regulated auto emissions in light of that finding.¹⁴ The third dealt with "triggered" permitting requirements for stationary sources,¹⁵ while the fourth "tailor[ed]" the permitting requirements to the largest carbon emissions sources.¹⁶ All of these regulatory decisions could have been packaged into one rulemaking, but EPA chose to split them into four.¹⁷
- The Occupational Safety and Health Administration (OSHA) traditionally regulated a single substance at a time.¹⁸ Its Air Contaminants Standard rule, however, addressed 428 substances – from sulfur dioxide, to styrene, to wood and grain dust – all at once.¹⁹ After a court struck down the bundled regulation, OSHA was unable to revise any of the individual standards, despite efforts to rebundle them in new ways.²⁰

- 12. Greve & Parrish, supra note 11, at 507.
- 13. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496, 66524 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1).
- Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule, 75 Fed. Reg. 25324 (May 7, 2010) (to be codified at 40 C.F.R. pts. 85, 86, 600; 49 C.F.R. pts. 531, 533, 536-538).
- Reconsideration of Interpretation of Regulations that Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 Fed. Reg. 17004 (Apr. 2, 2010) (to be codified at 40 C.F.R. pts. 50, 51, 70, 71).
- Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31514 (June 3, 2010) (to be codified at 40 C.F.R. pts. 51, 52, 70, 71).
- 17. Greve & Parrish, supra note 11, at 507.
- See AFL-CIO v. OSHA, 965 F.2d 962, 971 (11th Cir. 1992) (noting that "[u]nlike most of the OSHA standards previously reviewed by the courts, the Air Contaminants Standard regulates not a single toxic substance, but 428 different substances").
- 19. See id.; Air Contaminants, 54 Fed. Reg. 2332 (Jan. 19, 1989) (to be codified at 29 C.F.R. pt. 1910).
- 20. See John Howard, OSHA Standards-Setting: Past Glory, Present Reality and Future Hope, 14 EMP. RTS. & EMP. POL'Y J. 237, 250 (2010) (noting that since the adverse court decision, "OSHA has been unable to reestablish new [standards] for the substances covered in its former air contaminants" rule, despite efforts to issue a new rule covering twenty substances).

See Gluck, O'Connell & Po, supra note 6, at 1806; Michael S. Greve & Ashley C. Parrish, Administrative Law Without Congress, 22 GEO. MASON L. REV. 501, 507 (2015).

• In response to patient deaths in fialuridine clinical trials, the Food and Drug Administration (FDA) proposed a rule establishing new reporting requirements for human drug and biological products as well as investigational new drug applications.²¹ It delayed the issuance of the final rule in response to heavy criticism from commenters, however, and considered breaking up the proposed rules into three separate final rules.²² The FDA ultimately decided to issue guidance documents addressing some of the issues.²³

Each of these scenarios illustrates a form of bureaucratic discretion that we call regulatory bundling – a practice with underexplored implications for the administrative state.

Indeed, the phenomenon has newfound significance after a recent Trump Administration executive order aimed at reducing regulatory costs.²⁴ The order contains, among other things, a "two-for-one" requirement, which directs agencies to repeal two regulations for every significant new one promulgated.²⁵ Executive agencies now have a greater incentive to pack more regulatory provisions into one rule because doing so delivers more bang for the buck. Assuming a fixed amount of offsetting rules at a given time, an agency can regulate more by aggregating more provisions into a single rulemaking.²⁶ If, by contrast, the agency splits the provisions, it would be forced to find two additional rules to repeal. One would thus expect to see more regulatory bundling after the executive order went into effect.

- 22. FDA Defers to International Harmonization in Adverse Event Reporting Proposal, supra note 21.
- 23. See Expedited Safety Reporting Requirements for Human Drug and Biological Products, 62 Fed. Reg. 52237, 52238 (Oct. 7, 1997) (to be codified at 21 C.F.R. pts. 20, 310, 312, 314, 600) ("[The FDA] has decided to withdraw the proposed amendments to the [Investigational New Drug] requirements for clinical study design and conduct and annual sponsor reporting. The agency will, instead, develop a guidance document providing recommendations on study design and monitoring of investigational drugs used to treat serious and potentially fatal illnesses.").
- 24. Exec. Order No. 13,771, 82 Fed. Reg. 9339 (Jan. 30, 2017).
- 25. Id.
- **26.** There is, of course, an important dynamic element depending on the relevant time horizons. Given a finite store of minor regulations sacrificed to be part of the two regulations repealed, in the long run, agencies will have to sacrifice their bundled regulations in order to issue a new regulation. In this manner, bundling rules in response to the executive order could backfire.

Adverse Experience Reporting Requirements for Human Drug and Licensed Biological Products, 59 Fed. Reg. 54046 (proposed Oct. 27, 1994) (to be codified at 21 C.F.R. pts. 20, 310, 312, 314, 600); see FDA Defers to International Harmonization in Adverse Event Reporting Proposal, GUIDE TO GOOD CLINICAL PRAC. NEWSL., Dec. 1995, at 6.

As further motivation, consider parallel scholarly observations about the legislative process. Social scientists have long studied the phenomenon of omnibus bills in Congress, through which legislators bundle numerous, often unrelated, provisions.²⁷ Positive theories propose that omnibus vehicles allow legislators to advance partisan agendas, engage in distributive logrolling, or pass otherwise unpopular measures.²⁸ Normative reformers, in turn, have often called for statutory *un*bundling. Single-subject rules found in many state constitutions, for example, limit bills and referenda to one subject.²⁹ The line-item veto similarly facilitates statutory unbundling by the executive branch.³⁰

This Article explores analogous insights in the regulatory context in the hopes of spurring a broader research agenda akin to the decades of studies pursued in the legislative arena. The effort here is primarily one of theory building, and in that spirit we include preliminary empirical analyses to explore intuitions and generate hypotheses for more rigorous testing in future work. This study also attempts to complicate existing debates about agency behavior. Take rule counts. Popular media and academic studies often rely on them to convey the magnitude of agency regulatory activity.³¹ But such counting exercises cannot

- 27. See, e.g., GLEN S. KRUTZ, HITCHING A RIDE: OMNIBUS LEGISLATING IN THE U.S. CONGRESS 45 (2001) [hereinafter KRUTZ, HITCHING A RIDE] (examining the dynamics giving rise to omnibus bills); BARBARA SINCLAIR, UNORTHODOX LAWMAKING: NEW LEGISLATIVE PROCESSES IN THE U.S. CONGRESS 112 (4th ed. 2012) (identifying examples of omnibus legislation); Johanna M.M. Goertz, Omnibus or Not: Package Bills and Single-Issue Bills in a Legislative Bargaining Game, 36 SOC. CHOICE & WELFARE 547 (2011) (comparing single-issue and omnibus bills in legislative bargaining); Glen S. Krutz, Getting Around Gridlock: The Effect of Omnibus Utilization on Legislative Productivity, 25 LEGIS. STUD. Q. 533 (2000) (assessing omnibus legislation's influence on legislative productivity); Glen S. Krutz, Tactical Maneuvering on Omnibus Bills in Congress, 45 AM. J. POL. SCI. 210 (2001) (studying how and why omnibus bills are created).
- 28. See KRUTZ, HITCHING A RIDE, supra note 27, at 32-33.
- 29. See Single Subject Rules, NAT'L CONF. ST. LEGISLATURES (May 8, 2009), http://www.ncsl.org /research/elections-and-campaigns/single-subject-rules [https://perma.cc/99LP-EL39].
 Many of them require the single subject to be included in the bill's title. See WILLIAM N. ESKRIDGE, JR. ET AL., CASES AND MATERIALS ON LEGISLATION & REGULATION: STATUTES AND THE CREATION OF PUBLIC POLICY 309 (5th ed. 2014).
- 30. This mechanism currently permits state governors in about forty-three states to veto "items" from appropriations bills, subject to legislative override. *See* ESKRIDGE ET AL., *supra* note 29, at 314.
- **31.** See, e.g., Thomas J. Donohue, *The Regulatory Tsunami--How a Tidal Wave of Regulations Is Drowning America*, U.S. CHAMBER COMM. (Oct. 6, 2010), http://www.uschamber.com/press /speeches/2010/regulatory-tsunami-how-tidal-wave-regulations-drowning-america [https://perma.cc/5URR-WSX4] (claiming that "approximately 4,000 rules from nearly 70 departments and agencies filled the regulatory pipeline in 2008"). Academic scholarship also relies on rule counts, though it is often aware of this measure's limitations. See, e.g., Anne

meaningfully capture the scope of an agency's rulemaking. One rule can set standards for an entire industry, while another addresses narrow compliance issues. A third might deal with technical or routine matters and have only a temporary effect,³² while a fourth is wholly deregulatory.³³ Rule counts are thus often misleading indicators of regulatory activity.

Appreciating agency bundling, however, helps to refine thinking about the relevant units of analysis. If compliance burdens are a concern, for example, it may be more sensible to measure costs than to tally rules. Understanding bundling behavior also enriches and complements work on the strategic timing of agency decisions and the more dynamic aspects of rulemaking behavior.³⁴ Agencies can simply delay controversial provisions, for example, by splitting them from a particular rule to save for future rulemakings.

Part I analyzes the concept and operationalization of regulatory bundling. It uses a unique dataset obtained from nearly twenty years of rulemaking across a wide range of agencies to provide an initial descriptive picture of the dynamic.³⁵

- 32. *See, e.g.*, Drawbridge Operation Regulations; China Basin, San Francisco, CA, 78 Fed. Reg. 19585 (Apr. 2, 2013) (to be codified at 33 C.F.R. pt. 117) (specifying a provisional deviation from a bridge operating schedule).
- 33. See Jerry L. Mashaw, Improving the Environment of Agency Rulemaking: An Essay on Management, Games, and Accountability, 57 LAW & CONTEMP. PROBS. 185, 198 n.41 (1994) (discussing how it is impossible "for the untutored eye to discern from the reporting in the Unified Agenda of Federal Regulations whether activity levels are primarily in a regulatory or deregulatory direction").
- 34. See, e.g., Jacob E. Gersen & Anne Joseph O'Connell, Hiding in Plain Sight? Timing and Transparency in the Administrative State, 76 U. CHI. L. REV. 1157, 1161-62 (2009) (suggesting that agencies cannot "bury" bad news, but that timing decisions can affect monitoring costs); Rachel Augustine Potter, Slow-Rolling, Fast-Tracking, and the Pace of Bureaucratic Decisions in Rulemaking, 79 J. POL. 841 (2017) (examining agency timing to avoid oversight); Wendy Wagner et al., Dynamic Rulemaking, 92 N.Y.U. L. REV. 183 (2017) (exploring agency incentives to update and revise rules).
- 35. Uniquely, the dataset draws directly from the Federal Register, which is the government's "official daily publication for rules, proposed rules, and notices of Federal agencies and organizations." *About Federal Register*, GOV'T PUB. OFF., http://www.gpo.gov/help/about_federal _register.htm [https://perma.cc/5YWD-NNVH]. Since agencies must publish in its pages for their rules to gain legal effect, the Federal Register provides the most comprehensive look possible at agencies' rulemaking behavior. *See* 44 U.S.C. § 1507 (2018); O'Connell, *supra* note

Joseph O'Connell, *Political Cycles of Rulemaking: An Empirical Portrait of the Modern Administrative State*, 94 VA. L. REV. 889, 922 n.101 (2008) (acknowledging that a database "looking at counts of various rulemaking activities" will "miss many details of individual rulemakings" "because they are aggregate measures"); Jason Webb Yackee & Susan Webb Yackee, *Testing the Ossification Thesis: An Empirical Examination of Federal Regulatory Volume and Speed*, 1950-1990, 80 GEO. WASH. L. REV. 1414, 1445 (2012) (describing their database as "essentially count[ing] the number of [notices of proposed rulemaking] and final rules issued by each agency over time").

The results suggest that bundling is increasingly common. Agencies seem more likely to bundle issues in their rulemaking efforts today than they were even a short time ago. Moreover, agencies appear to adopt a wide variety of practices with respect to bundling: some bundle a great deal, and others do so rarely.

Part II explores the various actors internal and external to the agency that likely influence the agency's bundling decisions. It considers the regulatory drafting process within agencies as well as the ways political and judicial monitors themselves can package and split rules. Basic empirical analysis suggests that independent and executive agencies bundle differently, perhaps reflecting the meaningful influence of presidential review coordinated by the Office of Information and Regulatory Affairs (OIRA). In addition, executive agencies appear to bundle slightly more under divided government; that is, when at least one house of Congress is of a different political party. Elections also seem to have an effect in favor of less bundling.

Finally, Part III acknowledges concerns that regulatory bundling raises about political accountability, public participation, and legislative fidelity. Regulatory bundling may allow agencies to overwhelm political and judicial overseers, as well as to short-circuit the notice-and-comment process. Our analysis indeed suggests that agencies bundle more subjects into final, as opposed to proposed, rules. At the same time, this Part recognizes that bundling yields benefits as well and recommends further empirical work to assess the trade-offs. In doing so, it highlights the possibilities and pitfalls of regulatory single-subject rules and the functional line-item veto exercised by the President through OIRA. Courts may also have a limited role to play in policing bundling through arbitrary-or-capricious review and the logical-outgrowth doctrine.

I. BUNDLING DYNAMICS

Scholars have long confronted the question of why regulations exist.³⁶ Far less studied is the question of *how* agencies regulate through legislative rules. How do they structure their regulations, disaggregate regulatory obligations un-

^{31,} at 928 ("Publication in the Federal Register is the official means of notifying the public of new regulations, and agency activity cannot be hidden if agencies expect anyone to comply with their rules."); Randy S. Springer, Note, *Gatekeeping and the Federal Register: An Analysis of the Publication Requirement of Section* 552(a)(1)(D) *of the Administrative Procedure Act*, 41 AD-MIN. L. REV. 533, 544 (1989) ("Agency documents that fall within the provisions of the publication rule of section 552(a)(1)(D) and are not so published are ineffective against a party without actual notice.").

^{36.} See, e.g., ARTHUR CECIL PIGOU, THE ECONOMICS OF WELFARE 132 (4th ed. 1932) (positing a public-interest theory of regulation); George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971) (developing an industry-capture theory of regulation).

der the same statutory grant, or aggregate them across multiple statutory provisions under the auspices of a single rule? This Part tackles some foundational issues. First, it defines and operationalizes the concept of regulatory bundling. It then presents a preliminary empirical overview of the phenomenon across agencies and across time. In doing so, it reveals historical trends in agency behavior and reflects on potential sources of heterogeneity.

A. Concept and Measurement

Regulatory bundling refers to agencies' discretion to aggregate or disaggregate provisions during a single rulemaking. Put differently, agencies can make many policy decisions in a rule or simply resolve one policy at a time. That discretion appears to be legislatively blessed: the Administrative Procedure Act (APA) defines a "rule" as "the *whole or a part* of an agency statement of general or particular applicability and future effect."³⁷ While the legislative history of the APA is unilluminating,³⁸ the text seems to anticipate that a rule can constitute either an entire agency statement of generality or just a portion of one. Rules, in other words, can resolve a set of subjects or simply component parts: the specification of a policy question, legal interpretation, enforcement scheme, or penalty structure, to name a few possibilities.

Although the core concept of regulatory bundling is relatively straightforward, it raises challenging analytic and practical questions. Crisply delineating a "subject" or "issue" is notoriously challenging, as later discussed.³⁹ Equally difficult is deciding how to operationalize the degree of bundling observed: what is the best way to identify the extent to which an agency has "bundled"? One intu-

^{37. 5} U.S.C. § 551(4) (2018) (emphasis added). Some have written about the APA's definition of a rule, but they do not seem to have focused on the specific meaning of "whole or a part." See, e.g., Sean Croston, It Means what It Says: Deciphering and Respecting the APA's Definition of "Rule," 53 WASHBURN L.J. 27 (2013); Ronald M. Levin, The Case for (Finally) Fixing the APA's Definition of "Rule," 56 ADMIN. L. REV. 1077 (2004).

^{38.} The House and Senate committee hearings and reports from the APA's legislative history focus on the evolution of the "general or particular applicability" provision, but neither the Federal Register Act nor the legislative history materials make any reference to the "whole or a part" language. See 44 U.S.C. §§ 1501-1511 (2018); S. REP. NO. 89-813 (1965); H.R. REP. NO. 84-1497 (1955). The Final Report of the Attorney General's Committee on Administrative Procedure, issued in 1941, was based on extensive research into contemporary practices of federal administrative agencies and provided much of the framework for the ultimate product. While the Final Report focused on agencies' procedures for rulemaking, it never addressed the definition of a rule itself. See S. DOC. NO. 77-8 (1941).

³⁹. See infra Section III.B.2.

itive method might be to rely upon agencies' own descriptions of their rulemaking efforts. Rules that are explicitly characterized as combinations of previous rules or that contain the term "omnibus" in the title might be one method.⁴⁰ But agencies are under no statutory requirement to label rules accordingly, so relying on this method is likely to yield inconsistent results. Agencies may also have incentives to characterize rules in ways that do not necessarily map onto any underlying substance. A behavioral definition is thus likely to be more meaningful.

Our preferred measure of bundling derives from a subject list that agency officials are required to include in proposed and final rules. Since 1982, agencies must include a "list of subjects" in their rules, where the subjects derive from a set of standardized terms identified in a thesaurus known as the Federal Register Thesaurus of Indexing Terms.⁴¹ The Office of the Federal Register (OFR) first proposed the creation of a thesaurus four years earlier as part of a broader effort to facilitate regulatory monitoring.⁴² Its initial draft drew upon terms previously used in indices of the Federal Register and Code of Federal Regulations (CFR).⁴³ The Office then consolidated and cross-referenced the terms against other published thesauruses and indices, resulting in a preliminary version published for public comment.⁴⁴ The more final version was then published in 1981 as a "dynamic document" that would "change through use."⁴⁵ In practice, however, revisions have been fairly limited.⁴⁶

- 42. See Thesaurus of Indexing Terms, 42 Fed. Reg. 12985, 12986 (Mar. 7, 1977) (requesting public comment).
- Id. ("The subject terms included in this thesaurus were derived from terms previously used in Federal Register and Code of Federal Regulations indexes.").
- 44. Id. (describing how proposed "terms were reviewed and consolidated and a cross-reference structure showing the relationships between terms was added," after which "[v]arious published thesauruses and indexes were consulted in selecting terms and cross-references").
- 45. See Federal Register Thesaurus of Indexing Terms, 46 Fed. Reg. 12617, 12618 (Feb. 17, 1981).
- **46**. In 1983, the Office added twenty-four new terms based on its two years of experience with the thesaurus. Some of these terms were used as indexing terms while others were added as cross-references. *See* Federal Register Thesaurus of Indexing Terms, 48 Fed. Reg. 27646 (June 16, 1983). Seven years later, the Office similarly added twelve more terms based on suggestions from agencies and staff. *See* Federal Register Thesaurus of Indexing Terms, 55 Fed. Reg. 38443, 38444 (Sept. 18, 1990). Since then, OFR has added or revised terms on the order of

⁴⁰. *Cf.* KRUTZ, HITCHING A RIDE, *supra* note 27, at 45 (considering defining "omnibus bill" by reference to the name of the bill, but rejecting that method).

^{41.} Identification of Subjects in Agency Regulations, 46 Fed. Reg. 7161, 7162 (Jan. 22, 1981) (to be codified at 1 C.F.R. pt. 18); see Telephone Interview with Amy Bunk, Dir. of Legal Affairs & Policy, Office of the Fed. Register, Nat'l Archives & Records Admin. (Feb. 2, 2018) [hereinafter Bunk Interview]; Telephone Interview with Brian Swidal, Senior Editor, Office of the Fed. Register, Nat'l Archives & Records Admin. (Apr. 5, 2018) [hereinafter Swidal Interview].

The subject-list requirement's stated purpose was to advance transparency and encourage public participation.⁴⁷ The hope was that interested parties could easily find regulations of concern.⁴⁸ The citizen with "a buzzing seat belt," for example, would not have to waste time searching indices for "Cars," "Automobiles," and "Motor Vehicles," but could instead focus on a single standardized term.⁴⁹ The effort would also help the government consistently index other publications such as the Federal Register and CFR.⁵⁰ The Administrative Committee of the Federal Register presciently noted that these standardized thesaurus terms could facilitate research and form the basis of a computer database in the future.⁵¹

For the past few decades, then, all proposed and final rules have included a list of subjects keyed to a fairly consistent standardized governmental thesaurus. We collect the subjects listed as a metric of the extent to which a given rule is "bundled." The more subjects the rule lists from the thesaurus, the more issues are bundled into the rule. Consider the EPA's Clean Power Plan final rule issued under the Obama Administration but now subject to repeal.⁵² The rule established state emission guidelines for developing plans to reduce greenhouse gas

two to three minor changes a quarter, with a more general organizational (as opposed to substantive) revision in 2016. *See* E-mail from Brian Swidal, Senior Editor, Office of the Fed. Register, Nat'l Archives & Records Admin., to Jennifer Nou, Professor of Law, Univ. of Chi. Law Sch. (May 10, 2018, 1:17 PM) (on file with authors).

- 47. See Identification of Subjects in Agency Regulations, 46 Fed. Reg. 7162, 7162 (Jan. 22, 1981) (to be codified at 1 C.F.R. pt. 18) (invoking "[t]he public's right to know about and participate in their Government and its day-to-day activities").
- **48.** *Id.* (seeking to "provide a framework for information retrieval in the Federal Register system").
- 49. See Standardization of Indexing Terms, 39 Fed. Reg. 14548, 14549 (Apr. 24, 1974).
- 50. Identification of Subjects in Agency Regulations, 46 Fed. Reg. at 7162 ("The identifying terms provided by the agencies with their regulations will be used at the OFR to expand the existing indexes to both the Federal Register and the Code of Federal Regulations.").
- 51. Id. ("The use of a controlled vocabulary, a thesaurus, is intended to improve research.... Through the use of automated technology the identifying terms will also be incorporated with the CFR text in a computerized data base for eventual automated information retrieval.").
- 52. The Clean Power Plan was promulgated in October 2015. See Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64662 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60). More recently, EPA proposed to repeal and replace the Clean Power Plan. See Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 83 Fed. Reg. 44746 (proposed Aug. 31, 2018) (to be codified at 40 C.F.R. pts. 51, 52, 60); Electric Utility Generating Units: Repealing the Clean Power Plan, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/stationary-sources-air-pollution/electric-utility-generating-units-repealing-clean-power-plan [https://perma.cc/5Q9E-79ML].

emissions from existing power plants.⁵³ It also required states to monitor their progress and provide periodic reports.⁵⁴ Accordingly, the final rule listed the following subjects: "Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, [and] Reporting and recordkeeping requirements."⁵⁵ Based on this list, our bundling measure would record a value of five: the Agency listed five qualitative subjects.

By contrast, take another final rule promulgated by EPA, this time dealing with hazardous waste.⁵⁶ In this rule, EPA listed waste generated from the production of identified dyes; pigments; and food, drug, and cosmetic colorants as "hazardous" when it exceeded particular thresholds or was not treated or disposed of properly.⁵⁷ The determination followed three previous proposals on the discrete issue.⁵⁸ The rule also addressed a number of other subjects. For example, it added five toxic constituents to the list of hazardous constituents that served as the basis for classifying wastes as hazardous.⁵⁹ It added another seven constituents to a separate list of hazardous constituents that formed the basis for the current waste listing. In addition, the rule established land-disposal-restrictions standards for the identified wastes and also designated them as hazardous substances subject to the Comprehensive Environmental Response, Compensation, and Liability Act. Perhaps unsurprisingly, the list of subjects identified many more unique subjects than the Clean Power Plan rule discussed earlier: twentysix, to be exact.⁶⁰

- 57. Id. at 9141.
- **58**. *Id*. at 9143.
- 59. Id. at 9142.

⁵³. See 40 C.F.R. §§ 60.5740-.5790 (2018).

⁵⁴. *Id*. §§ 60.5865, 60.5870.

^{55.} Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. at 64941.

^{56.} Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Dyes and/or Pigments Production Wastes; Land Disposal Restrictions for Newly Identified Wastes; CERCLA Hazardous Substance Designation and Reportable Quantities; Designation of Five Chemicals as Appendix VIII Constituents; Addition of Four Chemicals to the Treatment Standards of Fo39 and the Universal Treatment Standards, 70 Fed. Reg. 9138 (Feb. 24, 2005) (to be codified at 40 C.F.R. pts. 148, 261, 268, 271, 302).

^{60.} The list of subjects included the following nonduplicative terms: Administrative practice and procedure; Hazardous waste; Reporting and record keeping requirements; Water supply; Environmental protection; Hazardous materials; Waste treatment and disposal; Recycling; Waste management; Land Disposal Restrictions; Treatment Standards; Confidential business information; Hazardous material transportation; Indians – lands; Intergovernmental relations; Penalties; Water pollution control; Air pollution control; Chemicals; Emergency Planning and Community Right-to-Know Act; Extremely hazardous substances; Hazardous

In this manner, the measure roughly captures the number of issues addressed in a rulemaking based on the expert judgment of agency officials themselves. A major strength of this approach is that it relies on human coding by reference to a standardized and relatively uniform codebook (the thesaurus), an approach often referred to as the "gold standard" in social science research.⁶¹ Human, as opposed to computer-automated coding, allows for the judgment and context necessary when parsing language.⁶² By contrast, alternative approaches such as topic modeling, which attempts to classify the "topics" in a natural language corpus using algorithms,⁶³ are widely considered second-best solutions to be used when the resource costs required for human coding are prohibitive.⁶⁴ To be sure, humans can be strategic about the measure in ways that automated approaches would not be. The OFR, however, generally reviews agency submissions, albeit in an "advisory" manner and with a "light touch."65 While the review does not focus heavily on the subject list,⁶⁶ the threat of oversight may nevertheless help mitigate the possibility. The OFR and its agency liaisons, who are responsible within the agency for Federal Register publications, are also repeat players.⁶⁷

- **62**. Grimmer & Stewart, *supra* note 61, at 270 (acknowledging that "all automated methods are based on incorrect models of language" but that automation can usefully complement or supplement human coding).
- **63**. For the seminal piece on this topic, see David M. Blei et al., *Latent Dirichlet Allocation*, 3 J. MACHINE LEARNING RES. 993 (2003).
- 64. See sources cited supra note 61.
- 65. Bunk Interview, supra note 41; Swidal Interview, supra note 41.
- 66. Bunk Interview, *supra* note 41; *see also* Swidal Interview, *supra* note 41 (explaining the review process).
- 67. See 2015 Federal Register Conference, OFF. FED. REG., https://www.federalregister.gov/reader -aids/office-of-the-federal-register-blog/2015/06/2015-federal-register-liaison-conference [https://perma.cc/TWU6-MMPP] ("Each federal agency is required to designate an individual as a point of contact for all documents their agency publishes in the Federal Register.").

chemicals; Hazardous substances; Natural resources; Superfund; Waste treatment and disposal.

^{61.} See Paul DiMaggio, Adapting Computational Text Analysis to Social Science (and Vice Versa), BIG DATA & SOC'Y, July-Dec. 2015, at 1, 2-3 (noting that "human reasoning is routinely described as a 'gold standard' against which algorithmic output should be judged"); Laura K. Nelson et al., The Future of Coding: A Comparison of Hand-Coding and Three Types of Computer-Assisted Text Analysis Methods 3 (Mar. 13, 2017) (unpublished manuscript) (on file with authors) (observing that "[m]ost social scientists continue to rely on traditional human coding methods as the gold standard for the analysis of such phenomena"); see also Justin Grimmer & Brandon M. Stewart, Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts, 21 POL. ANALYSIS 267, 268 (2013) ("[T]he complexity of language implies that automated content analysis methods will never replace careful and close reading of texts.").

Agency failures to comply may therefore result in reputational sanctions and relational costs.⁶⁸

Another critique may note that the measure could double count the number of issues when officials list both "general" and "specific" terms.⁶⁹ "Air transportation" and "air taxis" both appear in the thesaurus, for example, so a rule relating to air taxis could list both subjects. It is also possible that the thesaurus is not specific enough in some areas, and that multiple "issues" could appear under one general heading. Instead of double counting, it could be that the thesaurus is not granular enough. We address some of these concerns in the Appendix by creating an "adjusted" measure that accounts for the presence of both specific and general terms for a rule. We are able to do so based on the thesaurus itself, which notates when terms may be more specific than others.⁷⁰ Importantly, we find that none of our results change qualitatively with this adjusted measure.

Finally, yet another concern may be intercoder reliability – that is, the extent to which independent coders at different agencies evaluate the content of interest and reach the same conclusion. Ensuring consistency across dozens of agencies with varying staff capacities is undoubtedly a difficult task.⁷¹ Mitigating these concerns, however, is the fact that agency rule writers are provided coding guidance in a document-drafting handbook published by the OFR.⁷² The handbook applies to all documents published in the Federal Register, including rules.⁷³ The handbook encourages rule writers to choose standardized terms based on the CFR part designation.⁷⁴ The handbook then directs readers to the thesaurus's

^{68.} One test of the possibility of strategic listing of subjects would involve examining changes in listing behavior around the time of sharp transitions in the oversight environment – conditional on a less manipulable (even if noisier) measure of the bundling content. We considered such a test based on transitions of congressional control but concluded that the most plausible alternative metric of bundling, sections of the Code of Federal Regulations touched by the rule, though harder to manipulate, was too coarse to meaningfully account for dynamics in rule content. Nevertheless, those results indicate few signs of strategic listing behavior, and we make them available on request.

⁶⁹. *See* Swidal Interview, *supra* note 41 (acknowledging the potential overlap between general and specific terms).

E-mail from Brian Swidal, Senior Editor, Office of the Fed. Register, Nat'l Archives & Records Admin., to Authors (May 2, 2018) (on file with authors).

^{71.} See Swidal Interview, *supra* note 41 (describing different coding practices at different agencies).

^{72.} Office of the Fed. Register, *Document Drafting Handbook*, NAT'L ARCHIVES & RECORDS ADMIN. (Aug. 31, 2018), https://www.archives.gov/files/federal-register/write/handbook/ddh.pdf [https://perma.cc/SM42-7U4V].

⁷³. Id.

^{74.} Id. at 2-15, 3-20.

website, which contains a link to the indexing terms associated with each CFR part.⁷⁵ In this manner, the guidance encourages interagency consistency by providing a standardized list of terms as a starting point, based on how the regulation will eventually be codified.

As for the dataset of underlying rules, the entries derive from the Federal Register between 2000 and 2017, amounting to almost twenty years of rulemaking data.⁷⁶ Unless they provide actual notice or personal service on the potentially affected parties, agencies are legally required to publish their final rules in the Federal Register.⁷⁷ Thus, these data are likely the most comprehensive look possible at the universe of proposed and final rulemakings. Earlier efforts to study agency behavior, by contrast, have relied almost exclusively on Unified Agenda entries to capture rulemaking behavior.⁷⁸ Yet most scholars have

^{75.} *Code of Federal Regulations List of Subjects*, NAT'L ARCHIVES & RECORDS ADMIN., https://www .archives.gov/federal-register/cfr/subjects.html [https://perma.cc/4HST-QX93]; *see also* Telephone Interview with Andrew Emery, President, Regulatory Grp. (Apr. 10, 2018) [hereinafter Emery Interview] (explaining the process of listing subjects).

^{76.} For a more detailed discussion of rulemaking data, see Jennifer Nou & Edward H. Stiglitz, *Strategic Rulemaking Disclosure*, 89 S. CAL. L. REV. 733 (2016). The Appendix also provides further details.

^{77. 5} U.S.C. § 553(b) (2018) ("General notice of proposed rule making shall be published in the Federal Register, unless persons subject thereto are named and either personally served or otherwise have actual notice thereof in accordance with law.").

See, e.g., Alex Acs & Charles M. Cameron, Does White House Regulatory Review Produce a 78. Chilling Effect and "OIRA Avoidance" in the Agencies?, 43 PRESIDENTIAL STUD. Q. 443, 443 (2013); Steven J. Balla, Between Commenting and Negotiation: The Contours of Public Participation in Agency Rulemaking, 1 I/S 59, 70 (2005) ("[U]se of the Unified Agenda ensures that the set of rulemakings under study represents as complete a snapshot as possible of [Department of Transportation rulemaking activities]."); Steven J. Balla, Political Control, Bureaucratic Discretion, and Public Commenting on Agency Regulations, 93 PUB. ADMIN. 524, 536 n.12 (2014); Steven J. Balla & John R. Wright, Consensual Rule Making and the Time It Takes to Develop Rules, in Politics, Policy, and Organizations: Frontiers in the Scientific Study of Bu-REAUCRACY 187, 206 n.5 (George A. Krause & Kenneth J. Meier eds., 2003); Jack M. Beermann, Midnight Rules: A Reform Agenda, 2 MICH. J. ENVTL. & ADMIN. L. 285, 319 (2013); Steven J. Groseclose, Reinventing the Regulatory Agenda: Conclusions from an Empirical Study of EPA's Clean Air Act Rulemaking Progress Projections, 53 MD. L. REV. 521, 533 (1994); Stephen M. Johnson, Ossification's Demise?: An Empirical Analysis of EPA Rulemaking from 2001-2005, 38 ENVTL. L. 767, 780-81 (2008); Jason M. Loring & Liam R. Roth, After Midnight: The Durability of the Midnight Regulations Passed by the Two Previous Outgoing Administrations, 40 WAKE FOREST L. REV. 1441, 1454 (2005); Michael R. See, Willful Blindness: Federal Agencies' Failure to Comply with the Regulatory Flexibility Act's Periodic Review Requirement – and Current Proposals to Invigorate the Act, 33 FORDHAM URB. L.J. 1199, 1215-19 (2006); Stuart Shapiro, Presidents and Process: A Comparison of the Regulatory Process Under the Clinton and Bush (43) Administrations, 23

acknowledged that these data are incomplete.⁷⁹ Overall, our dataset includes approximately 19,000 proposed rules and 41,000 final rules.⁸⁰ In addition to the listed subjects, we collect the full text of the proposed and final rules, as well as multiple other variables of interest, such as the identity of the issuing agency, the date of publication, and the word count of the rule.

B. Alternate Measures

We also considered a number of alternative measures of bundling as a check to our own: one based on the number of words in the regulatory document,⁸¹ and another based on the number of tie-ins to the regulatory code – that is, the number of CFR parts or sections listed in a rule. Both measures have strengths, but their limitations ultimately counsel in favor of the subject-based measure used here. As for the first alternative, one might be tempted to rely on the number of words in a regulation on the theory that more words imply more subjects or issues addressed.⁸² After all, regulatory bundling reflects the discretion of agencies to aggregate topics that could otherwise be addressed in separate rules. But there are at least two problems with this approach. First, the number of words may signal not several subjects, but the greater detail or complexity of a single subject. Second, the number of required regulatory analyses has varied

J.L. & POL. 393, 400 (2007); Edward H. Stiglitz, Unaccountable Midnight Rulemaking?: A Normatively Informative Assessment, 17 N.Y.U. J. LEGIS. & PUB. POL'Y 137, 156 (2014); Jason Webb Yackee & Susan Webb Yackee, Administrative Procedures and Bureaucratic Performance: Is Federal Rulemaking "Ossified"?, 20 J. PUB. ADMIN. RES. & THEORY 261, 267-68 (2010); Jason Webb Yackee & Susan Webb Yackee, Divided Government and U.S. Federal Rulemaking, 3 REG. & GOV-ERNANCE 128, 132 (2009); Susan Webb Yackee, The Politics of Ex Parte Lobbying: Pre-Proposal Agenda Building and Blocking During Agency Rulemaking, 22 J. PUB. ADMIN. RES. & THEORY 373, 379 (2012).

^{79.} *See, e.g.*, Mashaw, *supra* note 33, at 198 n.41 (noting that his investigation into the quality of the Unified Agenda data was "sufficiently disappointing that [he did] not pursue[] the analysis on a more 'scientific' basis"); O'Connell, *supra* note 31, at 927 n.108 ("[The] Unified Agenda data are not perfect; they need confirmatory research.").

In earlier research, we find that final rules dramatically outnumber proposed rules. See Nou & Stiglitz, supra note 76.

^{81.} The rulemaking document contains both the proposal or final rule and any preambulatory materials.

Michael Simkovic & Miao Ben Zhang, Measuring Regulation 4-5 (June 29, 2018) (un-published manuscript), https://ssrn.com/abstract=3205589 (describing the use of word counts in previous studies of rulemaking).

across time in ways that are independent from the scope of a particular rule.⁸³ The same is true of the stringency of judicial review.⁸⁴ As a result, word counts could vary because of exogenous analytic requirements rather than agency choices about regulatory scope.

One might thus turn instead to a measure focused on the number of CFR parts or sections listed in a rule. The CFR is organized into fifty titles according to broad subject-matter categories, such as Environment (Title 40), Labor (Title 29), and Transportation (Title 49). These titles are then organized into chapters, parts, and sections.⁸⁵ As relevant here, the chapter designation usually contains the rules of the issuing agency and often bears the agency's name.⁸⁶ The part, in turn, often contains rules regarding a single program or agency function. The section, however, is "the basic unit of the CFR" and "typically contains one provision of program/function rules."87 Thus, counting the number of CFR parts or sections cited in a rule might give one a sense of the number of topics addressed in the rulemaking. The main problem with this approach, though, is the lack of rationalization and organization of the CFR across agencies.⁸⁸ Different agencies have made different choices about how to codify their provisions, resulting in a nonstandardized unit of analysis.⁸⁹ By contrast, the subject-based measure is implemented through a standardized set of guidelines, as discussed above.90

Despite these drawbacks, one would nonetheless expect positive correlations between the number of subjects listed and these indicia. Indeed, all of these indicia correlate positively (albeit weakly) with the measure of bundling in our dataset, suggesting its validity. The correlation between our measure and the log

- 89. Id.
- 90. See supra notes 65-75 and accompanying text.

See generally Thomas O. McGarity, Some Thoughts on "Deossifying" the Rulemaking Process, 41 DUKE L.J. 1385, 1400-36 (1992) (discussing analytic requirements imposed by courts, Congress, and the executive branch).

^{84.} Id. at 1410-26.

^{85.} Standard Organization of the Code of Federal Regulations, 1 C.F.R. § 21.11 (2018); see also Richard J. McKinney, A Research Guide to the Federal Register and the Code of Federal Regulations, LAW LIBR. SOC'Y WASH. D.C. (Mar. 5, 2018), https://www.llsdc.org/fr-cfr-research-guide [https://perma.cc/5QUD-R6Y8] (showing the suborganization of the titles).

Daniel Stochr, Understanding the Structure of the Code of Federal Regulations, DANIELS TRAINING SERVS. INC. (Feb. 11, 2012), https://danielstraining.com/understanding-the-structure-of-the -code-of-federal-regulations [https://perma.cc/5TKF-XT4G].

Federal Register Tutorial, NAT'L ARCHIVES & RECORDS ADMIN. (Jan. 4, 2018), https://www.archives.gov/federal-register/tutorial/online-html.html#CFR [https://perma.cc/U2LB -QSSH].

^{88.} Bunk Interview, *supra* note 41.

number of CFR parts is 0.07, between the number of subparts is 0.17, and between the number of words in the rulemaking document is 0.26. There is a positive relationship between measures based on the Federal Register Thesaurus, the number of words, and CFR parts and sections. For the sake of transparency, especially for those concerned with the limitations of our measure, we present the various empirical analyses below using the alternative approaches in the Appendix.

C. Trends

Let us return now to our subject-based measure. Administrative agencies appear to be increasingly bundling subjects in their rulemakings. As Figure 1 below illustrates, the average number of subjects has been more or less steadily increasing during the last twenty years for both proposed (left panel) and final rules (right panel).⁹¹ Each dot represents the average number of subjects listed by agencies in proposed or final rules in a given month. The size of the dot is proportional to the number of proposed or final rules issued in that month, while the grey line shows the trend over time. The trend is more marked for proposed rules. For the first twenty-four months of our series, the average proposed rule contained roughly 4.03 listed subjects; in the final twenty-four months of our series, it contained an average of approximately 4.8 listed subjects. While the absolute magnitude (less than one subject over the time period) should not be overstated, it does represent an increase of about nineteen percent, averaged across thousands of rules. Around 2017, one sees a dip in bundling for proposed rules, which may owe to features unique to the Trump Administration, such as those involving personnel or the transition.⁹² The number of listed subjects in final rules has also increased, but more gradually. For final rules, the average number of listed subjects increased from about 4.4 in the opening twenty-four

^{91.} Specifically, we create monthly bins of rules and calculate the average number of subjects in each bin. The left panel of the figure presents the results for proposed rules; the right panel, final rules. Within each panel, time runs on the *x*-axis and the indicated measure runs on the *y*-axis. The vertical dashed lines represent shifts in administrations, each dot represents the average for the relevant metric in a month, and the line shows the trends over time. The trend line is produced using a locally weighted average of the months, so that at any point the line represents the average proportion, with months closer to that point weighted more heavily than months farther from that point.

⁹². Note that in the smoothed average the point of inflection occurs before 2017; it is at this earlier point that the end of the series begins to influence the smoothed average. That point of inflection, however, is sensitive to the choice of smoothing parameter. The raw data, as revealed in the points, suggest that an abrupt change occurred around 2017, that is, around the time of the change in administrations.

months to about 4.9 in the closing twenty-four months, an increase of about ten percent.⁹³

This observation could reflect a broader phenomenon: policy-making instruments across a variety of settings have become longer and more complex over time. Both statutes and Supreme Court opinions, for example, reflect this dynamic.⁹⁴ Specific explanations vary, but these phenomena likely reflect related causes. For instance, the economic and social conditions that the law seeks to regulate have become more interdependent and uncertain over time.⁹⁵ At the same time, the costs of storing, searching, and retrieving legal knowledge have decreased as consumers of the law – from lawyers to judges to the public – now have greater access to sophisticated legal technology, further encouraging lengthy and complex legal documents.⁹⁶ For these reasons, legal instruments as a whole often address more subjects.

⁹³. An interesting feature of these trends is that we do not observe a corresponding dip in bundling for final rules around 2017. One interpretation of this pattern is that new proposed rules exhibit more sensitivity to transitions in administration than final rules. For instance, final rules may have momentum behind them, with influential stakeholders largely in agreement with the content of the rule.

^{94.} See, e.g., Michael J. Bommarito II & Daniel M. Katz, A Mathematical Approach to the Study of the United States Code, 389 PHYSICA A 4195, 4195 (2010) (finding that the "Code has grown in its amount of structure, interdependence and language"); Adam Liptak, Justices Are Long on Words but Short on Guidance, N.Y. TIMES (Nov. 17, 2010), http://www.nytimes.com/2010/11 /18/us/18rulings.html [https://perma.cc/UTW5-B293] (reporting that the "number of words per decision has been climbing").

^{95.} See Peter H. Schuck, Legal Complexity: Some Causes, Consequences, and Cures, 42 DUKE L.J. 1, 25 (1992).

^{96.} Id.

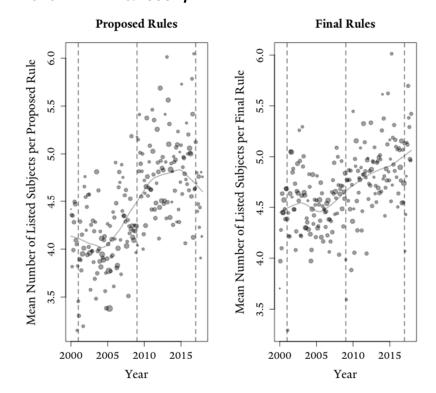


FIGURE 1. BUNDLING ACTIVITY TRENDS: 2000-17

Administrative agencies may likewise engage in more bundling due to a number of related developments in the regulatory state. A new rule today is likely to touch on several existing rules or implicate a number of overlapping statutes.⁹⁷ New regulations are written against the backdrop of an increasing store of existing legal obligations, requiring more topics to be addressed for seemingly simple changes. This contrasts with the earlier days of the administrative state, when agencies developed novel regulatory programs in more clearly delineated fields. Congress, too, has increasingly delegated policy issues to multiple agencies, compelling agencies to write joint rules dealing with a greater number of topics.⁹⁸ As more agencies become involved, they may spot a greater number of issues implicated. The increase may also be explained as a behavioral reaction to

^{97.} See Robert B. Ahdieh, *Dialectical Regulation*, 38 CONN. L. REV. 863, 863 (2006) (noting that with regulatory "growth has come a concomitant increase in the engagement of regulatory institutions across jurisdictional lines").

See, e.g., Jacob E. Gersen, Overlapping and Underlapping Jurisdiction in Administrative Law, 2006 SUP. CT. REV. 201; Jody Freeman & Jim Rossi, Agency Coordination in Shared Regulatory Space, 125 HARV. L. REV. 1131 (2012).

political and judicial oversight or greater litigation threats from those involved in the public-comment process. Perhaps bundling has become the favored strategy for overwhelming resource-constrained opponents.

To shed some light on these various dynamics, note that some agencies bundle more than others. Specifically, Figure 2 below shows that several agencies – such as EPA, the Department of Housing and Urban Development (HUD), and the Department of Veterans Affairs (VA) – issue a larger number of bundled rules on average.⁹⁹ By contrast, the Departments of Defense (DOD) and Commerce tend not to issue proposed or final rules with many listed subjects; on average, they list fewer than two subjects per proposed or final rule. This interagency variation may reflect many differences worthy of further exploration.

EPA and HUD, for example, operate under different enabling statutes that may address many more issues than a narrower-mission agency like DOD. They may therefore have the ability to bundle in ways that DOD does not. In other words, Congress itself may constrain agency bundling decisions when it makes choices about agency jurisdiction as well as statutory scope.¹⁰⁰ Alternatively, EPA, HUD, and the VA may also be more heavily monitored, thus inducing more bundling in attempts to divide and distract the attention of resource-constrained interest groups or to placate the various stakeholders in play. These agencies, as a group, receive more public attention than, say, the General Services Administration (GSA). In addition, the trends may also reflect changes in underlying rulemaking behavior outside of bundling and splitting incentives. Put differently, there may be differences in the composition of underlying rules that are difficult to isolate but important to recognize.¹⁰¹

This analysis suggests that about half of the increase is due to compositional changes. For instance, as reported above, the number of subjects increased by about 19% between the first twenty-four and the last twenty-four months of the series. With the composition fixed, the

^{99.} For the full list of agency abbreviations, see infra pp.1235-37.

^{100.} See also Telephone Interview with Nada Culver, Senior Counsel & Senior Dir., The Wilderness Soc'y (Oct. 5, 2018) [hereinafter Culver Interview] (making a similar observation).

^{101.} Suppose, for instance, that the VA issued few rules at the start of the series and many in the end of the series. Overall, this would produce an upward trend in bundling over time, but possibly due solely to the greater activity of the VA. To account for this, one can decompose the increase into compositional and secular factors. In particular, one can remove compositional changes, as in the VA example, by fixing the composition at the values of the first year in the series. Say, for instance, that the VA issued 5% of the rules in 2000. Then, going forward, we weight the average subjects listed by the VA as though the VA issued 5% of the rules in later periods, even if in fact the VA issued 10% or 15% of the rules in those periods. This resembles the approach taken, for example, in Olivier Bargain & Tim Callan, *Analyzing the Effects of Tax-Benefit Reforms on Income Distribution: A Decomposition Approach*, 8 J. ECON. INEQ. 1 (2010); and Olivier Bargain et al., *Tax Policy and Income Inequality in the U.S.*, 1979-2007: A Decomposition Approach, 53 ECON. INQUIRY 1061 (2015).

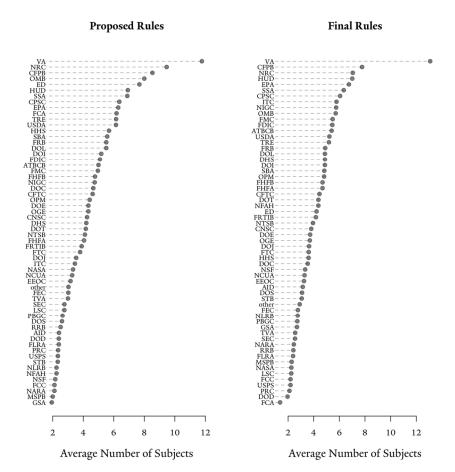


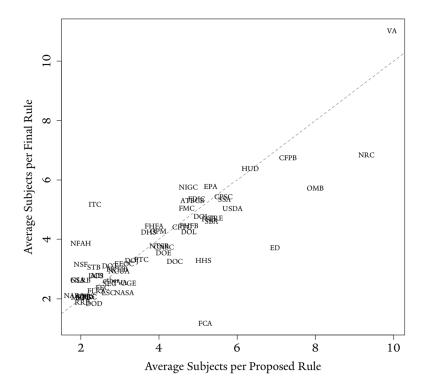
FIGURE 2. BUNDLING AT THE AGENCY LEVEL

Less substantively, it is also possible that there are simply coding discrepancies across administrative agencies. Perhaps coding practices at the VA differ systematically from those at the Farm Credit Administration. Finally, the drafters of the thesaurus may also have split subject areas in ways that are reflected in the results but do not necessarily correspond to behavioral choices made by particular agencies.

increase reduces to about 11% for notices of proposed rulemaking. Along the same lines, for final rules, the unadjusted increase between the first and last twenty-four months is about 10%. With the agency composition fixed, the increase is only about 5% using the same periods of comparison. The problem with this approach, however, is that these compositional changes are themselves endogenous to the bundling and splitting dynamics we examine. Isolating them is thus not a straightforward task.

More generally, the bundling behavior of an agency is broadly similar for proposed and final rules. If an agency tends to bundle in proposed rules, then it also tends to do so for final rules. Across agencies, the correlation between the number of listed subjects in proposed and final rules is 0.84. Figure 3 below plots the average number of subjects for final rules against the average number of subjects for proposed rules. The dashed line on a forty-five-degree angle represents the line of perfect correspondence, such that an agency that falls on the line has the same number of subjects in its proposed and final rules. Agencies above the line tend to have more subjects in final than proposed rules, and agencies below the line tend to have fewer subjects in final than proposed rules. We later examine how the number of subjects evolves within a rulemaking effort from proposed to final rule.

FIGURE 3 BUNDLING IN PROPOSED AND FINAL RULES, BY AGENCY



II. BUNDLERS AND SPLITTERS

In light of this initial snapshot, this Part considers in more detail the incentives agencies have to bundle and split rules at a given point in time. The first Section examines factors influencing the agency's decision-making independent of external oversight, while the second Section introduces the dynamics created by political and judicial monitors. These dimensions, of course, are linked,¹⁰² but considering each in isolation is useful.

A. Internal Regulatory Drafters

1. Intra-agency Bargaining

Like legislatures drafting statutes, agencies drafting rules require the agreement of multiple internal actors. This dynamic is especially true in multimember commissions, which normally require a majority vote to approve a rule.¹⁰³ But even in single-headed agencies, regulatory drafting involves many internal constituencies with conflicting points of view.¹⁰⁴ Career staff in the relevant program office approach the rule with their subject-matter expertise.¹⁰⁵ Lawyers from the general counsel's office bring their legal perspectives.¹⁰⁶ Policy analysts or economists may press cost-benefit or other decision-making frameworks.¹⁰⁷ All are

- 103. See, e.g., Bradley C. Canon, Voting Behavior on the FCC, 13 MIDWEST J. POL. SCI. 587 (1969) (discussing the voting patterns and partisan affiliations of commissioners on the Federal Communications Commission).
- 104. See WESLEY A. MAGAT ET AL., RULES IN THE MAKING: A STATISTICAL ANALYSIS OF REGULATORY AGENCY BEHAVIOR 74 (1986) (describing "[c]onflict between the drafters of the rule and the economic analysis group" within a given rulemaking agency); Elizabeth Magill & Adrian Vermeule, *Allocating Power Within Agencies*, 120 YALE L.J. 1032, 1072 (2011) (discussing how "[a]gency structure and required processes . . . allocate authority within the agency . . . to experts in the 'middle' of the agency . . . [or] to political appointees at the top of the agency . . . [or] to agency personnel at the bottom of the agency").
- 105. See, e.g., FED. HIGHWAY ADMIN., U.S. DEP'T TRANSP., FEDERAL HIGHWAY ADMINISTRATION RULEMAKING MANUAL 7 (2000), http://www.dot.gov/sites/dot.dev/files/docs /FHWARulemaking%20Manual.pdf [https://perma.cc/DMF6-3CCA] [hereinafter FHWA MANUAL] (identifying the "program office" as the "technical office responsible for . . . [d]rafting rulemaking documents").
- 106. Magill & Vermeule, *supra* note 104, at 1061.
- **107**. *Id*. at 1051.

^{102.} Cf. Gillian E. Metzger, The Interdependent Relationship Between Internal and External Separation of Powers, 59 EMORY L.J. 423, 426 (2009) (describing "internal separation of powers mechanisms" and arguing that separation-of-powers doctrines have failed to "directly connect internal and external constraints").

usually involved in the first stages of regulatory drafting, during which they will determine the initial scope of the regulation. These rule-writing teams typically decide which provisions the regulations should contain as a preliminary matter. Of course, agency management can also determine the initial scope of a rule when composing these teams in the first place.¹⁰⁸

Regulatory bundling facilitates negotiations between these different internal groups. Say a policy analyst determines that a regulation dealing with issue *A* interferes with her objectives on some other issue *B*. The program officer who is coordinating the rule may offer to include provisions relating to issue *B* to secure the cooperation of the policy analyst. This scenario would result in an increase in bundling due to internal politicking at the agency. Alternatively, a lawyer may conclude that a particular part of the rule is subject to a statutory deadline and therefore must be expedited. She might thus convince the team to split off that piece from the rest of the rule, which has a slower timetable. This give-and-take will likely continue until a consensus has been reached.

From there, the draft rule will then undergo an agency-specific clearance procedure involving review by others in the agency, as well as up the hierarchy to political appointees.¹⁰⁹ At this point, many other offices are likely to be involved. Rule drafters within the Internal Revenue Service (IRS) must secure the approval of a branch reviewer; the Associate, Deputy, and Chief Counsels; the Assistant to the Commissioner; and, finally, the Commissioner before moving on to the Treasury Department for final authorization.¹¹⁰ The Federal Highway Administration requires concurrence from the Agency's other program offices, then its legal division, its Legislation and Regulations Division, and, finally, the Agency's Chief Counsel.¹¹¹ Generally speaking, those in these clearance chains do not possess hard internal vetoes in the sense that they can unilaterally stop the rulemaking from proceeding.¹¹² However, they can delay the draft rules by raising objections during the sign-off process.¹¹³

111. See FHWA MANUAL, supra note 105, at 8.

^{108.} See Emery Interview, supra note 75.

^{109.} See Jennifer Nou, Intra-agency Coordination, 129 HARV. L. REV. 421, 468 (2015) (discussing internal clearance procedures).

no. See INTERNAL REVENUE SERV., INTERNAL REVENUE MANUAL § 32.1.6.8.4 (2018), http:// www.irs.gov/irm/part32/irm_32-001-006.html [https://perma.cc/WWH3-2RU6].

^{112.} See Margo Schlanger, Offices of Goodness: Influence Without Authority in Federal Agencies, 36 CARDOZO L. REV. 53, 94 (2014) ("[O]ne government office ordinarily cannot authoritatively stop the issuance of a document by its sibling office.").

^{113.} *Id.* ("[I]t is possible to give an office assigned a clearance role something very close to that power, by structuring the conflict resolution procedure so that it is the operational office that needs to 'appeal' a clearance denial.").

As a result, rule-writing teams may bundle or split rules to mollify the actual or anticipated resistance faced within the agency. If a team within the IRS, for example, expects that a specific provision will ultimately be rejected by a newly appointed Chief Counsel, it can split off that provision for a future rulemaking – perhaps when a more sympathetic Chief Counsel has been appointed. Splitting controversial provisions can help ensure that regulatory efforts are not sunk by skittish agency heads.¹¹⁴ At the same time, drafters may also bundle a large number of regulatory provisions together in the hopes that more controversial provisions fly under the radar. In other words, bundling can allow what amount to regulatory riders: provisions that are only tenuously related to the rule, but nevertheless attached in order to facilitate passage.¹¹⁵

Should disagreements regarding rule writing amongst these offices nevertheless persist, clearance procedures also specify how these issues should be elevated up the agency hierarchy and which higher-level policy official should ultimately resolve the dispute.¹¹⁶ At EPA, for instance, the Deputy Administrator has been designated to adjudicate these disagreements,¹¹⁷ though she may elevate the most controversial issues to the Administrator.¹¹⁸ By comparison, the Commissioner of the IRS specifies that the Associate Chief Counsel within a division should usually resolve the dispute, though the matter could also be elevated to higher levels when necessary.¹¹⁹ Indeed, in most agencies, the ultimate

115. Id.

- **18**. See EPA's Action Development Process, supra note 116, at 71 (noting that issues could ultimately be formally elevated to the Administrator, though doing so would be "unusual" except for the most significant rules).
- 119. INTERNAL REVENUE SERV., *supra* note 110, § 32.1.6.3.

^{114.} See Emery Interview, *supra* note 75.

n6. The FHWA Manual, for instance, explicitly states that the rulemaking team is responsible for "resolv[ing] issues or elevat[ing] issues to management for resolution." FHWA MANUAL, *supra* note 105, at 8. Similarly, EPA provides that "[i]f workgroup members cannot agree, the issues of disagreement should be presented to management for resolution." *EPA's Action Development Process: Guidance for EPA Staff on Developing Quality Actions*, ENVTL. PROTECTION AGENCY 34 (2011), http://yosemite.epa.gov/sab%5CSABPRODUCT.NSF/5088B3878A90053 E8525788E005EC8D8/\$File/adp03-00-11.pdf [https://perma.cc/4Z3X-TCD7] [hereinafter *EPA's Action Development Process*]; *see id.* at 71 (discussing the process of informal and formal elevation of disagreements to management and other policy officials such as the Administrator).

^{117.} See William F. Pedersen, Jr., Formal Records and Informal Rulemaking, 85 YALE L.J. 38, 57 (1975) ("By the nature of the way EPA is (dis)organized, really sticky issues are escalated at least to the [Deputy Assistant Administrator] level and maybe higher for resolution." (alteration in original) (quoting Memorandum from a Senior EPA Official to William F. Pedersen, Jr., Attorney, Envtl. Prot. Agency (May 4, 1975))).

authority to bundle or split a rule lies with the statutorily designated political appointee, usually the head of the agency.

The dynamics become even more complicated when there are several agency heads involved – as in joint rulemakings or on multimember boards and commissions like the Securities and Exchange Commission or the National Labor Relations Board.¹²⁰ Individual commissioners and board members for a given agency often arrive in staggered terms, appointed by different Presidents, and sometimes as a result of party-balancing requirements.¹²¹ They approach their jobs from different backgrounds, career experiences, and priorities.¹²² Consequently, these agency heads often desire different regulatory outcomes, even when they are nominally members of the same political party.¹²³ In such situations, they can strike compromises through bundled rules by exchanging certain favored provisions for less favored ones.¹²⁴ This strategy becomes particularly attractive when the agency is unlikely to engage in further rulemaking on a particular topic because of political constraints. Under these circumstances, there is more pressure to resolve disagreements within the context of a single rule.

In this manner, regulatory bundling may be explained by internal negotiations within an agency drafting the rule. Diverse agency constituencies, including programmatic career staff, policy analysts, and lawyers can engage in bargaining when deciding the scope of a rule. These negotiations then can extend across agency offices as the rule undergoes a horizontal review process. From there, any remaining disagreements will be elevated up to political appointees who may further decide to add or split the subjects addressed in the rulemaking.

- 122. See BREGER & EDLES, supra note 120, at 96.
- 123. See Sharon B. Jacobs, Administrative Dissents, 59 WM. & MARY L. REV. 541, 572-75 (2017).
- 124. See Marshall J. Breger & Gary J. Edles, Established by Practice: The Theory and Operation of Independent Federal Agencies, 52 ADMIN. L. REV. 1111, 1113 (2000) (noting that independent agencies "are also multi-member organizations, a fact that tends toward accommodation of diverse or extreme views through the compromise inherent in the process of collegial decisionmaking").

^{120.} See generally MARSHALL J. BREGER & GARY J. EDLES, INDEPENDENT AGENCIES IN THE UNITED STATES: LAW, STRUCTURE, AND POLITICS (2015) (discussing the complex dynamics of multimember independent agencies).

^{121.} See Brian D. Feinstein & Daniel J. Hemel, Partisan Balance with Bite, 118 COLUM. L. REV. 9, 14 (2018) (describing "the effect of [partisan balance requirements] on the ideological composition of multimember Agencies"); Daniel E. Ho, Congressional Agency Control: The Impact of Statutory Partisan Requirements on Regulation 1-3 (Am. Law & Econ. Ass'n Annual Meetings, Working Paper No. 73, 2007), http://law.bepress.com/cgi/viewcontent.cgi?article=2219 &context=alea [https://perma.cc/FX3F-AYU3] (discussing the debate over statutory partisan requirements for regulatory commissions).

When there are multiple agency heads, regulatory bundling allows for logrolling and negotiation to occur before rules are subject to a vote.

2. Rule-Production Costs

Beyond internal agency compromises, the production costs of regulatory drafting may affect bundling behavior as well. In thinking about the resource burdens of writing a rule, it is helpful to distinguish between the fixed, variable, and marginal costs. A fixed cost is any cost that does not vary with the number of subjects addressed in a rule.¹²⁵ For instance, agencies that decide to engage in rulemaking must establish a docket,¹²⁶ secure boilerplate templates, and draft other standardized language necessary to conform to the Federal Register Document Drafting Handbook.¹²⁷ In addition, most agencies require internal management-related paperwork from rule-writing offices seeking permission to begin regulatory drafting.¹²⁸ These documents often require an abstract of the contemplated regulation and supporting justification.¹²⁹

The presence of fixed production costs generally encourages regulatory bundling. Bundling allows agencies to address more issues while paying the fixed costs only once. That is, bundling allows for greater administrative efficiency. Splitting the issues into separate rulemakings, by contrast, requires the agency to pay the fixed costs repeatedly.¹³⁰ Holding all else equal, one would thus expect to see more bundling occur when the fixed costs of producing a rule increase. One would also expect the same result when an agency suffers budget cuts. Conversely, when fixed costs fall, agencies may be more inclined to split provisions into separate rules. A variable cost, by contrast, is one that varies with the num-

- 127. Emery Interview, supra note 75.
- 128. Id.; see, e.g., EPA's Action Development Process, supra note 116, at 14 ("Prior to initiating substantive development activities, the lead office prepares and submits a tiering form describing the new action.").
- 129. See Emery Interview, supra note 75.
- 130. Some of these fixed costs may be mitigated by the use of templates and standardized language. Such measures, however, still require staff members to use their time and expertise to exercise the necessary discretion when tailoring the templates.

^{125.} There are some fixed costs that agencies must absorb even if they decide not to write any rules. These include, for example, rule-writing staff salaries and other normal agency operating costs. However, these costs would seem to go to the question of how many rules an agency produces, not the scope of those rules.

^{126.} About EPA Dockets, ENVTL. PROTECTION AGENCY, https://www.epa.gov/dockets/about-epa -dockets#docket [https://perma.cc/4EK8-D67N].

ber of subjects addressed by a rule. Generally speaking, the more issues addressed in a regulation, the costlier the rule-drafting effort. Some obvious variable costs include the resources necessary for researching additional technical issues or preparing the necessary analytical documents associated with more issues. In addition, there are also greater publication costs in the Federal Register, which currently charges a per-page rate.¹³¹

Relatedly, marginal costs reflect the costs of adding an incremental subject to a rule. Marginal costs may be either increasing or decreasing. When they are increasing, each additional issue is costlier than the last; when they are decreasing, each additional issue, though still costly, is less costly than the previous one. Therefore, increasing marginal costs would tend to discourage agencies from issuing rules that touch on many subjects, while decreasing marginal costs offer economies of scale and thus encourage bundling. There are good reasons to believe that the marginal costs of regulatory drafting decrease at some point, though they are likely generally increasing given inevitable resource constraints. They may decrease, that is, when a rule-writing team gains the requisite expertise necessary to regulate (or deregulate) in a particular domain. Once a baseline level of knowledge has been obtained, the marginal subject addressed can be cheaper to resolve. However, at some other point, the team's resources may present a bottleneck, and the marginal costs would begin to increase sharply. Each additional issue the team must address becomes increasingly expensive as the rule writers are required to work overtime or are taken away from other higherpriority matters. Because bundled regulations simultaneously strain agency resources, this form of congestion can be challenging for agencies to accommodate and can lead to staffing shortages. In response, agencies may smooth out their workflows by partitioning the issues across separate rules.¹³²

B. Monitors

While intra-agency dynamics can help to explain the scope of a rule, external monitors such as the President, Congress, and the courts also likely play an important role. These monitors can effectively veto rules, leading agencies to draft rules in their shadow. Put differently, strategic agencies can respond to the incentives created by executive, congressional, and judicial review. The first Sec-

Circular Letter No. 1003, GOV'T PUB. OFF. (Mar. 28, 2018), https://www.gpo.gov/docs/default -source/circular-letters-pdf-files/2018/cir1003.pdf [https://perma.cc/LG6G-2CDG] (lowering per-page Federal Register publication rates).

^{132.} See Telephone Interview with Brenda Mallory & Marna McDermott, Conservation Litig. Project (Sept. 19, 2018) [hereinafter Mallory & McDermott Interview] (describing this phenomenon).

tion thus explores when and why agencies may bundle or split rules when confronted with oversight generally. The second Section then examines the more particular dynamics presented by executive, legislative, and judicial monitors. It also addresses the ways in which these overseers can bundle and split rules unilaterally and the mechanisms they use to do so.

1. Facing Oversight

When confronted with a monitor that can reverse its policy decision, a strategic agency faces a set of trade-offs in deciding whether to bundle or split the regulatory provisions it seeks to promulgate. Say an agency can either pack ten regulatory provisions into one rulemaking or split them into ten separate rulemakings. What informs this choice when it comes to thwarting external review? Would a strategic agency prefer to bundle or split its rules?

Much of the answer depends on the structure of monitoring costs – how overseers must invest resources to observe an agency's rulemaking efforts before deciding to intervene.¹³³ These monitors could include political monitors, such as the President or Congress, and judicial monitors, as well as interest groups and members of the public serving as "fire alarms."¹³⁴ It is helpful, once again, to refer to fixed and marginal costs, here applied to the monitoring of a given rulemaking effort. Fixed monitoring costs are those that do not vary with the scope of a rule – for example, a flat fee just to access each Federal Register entry. Marginal monitoring costs are the costs associated with evaluating the incremental subject in a rule.

As an independent matter, when fixed monitoring costs are positive and material, splitting rules is likely to be more effective than bundling in thwarting oversight. Ten separate rules will deplete a greater number of monitoring resources than one bundled rule since monitors will have to incur set costs to evaluate each rule. So, as fixed monitoring costs increase, a strategic agency would often do better to split provisions across rules to drain the resources of their overseers, thus reducing oversight and opposition. At the same time, large fixed costs could also induce the monitor to adopt an auditing strategy, not unlike what

^{133.} See Gersen & O'Connell, *supra* note 34, at 1170-72 (emphasizing the relationship between agency behavior and monitoring costs).

^{134.} See Mathew D. McCubbins et al., Administrative Procedures as Instruments of Political Control, 3 J.L. ECON. & ORG. 243, 264-71 (1987); Mathew D. McCubbins et al., Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies, 75 VA. L. REV. 431, 444 (1989); Mathew D. McCubbins & Thomas Schwartz, Congressional Oversight Overlooked: Police Patrols Versus Fire Alarms, 28 AM. J. POL. SCI. 165 (1984).

OIRA does when flagging economically significant rules.¹³⁵ How an agency would adapt to these auditing strategies would depend on the auditing criteria as well as the number of monitors it faces. The more monitors and criteria, the more difficult it may be for the agency to adopt a consistent response strategy.

Marginal monitoring costs invite different considerations. If the marginal costs of monitoring issues are increasing, then strategic agencies may be able to overwhelm overseers more effectively by bundling rather than splitting. Marginal costs may be increasing due to information-processing constraints – the limited resources and attention necessary to make high-quality decisions.¹³⁶ Bundling makes it more expensive for monitors to review because each additional subject in a rule is increasingly costly to evaluate, which may lead resource-constrained agencies to skim over some provisions. As a result, the most contentious provisions are likely to gain more attention, thus allowing less contentious ones to fly under the radar. In this scenario, bundling can serve to insulate some issues from review and reversal. Thus, under increasing marginal costs, one would expect agencies to engage in more bundling. Conversely, with decreasing marginal costs, one would expect less bundling.

In short, the fixed and marginal costs can result in cross-cutting incentives for agencies. Some of these incentives are themselves dependent on the number of monitors agencies face as well as their salience, and on the possible auditing strategies that monitors might adopt. It is thus ambiguous as a matter of theory whether a strategic agency will be more likely to bundle or split when facing adverse oversight. The question must be resolved empirically and with attention to the possible heterogeneous effects across types of rules.

2. Political and Judicial Review

Agencies face slightly different incentives for how to structure their rules when confronted with review by the President, Congress, or the courts. Their ultimate bundling decisions may vary depending on which overseer they are likely to face most often. To explore these dynamics, this Section focuses more specifically on various monitors in the administrative state: the incentives they create as well as their ability, if any, to bundle and split agency rules themselves. It is important to acknowledge that interest groups and the general public are

^{135.} Monitors from smaller organizations with fewer resources may also adapt by forging relationships with larger-scale monitors who may be better positioned to identify rules of mutual interest. *See* Mallory & McDermott Interview, *supra* note 132. Alternatively, resource-constrained monitors may rely on trade presses and newsletters or more informal contacts within agencies with better access to information about agency activities. *Id.*; *see also* Culver Interview, *supra* note 100.

^{136.} See Bertram Myron Gross, The Managing of Organizations 857 (1964).

also important monitors. Their influence, however, largely operates through the monitors discussed below.

a. Office of Information and Regulatory Affairs

The President's principal regulatory check operates through a centralized process coordinated by OIRA.¹³⁷ A bipartisan series of presidents have by executive order required executive agencies to submit proposed and final rules to OIRA for review.¹³⁸ In particular, these agencies must submit "significant" rules, including those deemed "economically significant," that is, those expected to cost \$100 million or more annually.¹³⁹ Economically significant rules are more likely to be publicly salient, heightening the risk of presidential reversal.¹⁴⁰ Agencies seeking to avoid that outcome would benefit from splitting costly rules into parts, each of which falls beneath the \$100 million threshold.¹⁴¹ So, for example, an economically significant rule with an expected impact of \$150 million in a given year could be split into two separate rules, each of which is expected to cost

- 139. Id. § 6(a)(3)(B), 3 C.F.R. at 645. To be significant, a regulatory action must meet at least one of four sets of flexible criteria: it might raise potential inconsistencies with other agencies, "materially alter the budgetary impact of" certain programs, invoke "novel legal or policy issues," or be economically significant.
- 140. Public logs also reveal that such rules are more likely to become the subject of meetings between OIRA staff and interested parties, suggesting heightened public scrutiny as well. See Steven Croley, White House Review of Agency Rulemaking: An Empirical Investigation, 70 U. CHI. L. REV. 821, 844, 871-72 (2003).
- 141. See Declaration of Richard B. Belzer at 9, Tafas v. Dudas, 530 F. Supp. 2d 786 (E.D. Va. 2008) (No. 1:07-cv-00846-JCC-TRJ), http://www.rbbelzer.com/uploads/7/1/7/4/7174353/tafas _ex-21-belzer-declaration.pdf [https://perma.cc/GY5T-4YTD] ("During my tenure in OIRA, I often observed agencies attempt to split draft regulations into smaller parts so as to avoid exceeding the \$100 million threshold for a 'major' or 'economically significant' regulation, presumably in hopes of avoiding the requirements to prepare a Regulatory Impact Analysis."); Note, *supra* note 6, at 1002; Donald R. Arbuckle, OIRA and Presidential Regulatory Review 15 (May 3, 2008) (unpublished manuscript), https://works.bepress.com /donald_arbuckle/1 [https://perma.cc/684K-6378] (observing that agency officials often "divided potential major rules into two or more non-major components, and in other cases they might argue that the estimated costs or benefits were under the \$100 million threshold").

^{137.} See Nicholas Bagley & Richard L. Revesz, Centralized Oversight of the Regulatory State, 106 COLUM. L. REV. 1260, 1261, 1264 (2006); Cass R. Sunstein, The Office of Information and Regulatory Affairs: Myths and Realities, 126 HARV. L. REV. 1838, 1839 (2013).

^{138.} More precisely, any agency that is not a statutorily-defined "independent regulatory agency" must submit regulatory actions to OIRA for review. See Exec. Order No. 12,866 § 3(b), 3 C.F.R. 638, 641 (1994) (defining "agency" using 44 U.S.C. § 3502(1) and excluding those agencies specified in § 3502(10), which has since been recodified at § 3502(5)).

\$75 million in that year. Individually, neither of these rules would be designated as economically significant, thus effectively lowering the scrutiny of executive oversight.

A strategic agency could also bundle a rule with high benefits and low costs with other rules it wishes to pursue that, standing alone, would not meet a costbenefit criterion. Say, for example, that a regulation dealing with reporting requirements promises \$1 million in benefits, but at a cost of \$5 million – it would not, on its own, be cost-benefit justified. However, say the agency is also considering another regulation restricting air pollution that would yield \$100 million in benefits and only \$50 million in costs. Combining these two rules would result in a regulation with \$101 million in benefits and \$55 million in costs, now passing a cost-benefit test. Regulatory-impact analysis also reveals the distributional effects of rules.¹⁴² Thus, agencies facing public criticism from certain groups can split proposed rules before finalizing them in order to favor specific populations.¹⁴³

The similar thresholds and criteria set by the Unfunded Mandates Reform Act (UMRA) reinforce all of these incentives.¹⁴⁴ UMRA directs agencies to assess regulatory impacts on state, local, and tribal governments as well as the private sector.¹⁴⁵ In particular, agencies must draft cost-benefit analyses for rules expected to cost \$100 million or more in any one year (and adjusted annually for inflation).¹⁴⁶ The Director of the Office of Management and Budget is charged with compiling those analyses and forwarding them to the Congressional Budget Office.¹⁴⁷ While monitoring by OIRA and Congress appears to be superficial, agencies seeking to avoid associated litigation risk have an increased incentive to split the rule into parts that fall below the UMRA threshold.¹⁴⁸

- 143. Emery Interview, supra note 75.
- 144. Unfunded Mandates Reform Act of 1995 tit. II, 2 U.S.C. §§ 1531-1538 (2018).
- 145. Id. § 1531.
- 146. Id. § 1532.
- 147. Id. § 1536.
- 148. See Connor Raso, Agency Avoidance of Rulemaking Procedures, 67 ADMIN. L. REV. 65, 105 (2015) (observing that "OIRA lacks the power to block rules where the agency avoided the UMRA" and that "[a]gencies that run afoul of OIRA risk only a negative report to Congress").

^{142.} Circular A-4 was issued by the Office of Management and Budget in 2003 to provide "guidance to Federal agencies on the development of regulatory analysis." It states that "regulatory analysis should provide a separate description of distributional effects (i.e., how both benefits and costs are distributed among subpopulations of particular concern) so that decision makers can properly consider them along with the effects on economic efficiency." *See* Office of Mgmt. & Budget, *Circular A-4, Regulatory Analysis*, EXECUTIVE OFF. PRESIDENT 1, 14 (Sept. 17, 2003), https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4 .pdf [https://perma.cc/2D74-ATL6].

For its part, OIRA has attempted to counter such strategic behavior by rebundling these rules into one rule now categorized as economically significant. In fact, according to a former OIRA branch chief, OIRA once had an informal agreement with EPA that the Agency would submit for review rules that cost over \$25 million per year.¹⁴⁹ The idea was to deter EPA from tactical splitting to avoid the \$100 million threshold. More recently, OIRA has issued similarly sensitive guidance addressing President Trump's two-for-one executive order, Executive Order 13,771.¹⁵⁰ In particular, the guidance warns agencies not to "artificially bundl[e] provisions that are not logically connected in a single regulatory action."¹⁵¹ OIRA acknowledges that agencies may very well have good reasons to package both regulatory and deregulatory provisions into one rulemaking, but OIRA also warns that it may ask agencies to split the rules into separate regulatory and deregulatory provisions absent any discernible rationale.¹⁵²

To begin to assess whether those agencies subject to OIRA review behave differently from those that are not, Table 1 below considers a more general set of political features and their relationship with bundling in proposed and final rules. For now, consider the first line of the table, which indicates that executive agencies include about 4.8 subjects in final rules, and that independent agencies include about 3.8 subjects – a difference of about one unit, which is statistically significant at any conventional level. This suggests that some aspect of executive agencies' statutory portfolio or oversight environment – most plausibly OIRA review – induces them to bundle more often. The same basic pattern exists for proposed rules, as shown in the bottom panel of the table.

152. Id.

^{149.} See Nou, supra note 6, at 1814 n.328.

^{150.} See Memorandum from Dominic J. Mancini, Acting Adm'r, Office of Info. & Regulatory Affairs, to Regulatory Policy Officers at Exec. Dep'ts & Agencies & Managing & Exec. Dirs. of Certain Agencies & Commc'ns (Apr. 5, 2017), https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2017/M-17-21-OMB.pdf [https://perma.cc/67TQ-WSPT].

^{151.} *Id.* at 15.

	Political Feature	No	Yes	Difference
Final Rules	Executive Agency	3.78	4.76	0.99**
	Election Year	4.72	4.64	-0.07*
	Presidential Election Year	4.7	4.63	-0.07
	Republican President	4.77	4.59	-0.19**
	Divided Government	4.59	4.74	0.15**
Proposed Rules	Executive Agency	3.36	4.58	1.21**
	Election Year	4.44	4.45	0.01
	Presidential Election Year	4.46	4.41	-0.05
	Republican President	4.76	4.14	-0.62**
	Divided Government	4.30	4.54	0.25**

TABLE 1. POLITICAL ENVIRONMENT AND BUNDLING BEHAVIOR

Note. ** Denotes a p-value of less than 0.01; * denotes a p-value of less than 0.05.

b. Congress

Congress's main opportunity to veto a regulation arises in the form of the Congressional Review Act (CRA).¹⁵³ The Act requires agencies to submit their final rules to both houses of Congress and to the Comptroller General.¹⁵⁴ In turn, both houses can pass a fast-tracked joint resolution of disapproval that if signed by the President—or passed by two-thirds of both houses over a presidential veto—nullifies the regulation under review.¹⁵⁵ The tool has recently been revived by the Trump Administration, after a relatively dormant period in which it operated more as a "soft veto," exercised through threats.¹⁵⁶ Importantly for our

^{153. 5} U.S.C. §§ 801-808 (2018). Congress, of course, has many other tools at its disposal, including appropriations riders and the like. See Jack M. Beermann, Congressional Administration, 43 SAN DIEGO L. REV. 61, 69, 84 (2006). Appropriations riders, in particular, may likewise serve many of the functions of a veto, see id. at 69, and deserve further attention in future research.

^{154. 5} U.S.C. § 801(a)(1)(A). More specifically, agencies must submit a report that contains the rule, a concise general statement describing the rule, and the rule's proposed effective date. *Id.*

^{155.} *Id.* § 801(a)(3)(B), (b)(1).

^{156.} See Adam M. Finkel & Jason W. Sullivan, A Cost-Benefit Interpretation of the "Substantially Similar" Hurdle in the Congressional Review Act: Can OSHA Ever Utter the E-Word (Ergonomics) Again?, 63 ADMIN. L. REV. 707, 728 (2011). Until recently, the CRA had only been used once –

purposes, the prescribed text¹⁵⁷ of the joint resolution suggests that Congress can only veto entire rules, not just component parts – a reading supported by the legislative history.¹⁵⁸ Furthermore, the resolution's procedure prohibits any amendments, and the final vote is up or down, foreclosing the possibility that the rule could be split on the floor.¹⁵⁹ At the same time, legislators are unable to bundle multiple rules into the same joint resolution of disapproval, so promulgated rules must be considered separately.¹⁶⁰ As a result, Congress can only veto rules in their entirety.

On the one hand, holding fixed compliance costs constant,¹⁶¹ agencies have an incentive to split rules under the CRA in order to decrease the risk that Congress will nullify provisions packaged together with the offending provision. In other words, Congress may only dislike one provision in a rule, but nevertheless feel compelled to overturn the entire bundled rule given the constraints of the CRA. Agencies could thus seek to save those vulnerable provisions by cabining them in a separate rulemaking. On the other hand, agencies may also want to bundle a number of provisions in order to heighten the consequences of the CRA's all-or-nothing requirement. By packaging highly favorable provisions into a rule, an agency could make it less likely for Congress to strike the rule

- 157. 5 U.S.C. § 802(a) ("'That Congress disapproves the rule submitted by the ______ relating to ______, and such rule shall have no force or effect.' (The blank spaces being appropriately filled in).").
- 158. See Morton Rosenberg, Whatever Happened to Congressional Review of Agency Rulemaking?: A Brief Overview, Assessment, and Proposal for Reform, 51 ADMIN. L. REV. 1051, 1066 (1999) (concluding that "the statutory structure and legislative history of the review provision strongly indicates that Congress intended the process to focus on submitted rules as a whole, and not to allow veto of individual parts").
- 159. Id. at 1065.
- **160.** See Larkin, *supra* note 156, at 251 (noting proposed legislative amendments "allowing Congress to bundle more than one rule into a joint resolution of disapproval rather than consider them one at a time").
- 161. For example, all agencies submitting rules under the CRA must prepare the same standardized form with an attachment, as appropriate, providing a concise statement of the rule. *See Submission of Federal Rules Under the Congressional Review Act* (Mar. 23, 1999), https://www .gao.gov/decisions/majrule/FED_RULE.PDF [https://perma.cc/TX7A-FRKB].

to overturn the Occupational Safety and Health Administration's ergonomics standard in March 2001. See MORTON ROSENBERG, CONG. RESEARCH SERV., RL30116, CONGRES-SIONAL REVIEW OF AGENCY RULEMAKING: AN UPDATE AND ASSESSMENT OF THE CON-GRESSIONAL REVIEW ACT AFTER A DECADE 6 (2008); see also Paul J. Larkin, Jr., Reawakening the Congressional Review Act, 41 HARV. J.L. & PUB. POL'Y 187, 190 (2018) (noting that the CRA has been used under the Trump Administration to veto fifteen regulations from the last year of the Obama Presidency alone).

down at all – especially since the CRA does not allow agencies to promulgate any substantially similar rules once nullified.¹⁶²

To explore the possibility that disagreement between the branches might affect bundling behavior, turn again to Table 1. One would generally expect the most pronounced effect of the CRA to occur during times of divided government, when one party controls at least one house of Congress and the other party controls the Presidency. However, divided government does not seem to influence greatly the extent of bundling. For final rules, the number of subjects is about the same regardless of divided government, increasing by about 0.15 units during divided government; for notices, the number of subjects is greater during times of divided government, but likewise only modestly so, increasing by about 0.25 units. This pattern suggests that conflict with Congress at most modestly increases bundling by agency officials – owing to the CRA or other congressional tools.

To examine the CRA's bundling effects more closely, consider that the CRA is most effective during transitions to unified government after the White House changes parties. By its own terms, the CRA has limited reach—the fast-track procedures are available for only sixty days after Congress receives the rule.¹⁶³ This means that Congress can reach only into recent regulatory history and is barred from attacking regulations issued even several months earlier. It may be in this narrow window only—when Congress and the President both oppose regulations recently issued by a President of the opposing party—that one is most likely to find effective congressional opposition.

The rules most likely to be subject to these effects, therefore, are those issued in the final months of a presidential administration, particularly the "midnight" period after the presidential election but before the inauguration of the next President, especially one from the opposing party.¹⁶⁴ However, as reported in Table 2, if one examines notices and rules issued in the last November, December, and January of the Clinton, George W. Bush, and Obama Administrations, and compares bundling to the notices and rules issued in those same months of the year prior, one does not in fact see notable changes in bundling behavior. This suggests that the modest effects noted above may derive from agency con-

^{162. 5} U.S.C. § 801(b)(2).

^{163.} Id. § 802(a).

^{164.} See Stiglitz, *supra* note 78, at 137. While it is true that rules before this period could be subject to disapproval under the CRA, the November elections would provide more certainty as to the relevant political dynamics that would make disapproval more or less likely.

siderations of other congressional tools or reflect other dynamics outside of this simple probing exercise.¹⁶⁵

TABLE 2. MIDNIGHT RULES AND BUNDLING

	Mean Subjects for "Midnight" Rules	Mean Subjects for Comparison Rules	Difference
Final Rules	4.70	4.90	-0.19
Proposed Rules	4.24	4.43	-0.18

Note. For the purposes of this table, the "midnight" period is the time from the final November to the following January 20 of the second terms of Presidents Clinton, George W. Bush, and Obama. The comparison period consists of those months, one year earlier in those administrations. The differences in bundling are not close to statistically significant for either proposed or final rules.

More generally, there is only tentative evidence that political factors drive bundling behavior. The results suggest that elections may modestly drive down bundling behavior for some rules. This is evident from the "election year" rows in Table 1, which compare years with a congressional election against odd years. These "election years" include all years with a congressional election, regardless of whether there is a presidential election or not. In election years, we see a slight downtick in bundling behavior, at least for final rules. In those years with a presidential election, however, there are no significantly discernable effects. These results may reflect the increased incentives of those running for Congress to highlight pending regulatory issues they regard as unpopular – a dynamic which would also tend to discourage administrations from pressing controversial regulatory issues during election years. Overall, these preliminary exercises suggest that congressional opposition and political salience may modestly influence agency bundling behavior. Future research might consider other measures of congressional threat to agencies as well as the differential impact of oversight on various categories of rules and agencies.

^{165.} For example, the statutes that occupy agencies' attention may happen to be different during periods of divided government than those of unified government, for reasons entirely apart from strategic considerations.

c. Courts

Finally, agency actions are subject to oversight by the courts, which can bundle and split regulations during litigation and in the remedial phase. During litigation, aggrieved parties can move to consolidate or coordinate judicial review of separate regulations, or courts can sua sponte issue orders to do so. These "batching" decisions are an exercise of courts' powers to manage multiple lawsuits sharing common questions of law or fact.¹⁶⁶ They amount to the judicial ability to bundle or split rules under the auspices of a single case to review.

In the remedial phase, courts can vacate rules as a whole or simply sever individual provisions found to be illegal. To make this decision, courts usually apply a two-part test. First, they will ask whether the agency would have promulgated the rule even without the unlawful provision.¹⁶⁷ If they determine the agency would have, then they will ask whether the remainder of the rule would still be operative.¹⁶⁸ On remand, the action taken by the agency with respect to that rule must comply with the court's remedial decision. For instance, if the agency addresses a provision that the court had previously vacated and severed from the remainder of the rule, the provision may stand alone in the renewed effort, effectuating a form of splitting. Alternatively, a reviewing court might determine that the agency has neglected a dimension of the problem. On remand, agencies may decide to address those additional issues in a single rulemaking that might otherwise have been treated separately.¹⁶⁹

How agencies will behave in anticipation of judicial review is ambiguous as a matter of theory. More judicial scrutiny could lead to more bundling, which might help to obscure agency policy innovations. It may be harder for commenters, litigants, and judges to parse problematic parts of a rule that are bundled with many unproblematic parts. Likewise, to the extent various issues addressed in a rule appear interdependent, courts may be reluctant to meddle with any sin-

^{166.} See FED. R. CIV. P. 42(a)(1)-(2) (permitting courts to "join for hearing or trial any or all matters at issue in the actions" and "consolidate the actions" if the "actions before the court involve a common question of law or fact"). The Ninth Circuit has designed rules to promote efficiency by "batching'... appeals that implicate analogous questions or similar legislation before one argument panel and designating 'lead cases' in which the panel opinion would affect a group of subsequent matters presenting a common issue." Carl Tobias, *Fourth Circuit Publication Practices*, 62 WASH. & LEE L. REV. 1733, 1754 (2005) (citing NINTH CIRCUIT EVALUATION COMM., INTERIM REPORT 8-16 (Mar. 2000)).

See Charles W. Tyler & E. Donald Elliott, Administrative Severability Clauses, 124 YALE L.J. 2286, 2296 (2015).

¹⁶⁸. *See id.* Sometimes, agencies themselves include severability clauses to help inform the court's analysis, but the practice is uncommon. *Id.* at 2291.

^{169.} See infra notes 243-247 and accompanying text.

gle provision of the rule. Such dynamics would plausibly lead agencies to bundle issues more often when they face the possibility of an antagonistic court. That said, the relationship between agency bundling and judicial review could also run the opposite way: agencies may bundle less under more scrutiny. For instance, if courts recognize the act of bundling itself as a potential foul, thus increasing the odds of a court setting aside a rule on arbitrariness or other grounds,¹⁷⁰ then agencies might decrease bundling in response. Put differently, more forceful judicial policing could lead to more rule splitting by litigationaverse agencies.

By way of preliminary examination, consider the following measure of judicial scrutiny: the extent to which there is preference divergence based on the partisan identity of the judge's nominating party.¹⁷¹ The composition of the D.C. Circuit is most relevant, as that circuit has the greatest focus on administrative law matters.¹⁷² Moreover, because challenges to agencies' rules almost never reach the Supreme Court, the D.C. Circuit is in all likelihood the final resting place for administrative controversies.¹⁷³ To produce the measure of preference divergence, we first determine the proportion of active judges in a given year on the D.C. Circuit who were appointed by a Republican President.¹⁷⁴ During Democratic regimes, we use this quantity as a metric of judicial-preference divergence; during Republican regimes, we use one minus this quantity as the relevant metric. Thus, larger figures reflect a larger number of D.C. Circuit judges appointed by a President of the opposite party from the sitting President.

^{170.} See infra Section III.B.3.

 ^{17.} There is a robust debate on the appropriate method for measuring judicial preferences. See Joshua B. Fischman & David S. Law, What Is Judicial Ideology, and How Should We Measure It?, 29 WASH. U. J.L. & POL'Y 133 (2009). Compare, e.g., LEE EPSTEIN, WILLIAM M. LANDES & RICH-ARD A. POSNER, THE BEHAVIOR OF FEDERAL JUDGES: A THEORETICAL AND EMPIRICAL STUDY OF RATIONAL CHOICE (2013) (taking a law and economics approach), with Adam Bonica & Maya Sen, A Common-Space Scaling of the American Judiciary and Legal Profession, 25 POL. ANALYSIS 114 (2017) (using a scaling methodology). Future empirical work should extend the work here using alternative measures of judicial ideology.

^{172.} See John G. Roberts, Jr., What Makes the D.C. Circuit Different? A Historical View, 92 VA. L. REV. 375, 376-77 (2006).

^{173.} Cf. Adam Feldman, Looking Back to Make Sense of the Court's (Relatively) Light Workload, EM-PIRICAL SCOTUS (Jan. 9, 2018), https://empiricalscotus.com/2018/01/09/light-workload [https://perma.cc/FGR8-V4AT] (discussing the low number of cases actually decided each term by the Court).

^{174.} We calculate this quantity based on biographical data from the Federal Judicial Center. See Biographical Directory of Article III Federal Judges, 1789-present, FED. JUD. CTR., https://www .fjc.gov/history/judges/search/advanced-search [https://perma.cc/JQR9-84SS].

According to this measure, judicial scrutiny tends to be relatively high during the first term of an administration, before the sitting President has had an opportunity to appoint sympathetic judges to the court. During the first terms of Presidents George W. Bush, Obama, and Trump, for example, the average judicial scrutiny score is 0.62, indicating that almost two-thirds of the active judges on the circuit were appointed by a President of the opposing political party. By comparison, the average score during the second terms is 0.37, indicating that in their second terms Presidents face judges appointed by a President of the opposing party closer to one-third of the time.¹⁷⁵

The question of interest is whether agency bundling increases, decreases, or is unaffected by changes in judicial scrutiny. Perhaps surprisingly, our initial results suggest that judicial-preference divergence is unrelated to bundling behavior, indicating that other regulatory actors may be more significant. The correlation between judicial scrutiny and bundling is virtually zero.¹⁷⁶ Moreover, decomposing the regulatory actions along various dimensions results in the same basic finding that no influence persists. There seems to be no relationship, that is, between judicial scrutiny and bundling for proposed and final rules by executive and independent agencies. While other measures of judicial scrutiny should be considered, these initial results may suggest that other institutional monitors like the President and Congress are stronger motivators of bundling behavior than the courts.

There are several potential explanations for these results. First, the splitting incentives described above may operate on some rules and the bundling incentives described above may operate on other rules, combining to an essentially null effect on average. In this scenario, judicial scrutiny *does* have significant effects on bundling behavior, but the effects offset each other in the data. Second, it is also possible that courts do not police this question of bundling as assidu-

^{175.} To provide context for these numbers, consider that the D.C. Circuit currently has eleven seats for active judges. The data indicate that Presidents begin their terms with about seven judges appointed by the opposing party, and end with about four judges appointed by the opposing party, after three judges appointed by the opposing party vacate their seats for various reasons.

^{176.} Specifically, the correlation between the two measures is 0.007, and it is not significant at the conventional level even with over fifty thousand observations. More sophisticated examinations that look within presidential administrations or within agencies show the same pattern: judicial scrutiny bears almost no relationship to bundling behavior, on average. See Jennifer Nou & Edward H. Stiglitz, Bundling Supplementary Materials (unpublished manuscript) (on file with authors). Of course, these null results may reflect heterogeneous effects: scrutiny may increase bundling for some types of rules and decrease it for other types of rules, producing, on average, an effect that approaches zero. Such explanations call for further attention and investigation. But to a first approximation, there does not appear to be any relationship between this measure of judicial scrutiny and our maintained measure of agency bundling.

ously as they might.¹⁷⁷ Finally, it may be that agencies do not much heed court composition for a variety of reasons. For instance, agencies are unlikely to be able to predict the partisan composition of their particular judicial panels. Many panel assignments are random or otherwise influenced by factors outside the litigants' control.¹⁷⁸ It is therefore difficult for agencies to structure their rulemaking behavior in anticipation of a particular set of judges. Moreover, only a highly limited proportion of agency rules are subject to litigation, and even then the risks of such litigation are not always predictable ex ante.¹⁷⁹ The remedies may also not be clear in advance – courts often exercise their equitable discretion in deciding whether to use vacatur as a judicial remedy.¹⁸⁰

The standards that courts use to bundle and split rules during litigation are also murky. The D.C. Circuit distinguishes between consolidated and coordinated cases, which result in either a single opinion or multiple judicial opinions, respectively.¹⁸¹ The court does not, however, provide clear guidance on how

^{177.} See infra Section III.B.3.

^{178.} See Michael Abramowicz & Maxwell Stearns, Defining Dicta, 57 STAN. L. REV. 953, 1009 (2005) ("In the Courts of Appeals, panels are the product of random draws of three among a larger set of members of the court."). But see Adam S. Chilton & Marin K. Levy, Challenging the Randomness of Panel Assignment in the Federal Courts of Appeals, 101 CORNELL L. REV. 1, 38 (2015) (finding "evidence that panels are nonrandom in four circuits: the D.C. Circuit, the Second Circuit, the Eighth Circuit, and the Ninth Circuit"); Marin K. Levy, Panel Assignment in the Federal Courts of, 81 (2017) (finding that courts did not employ strictly random panel assignments during the time period of the study).

^{179.} See Raso, supra note 148, at 89, 127.

^{180.} See Ronald M. Levin, "Vacation" at Sea: Judicial Remedies and Equitable Discretion in Administrative Law, 53 DUKE L.J. 291, 323 (2003) (describing "a variety of situations in which courts have continued to adhere to the kind of flexibility that is characteristic of traditional equitable discretion" when deciding whether or not to vacate a rule after remand).

^{181.} Consolidated cases in the D.C. Circuit are "treated as one appeal for most purposes" in that they "follow a single briefing schedule, they are assigned for hearing on the same day before the same panel, argument time is allotted to the cases as a group, and they are decided at the same time." Handbook of Practice and Internal Procedures, U.S. CT. APPEALS FOR D.C. CIR. 24 (July https://www.cadc.uscourts.gov/internet/home.nsf/Content/VL%20 2, 2018) -%20RPP%20-%20Handbook%202006%20Rev%202007/\$FILE/HandbookJuly2018WITH TOCLINKS.pdf [https://perma.cc/GLU9-5QL6]. D.C. Circuit internal procedural rules also provide, however, that even after a case is consolidated, individual litigants still maintain the ability to file separate motions. Id. Consolidation, in other words, yields a single judicial opinion informed by a single set of briefs and oral arguments. Coordinated cases, by contrast, result in separate judicial opinions informed by separate briefs; they are still heard, however, before the same judicial panel. See Gregory E. Wannier, How Many Suits Is Too Many? Consolidation and Coordination Possibilities in EPA Climate Litigation, CLIMATE L. BLOG (Oct. 22, http://blogs.law.columbia.edu/climatechange/2010/10/22/how-many-suits-is-too 2010). -many-consolidation-and-coordination-possibilities-in-epa-climate-litigation [https:// perma.cc/M39S-Q4N5] ("Case coordination involves hearing multiple cases before the same

judges should choose one approach over the other, leaving it instead to their managerial discretion. To illustrate what can be at stake, return again to the Obama EPA's greenhouse-gas regulations. Recall that EPA had initially opened a single rulemaking docket, but then issued four separate rules dealing with carbon dioxide. The Endangerment Finding determined that carbon dioxide endangered "public health and welfare."¹⁸² The Tailpipe Rule set emission standards for cars and light trucks.¹⁸³ The Triggering Rule determined that the Clean Air Act required major stationary sources to obtain construction and operating permits.¹⁸⁴ And the Tailoring Rule limited the requirement only to the largest stationary sources.¹⁸⁵

A coalition of businesses, interest groups, and U.S. Representatives filed a motion to coordinate review of all four rules before the same judicial panel.¹⁸⁶ In their view, "the cases [were] substantively interrelated so as to 'amount[] to a single policy approach'" – evidenced by EPA's own concession that the rules are "related."¹⁸⁷ These industry groups also characterized EPA's opposition to their motion as an attempt to dismiss their challenges based on standing principles, particularly dealing with injury-in-fact and causation. Separate judicial review, the industry groups argued, "could result in an attempt to call for 'a more appropriate forum' in every case, and thereby deny all forums for review."¹⁸⁸ One

panel, with a goal of yielding complementary decisions in cases where challenges cover related activities.").

- 183. Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. 25324 (May 7, 2010) (to be codified at 40 C.F.R. pts. 85, 86, 600; 49 C.F.R. pts. 531, 533, 536, 537, 538).
- 184. Reconsideration of Interpretation of Regulations that Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 Fed. Reg. 17004 (Apr. 2, 2010) (to be codified at 40 C.F.R. pts. 50, 51, 70, 71).
- 185. Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31514 (June 3, 2010) (to be codified at 40 C.F.R. pts. 51, 52, 70, 71).
- 186. See Wannier, supra note 181.
- 187. More specifically, EPA's argument was that "taken together . . . [these rules] will subject [greenhouse gases (GHGs)] emitted from stationary sources to [Prevention of Significant Deterioration (PSD)] requirements, and limit[] the applicability of PSD requirements to GHG sources on a phased-in basis." *Id.* (first and fourth alterations in original) (quoting Action to Ensure Authority to Issue Permits Under the Prevention of Significant Deterioration Program to Sources of Greenhouse Gas Emissions: Finding of Substantial Inadequacy and SIP Call, 75 Fed. Reg. 53892 (proposed Sept. 2, 2010) (to be codified at 40 C.F.R. pt. 52)).
- 188. Id. (citing Motion for Coordination of Related Cases at 16-19, Coal. for Responsible Regulation, Inc. v. EPA, 684 F.3d 102 (D.C. Cir. 2012) (No. 10-1131)).

^{182.} Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496; 66496 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1); see 42 U.S.C. § 7521(a)(1) (2018).

potential motivation for their motion may have been the hope that the more legally tenuous and politically controversial aspects of the Triggering and Tailoring Rules would bring down the Endangerment Finding with it.

Perhaps unsurprisingly, EPA, as well as a coalition of nineteen states and the City of New York, filed a motion in opposition to coordination. While conceding that the Timing and Tailoring Rules were interrelated enough to warrant consolidation (not mere coordination), the motion argued that combining review of the Endangerment Finding and Tailpipe Rule would confuse courts with different administrative records and "*entirely* separate" legal questions.¹⁸⁹ EPA also pointed out that D.C. Circuit rules allowed petitioners to use evidence outside the administrative record to establish standing, thus mitigating any justiciability concerns.¹⁹⁰ By opposing coordination, EPA was likely hedging its bets. Even if the Agency met one judicial panel hostile to its efforts to address climate change, it might still be able to salvage parts of its program before another, friendlier panel.

III. IMPLICATIONS

This Part takes a step back to consider the phenomenon of regulatory bundling in terms of the rulemaking process. After reflecting upon the role of bundling during notice and comment, the next Section considers the broader implications of regulatory bundling for political monitors and the courts. If the phenomenon derives from the influence of narrow special interests, then tools like the single-subject rule or a line-item veto may be appropriate. Yet even if it does not, revised doctrines of judicial review may nonetheless be wise to preserve the value of public participation. At the same time, regulatory bundling can yield benefits. The normative desirability of these general reforms requires further empirical analysis or a case-by-case approach attuned to the specific merits of a particular bundling decision. While such tasks are beyond this Article's scope, it will still explore factors that may help inform such work and identify more specific avenues for potential study.

190. Id.

^{189.} Id. (quoting Respondent's Opposition to Motion for Coordination of Cases and Cross-Motion for Consolidation of Consolidated Case No. 10-1131 with Consolidated Case No. 10-1073 at 16, Coal. for Responsible Regulation, 684 F.3d 102 (No. 10-1131)).

A. Regulatory Process

Notice-and-comment rulemaking, as its name suggests, requires agencies to give notice of a proposed rule in the Federal Register and then provide parties with an opportunity to submit comments.¹⁹¹ The agency must base the rulemaking upon consideration of those comments and include a statement of basis and purpose in the final rule adopted.¹⁹² Final rules adopted according to this procedure are generally considered legally binding.¹⁹³ On the one hand, public comments can improve regulations by allowing information gathering, spurring political monitoring, and fostering public deliberation.¹⁹⁴ On the other hand, the process can also facilitate capture by special-interest groups, as well as politicize an otherwise evidence-based issue.¹⁹⁵

^{191. 5} U.S.C. § 553 (2018).

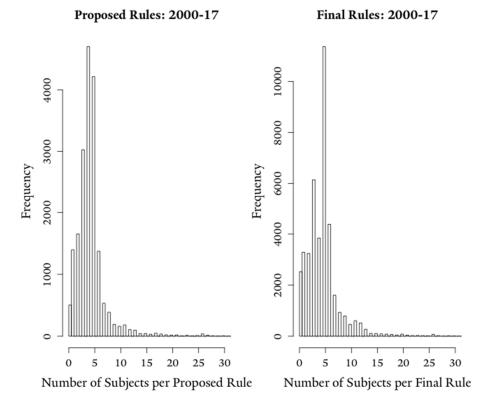
^{192.} *Id.* § 553(c).

^{193.} See, e.g., Kristin E. Hickman, Unpacking the Force of Law, 66 VAND. L. REV. 465, 476-77 (2013).

^{194.} See Michael A. Livermore et al., Computationally Assisted Regulatory Participation, 93 NOTRE DAME L. REV. 977, 983-87 (2018).

^{195.} See Dorit Rubinstein Reiss, Tailored Participation: Modernizing the APA Rulemaking Procedures, 12 N.Y.U. J. LEGIS. & PUB. POL'Y 321, 330-38 (2009).

FIGURE 4. HISTOGRAMS OF BUNDLING SUBJECTS

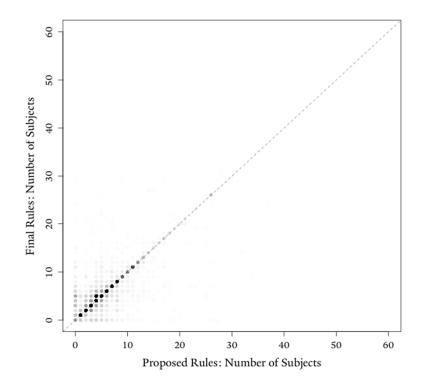


To understand better how this process may influence bundling, consider Figure 4 above, which displays a histogram of the number of subjects in proposed and final rules. As is evident from the figure, the number of subjects is rightskewed, with many rules listing very few subjects, and a distinct minority of rules listing a large number of subjects. Interestingly, final rules tend to contain more subjects than proposed rules; the average number of subjects in a proposed rule is 4.4, and the corresponding average for final rules is 4.7. This observation may suggest that agencies are increasing bundling through the notice-and-comment process – perhaps a kind of "bundling creep" whereby agencies include additional issues in a final rule. To examine this possibility, consider the evolution of bundling *within* rulemaking efforts.¹⁹⁶ We built a software program to match

¹⁹⁶. Note that earlier we examined the average number of subjects in proposed and final rules within agencies and found those correlations to be strong – agencies that list many subjects in their proposed rules also do so in final rules. Here, we look *within* rulemaking efforts.

proposed rules with final rules, thereby allowing us to examine how bundling changes across a rule's life cycle. Over the series, we identified almost 14,500 matches between proposed and final rules, accounting for over three-quarters of all proposed rules. The remaining rules may be unmatched for a number of reasons, including the fact that agencies frequently withdraw proposed rules or simply choose not to finalize them.¹⁹⁷

FIGURE 5. BUNDLING IN PROPOSED AND FINAL RULES



197. For the later parts of the series, many proposed rules will not have completed the rulemaking process – a rule proposed in 2017, for example, is quite likely not to have been finalized in our dataset; the "orphan" rate (rate of abandoned proposed rules) in 2017 is more than double the rate at the start of the series. In other cases, our algorithm may miss references to proposed rules in the final rules, for instance, because the agency used a nonstandard citation or recorded the citation to the proposed rule incorrectly. However, we suspect such instances are rare and, more importantly, essentially random. The algorithm works by searching final rules for references to proposed rules, and this may also lead to "false" matches, if, for example, a final rule cites distinct but perhaps related regulatory efforts. Based on an inspection of a random subset of matches, however, we believe the number of false matches to be relatively small and, as above, to operate mainly to introduce an element of noise but not bias.

Examining the evolution of bundling within a rulemaking effort reveals several features. First, most rules that start out with extensive bundling finish with extensive bundling. The correlation between the number of subjects in proposed and final rules is strongly positive at 0.80. Figure 5 plots the number of subjects in the final rule against the number of subjects in the matched proposed rule. As is shown by the darker shading, which indicates a density of rules, most rules fall along the line of perfect correspondence. Second, consistent with the findings above, when rules change the number of subjects in a rulemaking effort, they tend to increase them. This is also evident from Figure 5, which shows a greater density of rules above the line of correspondence than below it.

Quantitatively, fully one-quarter of rules increase the number of subjects listed during the rulemaking process. Almost seven in ten rules maintain the exact number of subjects throughout the process (sixty-nine percent); and fewer than one in ten decreases the number of subjects from proposed to final rule (six percent).¹⁹⁸ As an initial matter, it is possible these findings reflect agency coding practices rather than substantive changes in the regulatory language – a kind of measurement error. Because proposed rules are lower stakes than final rules, rule writers may not pay much attention to ensuring coding accuracy at the proposal stage.¹⁹⁹ Before finalizing rules, however, agencies may invest more time and effort in ensuring that the list of subjects is complete, as would the Office of the Federal Register during review.²⁰⁰ Therefore, the increase in subjects at the final-rule stage may simply reflect more careful coding efforts. Mitigating this possibility, however, is the fact that public commenters can criticize agencies for incomplete lists of subjects.²⁰¹ Such public scrutiny may help encourage agencies to publish complete subject lists at the proposal stage too.

If so, the results above likely reflect the incentives generated by the noticeand-comment process in favor of more bundling at the final-rule stage. Commenters might raise issues not initially contemplated by the agency, compelling agency officials to address them more specifically in the final rule. While agencies are constrained by the judicial requirement to ensure that final rules are a "logical

^{198.} Also note that, on average, agencies increase the number of subjects from proposed to final rule by almost a quarter unit (0.22).

^{199.} See Emery Interview, *supra* note 75. Final rules, unlike proposed rules, are legally binding and subject to litigation as final agency action. See 5 U.S.C. § 704 (2018).

^{200.} See Swidal Interview, supra note 41.

^{201.} See, e.g., Letter from Emily Kirkpatrick, Exec. Dir., Nat'l Council of Teachers of English, to Jennifer Bell-Ellwanger, Dir. of Policy & Program Studies Serv., U.S. Dep't of Educ. 3 (Nov. 17, 2017), https://www.regulations.gov/document?D=ED-2017-OS-0078-1354 [https://perma.cc/J4QV-FUU8] (suggesting that the Department of Education "add 'literacy' to the list of subjects" covered by a particular proposal).

outgrowth" of proposed rules, the requirement has limited bite in practice.²⁰² As a result, agencies may address more issues in the final rule to appease stakeholders who possess credible means of delaying or killing the regulatory effort.

Indeed, regulated entities could seek bundling for many reasons. Bundled rules facilitate predictability and planning by simultaneously imposing various regulatory obligations. Businesses can then invest in any necessary compliance technology all at once, instead of on an inefficient, piecemeal basis. Bundled rules could also be attractive to interest groups with wide-ranging agendas but narrow windows of opportunity to capture a regulatory drafter. Successful lobbyists might extract packages of perks and rewards as the opportunity arises. The revolving door, through which exiting regulators get hired by the regulated and vice versa, may also facilitate mutually beneficial relationships between agency insiders and industry members.²⁰³ These relationships may result in logrolling between repeat players. Agency staffers could trade off regulatory favors between regulations at different points in time, thus resulting in rules with more provisions.

B. Innovative Controls

Regulatory bundling also offers new perspectives on the kinds of controls available to agency monitors. While the standard account usually contemplates the President, Congress, and the courts striking down entire regulations, the lens offered here opens up new possibilities for the kinds of tools monitors can use to exercise oversight. As discussed below, the normative desirability of bundling and splitting remains contested and uncertain. The net effects require further empirical examination, the conclusions of which should help inform whether

^{202.} See Rybachek v. EPA, 904 F.2d 1276, 1287 (9th Cir. 1990) (noting, in a discussion of the logical-outgrowth doctrine, that "the fact that a final rule varies from a proposal, even substantially, does not automatically void the regulations"); Chocolate Mfrs. Ass'n v. Block, 755 F.2d 1098, 1105 (4th Cir. 1985) (parsing the logical-outgrowth analysis as requiring that "in the final analysis each case 'must turn on how well the notice that the agency gave serves the policies underlying the notice requirement" (quoting Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 547 (D.C. Cir. 1983))); Small Refiner Lead, 705 F.2d at 548-49 (characterizing the logical-outgrowth requirement merely to demand that a party "should have anticipated that such a requirement might be imposed"); cf. Int'l Union, United Mine Workers of Am. v. Mine Safety & Health Admin., 407 F.3d 1250, 1259-60 (D.C. Cir. 2005) (declaring that a final rule is not a "logical outgrowth" if it "is a brand new rule" or "where interested parties would have had to 'divine [the Agency's] unspoken thoughts" (alteration in original) (quoting Ariz. Pub. Serv. Co. v. EPA, 211 F.3d 1280, 1299 (D.C. Cir. 2000))).

²⁰³. For a nuanced discussion of these dynamics, see Wentong Zheng, *The Revolving Door*, 90 NOTRE DAME L. REV. 1265 (2015).

and the extent to which these reforms should be adopted. In anticipation of that work, this Section explores the tools that various parties could employ to encourage or constrain regulatory bundling. In doing so, the Section also sheds light on how current institutional practices may be influencing bundling decisions.

1. Line-Item Vetoes

Just as the line-item veto can be used to reduce the scope of bundled statutes, so, too, can it be used to pare back bundled regulations. The line-item veto has traditionally been understood as the ability of executive officials to cancel or nullify specific provisions of bills before signing them.²⁰⁴ While the mechanism has been well studied in the statutory context,²⁰⁵ its implications for the regulatory state have gone largely unexplored. One explanation may be the relatively mysterious nature of the OIRA review process. Few recognize, for example, that OIRA exercises a form of the line-item veto for regulations.²⁰⁶ After agencies submit their proposed and final rules for review, OIRA has the ability to cross out specific provisions and broader language unrelated to specific regulatory costs or benefits.²⁰⁷ Many have criticized this practice as legally illegitimate or unwise intermeddling in agency expertise.²⁰⁸

^{204.} See Indridi H. Indridason, Executive Veto Power and Credit Claiming: Comparing the Effects of the Line-Item Veto and the Package Veto, 146 PUB. CHOICE 375, 375 (2011).

^{205.} See, e.g., Glenn Abney & Thomas P. Lauth, The Line-Item Veto in the States: An Instrument for Fiscal Restraint or an Instrument for Partisanship?, 45 PUB. ADMIN. REV. 372 (1985); John R. Carter & David Schap, Line-Item Veto: Where Is Thy Sting?, 4 J. ECON. PERSP. 103 (1990); James A. Dearden & Thomas A. Husted, Do Governors Get What They Want?: An Alternative Examination of the Line-Item Veto, 77 PUB. CHOICE 707 (1993); James J. Gosling, Wisconsin Item-Veto Lessons, 46 PUB. ADMIN. REV. 292 (1986); Pat Thompson & Steven R. Boyd, Use of the Item Veto in Texas, 1940-1990, 26 ST. & LOC. GOV'T. REV. 38 (1994).

^{206.} Cf. Sunstein, supra note 137, at 1839 (observing that "the role of OIRA and the nature of the OIRA process remain poorly understood"). One exception is Steven Croley who has observed that "whereas the president lacks the ability to veto selective pieces of legislation, he enjoys a 'line-item veto,' so to speak, of agencies' regulatory initiatives." See Steven P. Croley, REGULATION AND PUBLIC INTERESTS: THE POSSIBILITY OF GOOD REGULATORY GOVERNMENT 97 (2008).

^{207.} See Lisa Heinzerling, Inside EPA: A Former Insider's Reflections on the Relationship Between the Obama EPA and the Obama White House, 31 PACE ENVTL. L. REV. 325, 344 (2014) (describing how OIRA "offered line-by-line edits of regulatory proposals"). This ability is referred to as the "narrative veto" in the statutory context. See, e.g., Abney Glenn & Thomas P. Lauth, Gubernatorial Use of the Item Veto for Narrative Deletion, 62 PUB. ADMIN. REV. 492 (2002).

^{208.} See, e.g., Wendy E. Wagner, A Place for Agency Expertise: Reconciling Agency Expertise with Presidential Power, 115 COLUM. L. REV. 2019, 2045 (2015).

Appreciating regulatory bundling, however, allows for a more nuanced assessment of the OIRA process. One hypothesis in the statutory context is that the line-item veto is a salutary means for the President to cut back on logrolling and pork-barrel politics.²⁰⁹ Indeed, this is often the rationale for OIRA review itself – a means for a nationally conscious Executive to check mission-oriented agencies who impose narrow regulatory costs.²¹⁰ A competing hypothesis is that the line-item veto results in an increase in special-interest bills.²¹¹ The possibility of a veto itself, that is, can induce the proposer to include more pork-barrel provisions in the hopes that some survive the veto threat. In fact, some have observed this practice in the regulatory context. Agencies will often add provisions to draft rules as bargaining chips that "would be available" for agencies "to give away" or use to negotiate during OIRA review in order to protect what they perceive as the most important provisions of a rule.²¹²

Most empirical work in the legislative context suggests that the line-item veto produces either no discernible effect²¹³ or an effect only under certain conditions, such as divided government.²¹⁴ A natural question, then, is whether these findings extend to the administrative state and how legislative, presidential, and agency preferences interact in the shadow of OIRA's line-item veto. Such evaluations could help inform a more meaningful debate about potential reforms to the OIRA process. This debate, for example, might raise inquiries analogous to those asked in the legislative arena. Instead of a line-item veto, for example, perhaps OIRA should only be granted a "package veto" over the entire regulation, rather than its parts.²¹⁵ Would doing so result in a more productive set of agency-White House dynamics or only more delay and ossification? These

- See, e.g., Croley, supra note 140, at 873-76; Elena Kagan, Presidential Administration, 114 HARV. L. REV. 2245, 2339-41 (2001).
- 211. See Robinson, supra note 209, at 414.
- 212. See Stuart Shapiro, The Role of Procedural Controls in OSHA's Ergonomics Rulemaking, 67 PUB. ADMIN. REV. 688, 693 (2007).
- 213. See Carter & Schap, supra note 205; Gosling, supra note 205; Indridason, supra note 204; Catherine C. Reese, The Line-Item Veto in Practice in Ten Southern States, 57 PUB. ADMIN. REV. 510 (1997); Thompson & Boyd, supra note 205.
- 214. See Adam R. Brown, *The Item Veto's Sting*, 12 ST. POL. & POL'Y Q. 183 (2012); Dearden & Husted, *supra* note 205; *cf*. Abney & Lauth, *supra* note 205 (discussing the increased use of the line-item veto in periods of divided government).
- 215. See Indridason, supra note 204, at 376.

^{209.} See, e.g., Glen O. Robinson, Public Choice Speculations on the Item Veto, 74 VA. L. REV. 403, 405 (1988).

perspectives also open up other institutional possibilities such as a line-item congressional veto, which would likely require an amendment to the Congressional Review Act.

2. Single-Subject Rules

Another potential innovation plainly relevant to regulatory bundling is a single-subject rule for the administrative state. Single-subject rules, as their name suggests, traditionally require a lawmaking body to address only a single "subject" per legislative bill.²¹⁶ Many state constitutions, for instance, impose such a rule on state legislatures.²¹⁷ The rationale varies from location to location, but tends to be rooted in one of several concerns. The dominant one is that a piece of legislation with multiple subjects might represent logrolling in which no individual provision enjoys majority support.²¹⁸ Say a piece of legislation that contains issue *A* does not have majority support, so the drafters join issue *B* to the bill. If a sufficient number of legislators favor issue *B* without strongly disfavoring issue *A*, the bill with both *A* and *B* will receive majority support. It might be, however, that *neither* issue *A* nor issue *B* enjoys majority support on its own, but that both issues become law by virtue of bundling. In this sense, a persistent fear is that logrolling works for the benefit of special-interest groups and at the expense of the general public.

Another fear is that allowing a piece of legislation to address multiple subjects may increase the size of government beyond the optimal level. Bundling

See Michael D. Gilbert, Single Subject Rules and the Legislative Process, 67 U. PITT. L. REV. 803, 805 (2006).

^{217.} Id. at 806; see also Rachael Downey et al., A Survey of the Single Subject Rule as Applied to Statewide Initiatives, 13 J. CONTEMP. LEGAL ISSUES 579 (2003) (surveying the application of the single-subject rule to initiatives in select states); Martha J. Dragich, State Constitutional Restrictions on Legislative Procedure: Rethinking the Analysis of Original Purpose, Single Subject, and Clear Title Challenges, 38 HARV. J. ON LEGIS. 103, 103-04 (2001) (citing the single-subject rule as an example of a procedural limitation imposed by a state constitution on the legislature); John G. Matsusaka & Richard L. Hasen, Aggressive Enforcement of the Single Subject Rule, 9 ELECTION L.J. 399 (2010) (discussing criticisms of aggressive enforcement of the single-subject rule); Robert F. Williams, State Constitutional Limits on Legislative Procedure: Legislative Compliance and Judicial Enforcement, 17 PUBLIUS 91 (1987) (citing single-subject rules as an example of a state-level constitutional procedural limitation on state legislature); Jeffrey Gray Knowles, Note, Enforcing the One-Subject Rule: The Case for a Subject Veto, 38 HASTINGS L.J. 563, 563 (1986) (discussing the use of a one-subject rule to reduce "pork barrel" legislation); Courtney Paige Odishaw, Note, Curbing Legislative Chaos: Executive Choice or Congressional Responsibility, 74 IOWA L. REV. 227, 229 (1988) (citing single-subject rules as one innovative solution to pork-barreling at the state level).

^{218.} See Gilbert, supra note 216, at 813-14.

allows measures to enter law that, standing alone, would not become law, arguably leading to excessive legislation. Those opposed to the growth of government may thus seek a single-subject rule. This position, of course, relies on some notion of the "optimal" size of government, a question about which there is no clear consensus.²¹⁹ Finally, another related concern is that bundling diminishes political accountability. Returning to our example with issues *A* and *B*, it is challenging for observers – and in particular for voters – to know whether their representatives supported issue *A* or *B*. If issue *B*, say, turns out to harm voters' interests, then the representative might plausibly defend himself by saying that he, too, opposed issue *B*, but ultimately voted for the bill to win passage for issue *A*. That statement may or may not be true and is difficult for the voter to evaluate, thus diminishing accountability.

Similar normative concerns could also motivate a single-subject rule for the administrative state. Logrolling within an agency or across agencies could produce momentum for a regulatory effort that otherwise would stall. Similarly, agency staff can attach provisions to rules that have been expedited by a political appointee to meet a statutory deadline.²²⁰ These regulatory riders may escape internal scrutiny due to the speed of rulemaking and receive only cursory review by an agency head who is distracted by higher-priority components. Concerns about the size of government also resonate in the regulatory context, as do threats to accountability posed by unelected bureaucrats.²²¹

A rule requiring regulations to deal with one subject at a time could be imposed by statute, executive order, or through judicial case law. How to define a "subject" is notoriously difficult as a linguistic and conceptual matter, and different institutional actors will likely be informed by different motivating concerns.²²² Congress, for example, may want to define a "subject" by reference to its own legislative bundles. This approach may require agencies to issue regulations under one statutory grant at a time, rather than pursuant to multiple authorities that upset the preferences of a specific enacting Congress. By contrast,

^{219.} For an attempt to answer this question, see Allan H. Meltzer & Scott F. Richard, *A Rational Theory of the Size of Government*, 89 J. POL. ECON. 914 (1981).

^{220.} See Emery Interview, supra note 75.

^{221.} See generally Richard A. Epstein, Design for Liberty: Private Property, Public Administration, and the Rule of Law (2011).

^{222.} See Robert D. Cooter & Michael D. Gilbert, A Theory of Direct Democracy and the Single Subject Rule, 110 COLUM. L. REV. 687, 687 (2010) ("Logic and language cannot yield a precise definition of 'subject."); Daniel H. Lowenstein, *Initiatives and the New Single Subject Rule*, 1 ELEC-TION L.J. 35, 47 (2002) ("The difficulty of applying the term 'subject' in a single subject rule... is that by its very nature, the permissible content of a 'subject' is infinitely and essentially malleable.").

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the President may see it as part of his constitutional duty to regulate coherently across all of his delegated authority. Thus, he may issue an executive order that defines "subject" in ways that allow him to advance his particular priorities or claim public credit more effectively.²²³

Alternatively, instead of specifying what a "subject" entails in advance, any of these actors, including the courts, could simply impose a duty to explain why a rule is bundled in a particular way. This approach would help mitigate the definitional problem, requiring agencies instead to provide a rationale at whatever level of generality they deemed appropriate. For example, OIRA's guidance under Trump's two-for-one executive order requires agencies to explain how regulatory provisions are "logically connected."²²⁴ OIRA then retains the authority to split the regulations as necessary to ensure compliance with the executive order. Courts could similarly require regulatory provisions to be sufficiently related and grant varying levels of deference to an agency's bundling explanation, as further discussed below. Because regulatory bundling often requires specialized knowledge – for instance, how a program in area *A* is likely to affect a program in area *B* – courts may not feel institutionally competent to assess the decision de novo.

3. Judicial Review

Judicial review, then, represents another device that could be used to calibrate agencies' bundling behavior. There are at least two doctrinal vehicles for such intervention.

a. Soft Looks

Courts can and do police bundling decisions under arbitrariness review.²²⁵ This standard – whether or not an agency action is "arbitrary or capricious" – is

^{223.} At the state level, there is also the interesting dynamic of the plural or "unbundled" executive, which may result in greater state-agency splitting to align with the interests of separate executives. See Christopher R. Berry & Jacob E. Gersen, The Unbundled Executive, 75 U. CHI. L. REV. 1385, 1386-87, 1404 (2008).

^{224.} OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, M-17-21, GUIDANCE IMPLE-MENTING EXECUTIVE ORDER 13771, TITLED "REDUCING REGULATION AND CONTROLLING REG-ULATORY COSTS" 15 (Apr. 5, 2017), https://www.whitehouse.gov/sites/whitehouse.gov/files /omb/memoranda/2017/M-17-21-OMB.pdf [https://perma.cc/NA6Z-6WXK].

^{225.} See 5 U.S.C. § 706(2)(A) (2018).

generally understood as demanding evidence-based explanation.²²⁶ While courts have sometimes described this as "hard look review," they are also quick to emphasize that such review should be "narrow" and not displace the agency's well-considered judgment.²²⁷ In practice, judges indeed appear to be deferential to agencies under the arbitrary and capricious test, especially at the Supreme Court²²⁸ – perhaps invoking it only intermittently to ensure that it remains a credible threat.

This general orientation – a "soft" rather than "hard" look, if you will – seems appropriate when it comes to the review of regulatory bundling. One reason is that bundling can be understood as an agency choice about policy-making form, a decision about which courts are generally deferential if the underlying statute is otherwise silent.²²⁹ Agencies also possess the comparative expertise necessary to assess the potential benefits and harms of bundling. The practice may, for example, lower compliance costs for regulated industries by imposing one-time investments in technology. Indeed, this was the sensible rationale provided by a Department of Health and Human Services final regulation consolidating into one rule what had previously been four proposed and interim final rules.²³⁰ Bundling could also reflect productive and necessary bargaining between agency actors and political monitors. These factors suggest that courts

- 227. See Motor Vehicle Mfrs. Ass'n, Inc. v. State Farm Mut. Auto. Ins, 463 U.S. 29, 43 (1983) ("The scope of review under the 'arbitrary and capricious' standard is narrow and a court is not to substitute its judgment for that of the agency.").
- 228. See Jacob Gersen & Adrian Vermeule, *Thin Rationality Review*, 114 MICH. L. REV. 1355, 1358, 1367 (2016) (observing that "agencies have won no less than 92 percent of . . . arbitrariness challenges" in the Supreme Court and that "[t]he days of systematically aggressive hard look review, as in the D.C. Circuit's decisions from the 1970s and early 1980s, are mostly behind us").
- 229. See NLRB. v. Bell Aerospace Co., 416 U.S. 267, 294 (1974); SEC v. Chenery Corp. (Chenery II), 332 U.S. 194, 203 (1947) ("[T]he choice made between proceeding by general rule or by individual, ad hoc litigation is one that lies primarily in the informed discretion of the administrative agency."); Magill, supra note 1, at 1403-05.
- 230. Modifications to the HIPAA Privacy, Security, Enforcement, and Breach Notification Rules Under the Health Information Technology for Economic and Clinical Health Act and the Genetic Information Nondiscrimination Act; Other Modifications to the HIPAA Rules, 78 Fed. Reg. 5566, 5566 (Jan. 25, 2013) (to be codified at 45 C.F.R. pts. 160, 164) ("This final rule is comprised of four final rules, which have been combined to reduce the impact and number of times certain compliance activities need to be undertaken by the regulated entities.").

^{226.} See Kathryn A. Watts, *Proposing a Place for Politics in Arbitrary and Capricious Review*, 119 YALE L.J. 2, 2 (2009) ("Current conceptions of 'arbitrary and capricious' review focus on whether agencies have adequately explained their decisions in statutory, factual, scientific, or otherwise technocratic terms.").

should act with deference toward an agency's decisions about its own bundling practices.

At the same time, it is important for courts to continue to use arbitrariness review to invalidate particularly troubling instances of bundling that lack sufficient justification. Consider, for example, the Eleventh Circuit's decision in AFL-CIO v. OSHA,²³¹ which struck down OSHA's Air Contaminants Standard rule. The court applied a standard more stringent than arbitrary and capricious review due to the underlying statute, but the case nevertheless illustrates an approach that we view favorably.²³² After the initial promulgation of "start-up" standards based on already-existing federal requirements,²³³ OSHA had historically managed to issue regulations dealing with only 24 toxic substances, and it had addressed these substances only one at a time.²³⁴ In this bundled rulemaking, however, the Agency decided to attempt to deal with 428 substances all at once. In OSHA's view, "it would take decades to review currently used chemicals and OSHA would never be able to keep up with the many chemicals which will be newly introduced in the future."235 Further, the OSHA chief stated that by treating over 400 substances in one regulation, the Agency could "make a 20-year leap forward in the level of worker protection in a relatively short time."236 Interested parties had only forty-seven days to comment on the entire rule, followed by a thirteen-day public hearing.²³⁷

The appeals court vacated the regulation due to the Agency's failure to make a separate scientific case for each individual substance's health risks.²³⁸ While acknowledging that the rulemaking may have been "the only practical way of

²³¹. 965 F.2d 962 (11th Cir. 1992).

^{232.} *Id.* at 970 ("Substantial evidence' is 'such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.' Under this test, 'we must take a "harder look" at OSHA's action than we would if we were reviewing the action under the more deferential arbitrary and capricious standard applicable to agencies governed by the Administrative Procedure Act.'" (citations omitted) (first quoting Am. Textile Mfrs. Inst., Inc. v. Donovan, 452 U.S. 490, 522 (1981); and then quoting Asbestos Info. Ass'n v. OSHA, 727 F.2d 415, 421 (5th Cir. 1984)))).

^{233.} Id. at 968; see 29 U.S.C. § 655(a) (2018).

²³⁴. *AFL-CIO*, 965 F.2d at 971.

^{235.} *Id.* (quoting Air Contaminants, 53 Fed. Reg. 20960, 20963 (proposed June 7, 1988) (to be codified at 29 C.F.R. pt. 1910)).

^{236.} Frank Swoboda, OSHA Tightens Rules on Worker Hazards, WASH. POST (Jan. 14, 1989), https://www.washingtonpost.com/archive/politics/1989/01/14/osha-tightens-rules-on -worker-hazards/a71881b3-f6ce-401c-a03e-1dbd2378be5b [https://perma.cc/HBQ3 -ULWM].

^{237.} AFL-CIO, 965 F.2d at 969.

^{238.} Id. at 987.

accomplishing a much needed revision," the court nonetheless expressed skepticism about the Agency's method for doing so – even accusing the Agency of being "misleading" in labelling its regulation as "generic."²³⁹ In addition, the Agency's proffered reasons – in particular the need for expediency – were candid, but unsupported by the evidentiary record.²⁴⁰ The court also complained that the Agency's extreme bundling stymied judicial review.²⁴¹ As a result, the opinion was only able to provide representative problems with the rule and could not address each of its flaws.²⁴² In this manner, a court was able to police a regulation that had bundled provisions in a way that subverted public and judicial monitoring.

Interestingly, arbitrariness review has also been used by courts to set aside rules that fail to consider other rules that are closely related. In *Spirit of the Sage Council v. Norton*,²⁴³ for instance, a district court reviewed two rules issued by the Fish and Wildlife Service (FWS) and the National Marine Fisheries Service pursuant to the Endangered Species Act. The first rule, the "No Surprises Rule," provided that landowners who submit a habitat conservation plan would not be required to expend additional financial resources or accept additional restrictions on property use, so long as they abided by the terms of the plan.²⁴⁴ A subsequent regulation, the "Permit Revocation Rule," provided that the assurance of "no surprises" could be revoked under certain circumstances.²⁴⁵ Without identifying any substantive deficiencies, the district court held that the two rules were "sufficiently intertwined" and thus remanded the case to FWS so that the Agency could jointly consider the related provisions.²⁴⁶ After the D.C. Circuit denied FWS's motion for a stay pending appeal, the agencies bundled the rules and so-licited comments on what had previously been two separate rulemakings.²⁴⁷

^{239.} *Id.* at 972, 987 (noting that "the new Air Contaminants Standard is an amalgamation of 428 unrelated substance exposure limits" where "[t]here is little common to this group of diverse substances except the fact that OSHA considers them toxic and in need of regulation").

^{240.} Id. at 986.

^{241.} *Id.* ("OSHA has lumped together substances and affected industries and provided such inadequate explanation that it is virtually impossible for a reviewing court to determine if sufficient evidence supports the agency's conclusions.").

^{242.} *Id.* (noting that "[t]he individual substances discussed in this opinion are merely examples of what is endemic in the Air Contaminants Standard as a whole").

^{243. 294} F. Supp. 2d 67 (D.D.C. 2003), vacated as moot, 411 F.3d 225 (D.C. Cir. 2005).

^{244.} Id. at 77.

^{245.} Id. at 79.

^{246.} Id. at 91.

^{247.} Endangered Species Act Incidental Take Permit Revocation Regulations, 69 Fed. Reg. 71723 (Dec. 10, 2004) (amending 50 C.F.R. pt. 17).

b. Notice and Logical Outgrowth

Beyond arbitrariness review, courts can also play an important role in ensuring that agencies provide sufficient notice to public commenters, even when they bundle. Courts, in other words, can ensure that those who seek to participate in a rulemaking are given sufficient warning about an agency's regulatory proposals.²⁴⁸ Recall OSHA's rulemaking regulating 428 different substances. During litigation, industry groups complained that bundling so many substances into a single rule impeded their ability to raise all their concerns.²⁴⁹ They complained that too many issues were presented with fewer than fifty days to comment on all of them.²⁵⁰ On the facts and statutory background of *AFL-CIO v. OSHA*, the court dismissed this concern.²⁵¹ But one can imagine the adequacy of notice playing a more important part in judicial review, especially as agencies appear to be bundling at higher rates.

A related concern stems from the connection between the proposed rule and the final rule. If the final rule is so different from the proposed one that it is not a "logical outgrowth" of it, then commenters may not have had an adequate opportunity to participate in the rulemaking process – they were not sufficiently on notice of what the agency might do.²⁵² Courts have been using the logical-outgrowth doctrine to police the concern that final rules will be written in ways that could not be anticipated by would-be commenters.²⁵³ The worry is that agencies keep their intended rules under wraps while proposing something only tenuously related to what they plan to impose.²⁵⁴ This doctrine may thus be another tool through which courts police bundling, particularly if agencies tend to increase bundling through the notice-and-comment process.

While the above tools are important to consider in the administrative state, whether they should be adopted requires further empirical work as to regulatory

^{248.} See 5 U.S.C. § 553 (2018) (requiring a "notice" of proposed rulemaking).

^{249.} AFL-CIO v. OSHA, 965 F.2d 962, 969 n.8 (11th Cir. 1992).

^{250.} See id. at 969 & n.8.

²⁵¹. *Id.* at 969 n.8.

^{252.} See Shell Oil Co. v. EPA, 950 F.2d 741, 759 (D.C. Cir. 1991); Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 547 (D.C. Cir. 1983); Sierra Club v. Costle, 657 F.2d 298, 352 (D.C. Cir. 1981).

^{253.} See, e.g., CSX Transp., Inc. v. Surface Transp. Bd., 584 F.3d 1076, 1080 (D.C. Cir. 2009). See generally Jack M. Beermann & Gary Lawson, *Reprocessing* Vermont Yankee, 75 GEO. WASH. L. REV. 856, 899 (2007) (arguing that the logical-outgrowth doctrine has imposed procedural burdens on agencies that far exceed the minimal requirements of 5 U.S.C. § 553).

^{254.} See CSX, 584 F.3d at 1080.

bundling's causes and consequences. One future study might investigate, for example, whether OIRA's line-item veto has in fact resulted in more burdensome regulations as a result of the incentive to add costlier provisions for negotiation purposes. Such a finding could lend support to the conclusion that OIRA should no longer exercise a line-item veto. Other studies might consider whether variations in bundling across agencies systematically explain rates of public comment or the quality of the input offered. If more bundling reduces the amount and character of public participation, then one might decide that bundling should be constrained. If, however, bundling facilitates more diverse participation and higher-quality comments, then it may be salutary. Even if general empirical conclusions are possible, case-by-case assessments may nevertheless also be sensible given the heterogeneity of rulemaking efforts. Even if one could aggregate the effects of regulatory bundling, it nonetheless may be wise to consider the merits of the practice in the context of specific rules or subject areas.

Further work is also needed to assess other possible consequences of regulatory bundling. On the one hand, as noted above, regulatory bundling can reflect a strategic attempt by an agency to obfuscate or otherwise overwhelm the monitors of a particular rulemaking. The associated concern would be that unelected bureaucrats are making policy without democratic accountability or due process values like notice and participation. On the other hand, regulatory bundling may also have more salutary motivations and consequences. For example, it may reflect deliberative compromises between agency actors and members of Congress or the White House.²⁵⁵ Such deliberation may result in more information, creative policy making, and public-regarding results. It may also help facilitate rulemaking when parties with unrepresentative or extreme preferences otherwise attempt to block welfare-enhancing regulation. In this sense, bundling can serve as a kind of commitment device.²⁵⁶ As previously noted, bundled rules could also help to decrease compliance costs by allowing regulated entities to comply more

^{255.} Cf. Mark Seidenfeld, A Civic Republican Justification for the Bureaucratic State, 105 HARV. L. REV. 1511 (1992) (providing a "republican" defense of administrative law as a collaborative, civic participatory enterprise).

^{256.} See generally JON ELSTER, ULYSSES UNBOUND: STUDIES IN RATIONALITY, PRECOMMITMENT, AND CONSTRAINTS **88**-92 (2000) (describing political constitutions as "commitment" devices). During negotiations over the proposed rule, the inability of an agency to commit to a particular deal is a problem that could undo many attempted compromises. For example, an agency might attempt to placate an interest group by promising some favored regulatory revision in the future. Yet the interest group may not trust the agency to follow through: after all, there might be a change in agency personnel, or a shift in priorities due to exogenous events. As a result, the interest group may challenge the immediate rule and thereby delay its implementation for years. In response, the agency may bundle the change into the final rule. This allows the agency credibly to commit to the revision, thus forestalling any adverse action contemplated by the interest group or political actor.

efficiently through one-time technological investments. Bundling can also increase predictability and certainty about an agency's policy choices regarding a particular regulatory problem. For all these reasons, a normative appraisal of regulatory bundling requires further empirical examination of the aggregate consequences of the phenomenon. In the meantime, more case-by-case evaluations of the practice's trade-offs would also be valuable.

CONCLUSION

Administrative agencies can bundle and split their policy-making instruments. This Article has explored how they do so with respect to legislative rules. It has identified the concept of regulatory bundling and proposed a way to operationalize it. The empirical analysis suggests that regulatory bundling is an increasingly common phenomenon. At the same time, agency practices vary widely – some agencies bundle frequently, others rarely. Most agencies, however, appear to bundle more as the rulemaking process unfolds, bundling more issues into final rather than proposed rules. These findings raise significant normative concerns that may be addressed through a suite of tools novel to the administrative state: single-subject rules, line-item vetoes, and innovative forms of judicial review.

More broadly, this Article has sought to open up further lines of inquiry analogous to those explored by social scientists in the legislative context. Many research questions remain: What aspects of agency variation explain differences in bundling behavior? Does regulatory bundling as a whole increase or decrease social welfare? Relatedly, has OIRA's line-item veto resulted in more or less regulatory costs? While administrative law has long allowed agencies flexibility in choosing their policy-making tools, the law's normative concerns of notice and participation demand further scrutiny of how these tools are aggregated and disaggregated in practice.

APPENDIX

A. Basic Summary Statistics, 2000-17

	No. of Obs.	Mean	Std. Dev.	Max.	Min.
Proposed Rules	40823	4.45	3.14	41	0
Final Rules	18898	4.67	3.54	62	0

B. Table of Agency Abbreviations

Abbreviation	Agency Name
AID	Agency for International Development
ATBCB	Architectural and Transportation Barriers Compliance Board
CFPB*	Bureau of Consumer Financial Protection
CFTC*	Commodity Futures Trading Commission
CNSC	Corporation for National and Community Service
CPSC	Consumer Product Safety Commission
DHS	Department of Homeland Security
DOC	Department of Commerce
DOD	Department of Defense
DOE	Department of Energy
DOI	Department of the Interior
DOJ	Department of Justice
DOL	Department of Labor
DOS	Department of State
DOT	Department of Transportation
ED	Department of Education
EEOC	Equal Employment Opportunity Commission
EPA	Environmental Protection Agency
FCA	Farm Credit Administration
FCC*	Federal Communications Commission
FDIC *	Federal Deposit Insurance Corporation
FEC	Federal Election Commission
FERC*	Federal Energy Regulatory Commission
FHFA*	Federal Housing Finance Agency

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FHFB	Federal Housing Finance Board
FLRA	Federal Labor Relations Authority
FMC*	Federal Maritime Commission
FRB*	Federal Reserve System, Board of Governors
FRTIB	Federal Retirement Thrift Investment Board
FTC	Federal Trade Commission
GSA	General Services Administration
HHS	Department of Health and Human Services
HUD	Department of Housing and Urban Development
ITC	United States International Trade Commission
LSC	Legal Services Corporation
MSPB	Merit Systems Protection Board
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration
NCUA	National Credit Union Administration
NFAH	National Foundation on the Arts and the Humanities
NIGC	National Indian Gaming Commission
NLRB	National Labor Relations Board
NRC*	Nuclear Regulatory Commission
NSF	National Science Foundation
NTSB	National Transportation Safety Board
OCC*	Office of the Comptroller of the Currency
OGE	Office of Government Ethics
OMB	Office of Management and Budget
OPM	Office of Personnel Management
PBGC	Pension Benefit Guaranty Corporation
PRC*	Postal Rate Commission
RRB	Railroad Retirement Board
SBA	Small Business Administration
SEC*	Securities and Exchange Commission
SSA	Social Security Administration
STB	Surface Transportation Board
TRE	Department of Treasury
TVA	Tennessee Valley Authority

USDA	Department of Agriculture
USPS	United States Postal Service
VA	Department of Veterans Affairs

Note. An asterisk (*) denotes an "independent" agency, as classified in the Paperwork Reduction Act, 44 U.S.C. § 3502(5) (2018). "Other" agencies include those agencies with names reported in a nonstandard fashion. These agencies often engaged in little rulemaking.

C. Data Preparation

The Government Publishing Office (GPO) makes XML files of the Federal Register available between the year 2000 and the present.²⁵⁷ We downloaded those files and, initially, captured all entries in the "Proposed Rules" and "Rules and Regulations" sections.²⁵⁸ Not all entries in those sections, however, are proposed or final legislative rules. For instance, the Proposed Rules section also contains petitions for rulemakings.²⁵⁹ The Rules and Regulations section also includes "policy statements and interpretations of rules."²⁶⁰ We thus had to screen out entries that did not correspond to legislative rules.

The analytic distinction between legislative and nonlegislative rules, however, is notoriously "hazy."²⁶¹ Generally speaking, legislative rules are those rules that are legally binding on the agency, courts, and the public.²⁶² They are required to go through notice-and-comment.²⁶³ Nonlegislative rules, by contrast,

259. Id.

260. Id.

^{257.} Bulk Data, OFF. FED. REG. (Dec. 29, 2018), https://www.federalregister.gov/reader-aids /developer-resources/bulk-data [https://perma.cc/5Q8D-2M8F].

^{258.} According to the National Archives, each Federal Register issue is organized into four categories: (1) "Presidential Documents, including Executive orders and proclamations"; (2) "Rules and Regulations, including policy statements and interpretations of rules"; (3) "Proposed Rules, including petitions for rulemaking and other advance proposals"; and (4) "Notices, including scheduled hearings and meetings open to the public, grant applications, and administrative orders." *See About the Federal Register*, NAT'L ARCHIVES & RECORDS ADMIN., https://www.archives.gov/federal-register/the-federal-register/about.html [https://perma.cc/XAB3-3L53].

^{261.} See Am. Hosp. Ass'n v. Bowen, 834 F.2d 1037, 1045 (D.C. Cir. 1987) (describing the "spectrum" between interpretive and legislative rules as a "hazy continuum"); Chisholm v. FCC, 538 F.2d 349, 393 (D.C. Cir. 1976).

^{262.} See David L. Franklin, Legislative Rules, Nonlegislative Rules, and the Perils of the Short Cut, 120 YALE L.J. 276, 278 (2010).

^{263.} See Robert A. Anthony, "Interpretive" Rules, "Legislative" Rules and "Spurious" Rules: Lifting the Smog, 8 ADMIN. L.J. AM. U. 1, 2-3 (1994).

merely clarify rather than create new obligations; they are exempt from noticeand-comment.²⁶⁴ Sorting between these two categories is difficult in practice, as evidenced by the many muddled tests used by lower courts.²⁶⁵ Knowing that individually scrutinizing thousands of rules would be unworkable in practice, we searched for a simple sorting mechanism that could be operationalized. We observed that the D.C. Circuit looks to whether an agency has published a rule in the Code of Federal Regulations (CFR) as a "snippet" of evidence that the rule is legislative in character.²⁶⁶

While acknowledging that CFR publication is just one factor of many,²⁶⁷ we adopted a two-step procedure using the simple criterion. First, under the Office of the Federal Register's Document Drafting Handbook, proposed and final rules that modify the CFR must contain "words of issuance."²⁶⁸ In the case of proposed rules, these words represent an "expression that connects the preamble to the regulatory text and the tie between the proposed rule and the CFR units you propose to change."²⁶⁹ This is a helpful textual cue, as most nonlegislative actions do not affect the CFR and therefore would not contain words of issuance. By contrast, virtually all legislative rules would affect the CFR and therefore would contain words of issuance.

The words of issuance, the Handbook continues, are "always in the present tense and use the word 'propose' or 'proposes."²⁷⁰ The Handbook also advises that other relevant verbs to include in the words of issuance are "amend," "add," "revise," and "remove." Examples include: "For the reasons discussed in the preamble, the Nuclear Regulatory Commission proposes to amend 10 CFR part 430

270. Id.

^{264.} Nonlegislative rules are often also referred to as "guidance documents." See, e.g., Nina A. Mendelson, Regulatory Beneficiaries and Informal Agency Policymaking, 92 CORNELL L. REV. 397, 399 (2007) ("Guidance documents can closely resemble legislative rules, leading some to call them 'nonlegislative rules.").

^{265.} See Franklin, supra note 262, at 286-89 (summarizing various approaches and observing how "difficult" they often are to apply in practice).

^{266.} See Health Ins. Ass'n of Am., Inc. v. Shalala, 23 F.3d 412, 423 (D.C. Cir. 1994) (stating that CFR publication is no more than "a snippet of evidence of agency intent").

^{267.} The D.C. Circuit has identified various objective indicia of a legislative rule: (1) CFR publication; (2) an adequate legislative basis for the agency action without the rule; (3) explicit invocation of general legislative authority; or (4) an effective amendment to a previous legislative rule. *See* Am. Mining Cong. v. Mine Safety & Health Admin., 995 F.2d 1106, 1112 (D.C. Cir. 1993).

^{268.} Office of the Fed. Register, Document Drafting Handbook: August 2018 Edition, NAT'L ARCHIVES & RECORDS ADMIN. 2-2 (Aug. 31, 2018), https://www.archives.gov/files/federal-register /write/handbook/ddh.pdf [https://perma.cc/RN9Z-7HMS].

²⁶⁹. *Id*. at 2-16.

as follows" and "For the reasons discussed in the preamble, the Federal Communications Commission proposes to revise 47 CFR part 430 to read as follows."²⁷¹ We detect these words of issuances using a regular expression that searches for some variant of "propose" near one of those verbs, followed by a reference to the CFR or Code of Federal Regulations. As a first screen, we then remove those entries in the Proposed Rules section of the Federal Register that do not contain words of issuance. We apply the same basic methodology drawn from the Handbook to the Rules and Regulations section to attempt to isolate final rules. In this manner, the words-of-issuance screen likely removed most entries not related to legislative rulemakings. That said, some nonlegislative rules like rules of agency procedure can still affect the CFR. We therefore required a secondary screen to remove such procedural rules. This screen examined the rulemaking titles to remove rules with titles that refer to "procedure" or otherwise contain the term, "procedural."

All in all, this two-step procedure removes a substantial number of entries in the Federal Register. The original, unscreened dataset contained roughly 43,500 entries in the Proposed Rule section and 68,000 entries in the Rules and Regulations section. The words of issuance screen removed over 24,000 entries from the Proposed Rule section and about 25,500 entries from the Rules and Regulations section. The procedural rule screen, in turn, removed a further 400 entries from the Proposed Rule section and about 1,700 entries from the Rules and Regulation section. As a check on these screening procedures, we then tasked a research assistant with reviewing a random sample of entries (n = 130). We asked her to assess independently whether each entry represented a legislative rule. According to the research assistant's coding, ninety-six percent of the rules in the sample were legislative in nature.²⁷² Our own review suggests that the proportion of legislative rules may be slightly higher due to reasonable disagreements about particular cases (such as those involving technical amendments). This exercise supports the basic efficacy of our screening protocol.

D. Redundancy-Adjusted Measure

Under the Office of Federal Register's Thesaurus of Indexing Terms, many of the subjects exist in a hierarchical relationship to other subjects, with more precise terms falling under more general terms.²⁷³ For instance, "air taxis" is a

^{271.} Id. at 2-17.

^{272.} The ninety-five-percent confidence interval on this sample proportion is (.92, .99).

^{273.} See Office of the Fed. Register, Federal Register Thesaurus of Indexing Terms, NAT'L ARCHIVES & RECORDS ADMIN. (Dec. 29, 2018), https://www.archives.gov/files/federal-register/cfr/thesaurus.pdf [https://perma.cc/TTK5-DGJY].

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specific example of "air transportation," and both terms exist as permissible entries in the thesaurus that agencies might list in their rules. When agencies list both terms, the number of *listed* subjects may be greater than the number of *true* subjects in a meaningful way. Some of the listed subjects, that is, are redundant: adding a broader term to a more specific term does not increase the number of subjects addressed in a rulemaking effort. To account for this possibility, we wish to develop a redundancy-adjusted measure of the number of subjects.

There are various ways that one might address this problem. A standard technique in natural-language processing involves reducing the dimensionality of the word-space by using, for instance, singular value decomposition or topic modelling. Likewise, scholars often attempt to reduce a large set of variables to a smaller set of factors using principal components analysis or similar techniques. Doing so facilitates subsequent statistical analysis and may make the data more interpretable. Finally, in financial analysis, many measures of portfolio diversification exist, all of which provide some sense of how much "overlap" there is in a portfolio, a question not far from the present interest.

All of these techniques have downsides. For example, generally one must select the number of factors or topics to model when reducing the dimensionality of the data. Algorithms and rules of thumb exist to help select the number of factors, but it is impossible to escape a degree of arbitrariness. More importantly, introducing a reduced-dimensionality representation of the data can in fact impede intuition and interpretation – it is often not clear to what the various factors or topics produced by these techniques refer. Nor is it obvious how to produce from these reduced-dimensionality representations an intuitive sense of how "many" subjects to which a given rule relates. Most importantly, these techniques do not take advantage of the structure known to exist in the data: the thesaurus tells us about the relationship between more specific and more general terms.

To adjust the number of subjects, we thus adopt a simple algorithm that exploits the fact that the thesaurus informs us of the semantic structure of the terms. Consider the thesaurus entry for "air transportation"²⁷⁴:

Air transportation See also Air carriers Air rates and fares Air taxis Air traffic control Aircraft Airmen

274. Id. at 6.

Airports Airspace Aviation safety Charter flights Military air transportation Navigation (air)

The thesaurus uses "see also" to "[r]eference [the] user to narrower and related terms."²⁷⁵ This structure tells us that "air taxis" is a more specific term under the heading of "air transportation." Using this structure, we first convert the thesaurus into a database in which each listed "general" term is associated with any relevant more "specific" term. Second, we examine each listed subject for each rule, probe whether it is a general term, and if so, determine whether any of the specific terms listed by the agency appear as *separate* entries for that rule. If that is the case, then we depreciate the general term from the count of the number of subjects for that rule. If not, we retain the general term, as no more specific substitute exists in the list of subjects for that rule. To take an example, if the rule listed "air taxis" and "air transportation," our simple algorithm would produce a count of one, as we effectively remove "air transportation" from the list of subjects. At the same time, if it listed only "air taxis" or only "air transportation," the count would likewise be one.

It turns out that agencies commonly list both more general and more specific terms, but that it does not affect the qualitative features of the data. For instance, nearly sixty percent (roughly 66,500) of the final or proposed rules in the dataset require the depreciation of at least one general term. However, the adjusted and unadjusted measures correlated strongly, r = 0.96. As robustness exercises, we reestimated the empirical analyses presented in the body of this Article. Qualitatively, the results tend to remain stable under the adjusted measure.²⁷⁶

E. Alternative Measures

In the interest of transparency and to give a sense of how other possible measures of bundling map on to this inquiry, consider the following replications of Figures 1 and 4 and Table 1 from the Article.

^{275.} Office of the Fed. Register, History of the Thesaurus of Indexing Terms and the CFR Index (unpublished manuscript) (on file with authors).

^{276.} See Nou & Stiglitz, supra note 176. The one result that does seem to change under this adjusted measure relates to bundling during the midnight period: we find somewhat less bundling in the midnight period with the adjusted measure.

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The top panel of Figure A1 plots the trends over time in bundling as measured with the (log) number of words in the rulemaking document (i.e., including the rule or proposed rules, as well as any preamble material). There, one sees that the trends in the (log) number of words qualitatively tracks that presented in Figure 1: broadly, an increase over time in bundling activity. Moreover, one likewise sees the dip in bundling in 2017 with this measure. The bottom panel of the Figure presents the corresponding results when bundling is measured with the (log) number of sections referred to in the rule.²⁷⁷ The patterns for this measure seem roughly to follow those reported in the Article, though the trend is fainter and noisier. One continues to see, though, the dip in bundling in 2017.

²⁷⁷. We add one to the number of sections so as to avoid logging a zero; we record zero sections for about ten percent of the rulemaking entries in the dataset.

FIGURE A1. REPLICATION OF FIGURE 1

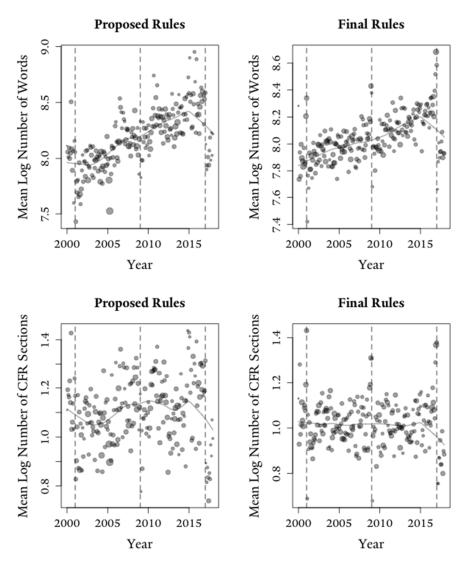


Table A1 replicates Table 1 from the Article using the alternative measures. While some of the results are similar, there are also some meaningful differences – particularly regarding executive versus independent agencies – that are worthy of further exploration.

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REPLICATION OF TABLE 1: POLITICAL ENVIRONMENT AND BUNDLING BEHAVIOR (ALTERNATIVE MEASURES)

		ľ	og Numl	Log Number Words	Log]	Number	Log Number CFR Sections
	Political Feature	No	Yes	Difference	No	Yes	Difference
	Executive Agency	8.22	8.03	-0.19**	1.16	1.01	-0.15 ^{* *}
	Election Year	8.02	8.o7	0.04**	1.00	1.04	0.04**
Final Rules	Presidential Election Year	8.03	8.09	0.06**	1.01	1.05	0.04 ^{**}
	Republican President	8.12	7.97	-0.15**	1.03	1.01	-0.02^{\star}
	Divided Government	7.99	8.08	0.09**	1.00	1.03	0.03**
	Executive Agency	8.05	8.19	0.14**	1.24	1.09	-0.15 ^{**}
	Election Year	8.15	8.21	0.06**	1.07	1.14	0.07**
Proposed Rules	Presidential Election Year	8.17	8.20	0.02	1.09	1.13	0.04*
	Republican President	8.33	8.03	-0.30**	1.14	1.07	-0.08**
	Divided Government	8.09	8.23	0.14 ^{**}	1.07	1.13	0.06**
Note. ** Denotes a p-val	Note. ** Denotes a p-value of less than 0.01; * denotes a p-value of less than 0.05.	lue of less	than 0.05.				

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Finally, Figure A2 replicates Figure 4 from the main body of the text, again now using the alternative measures. There we see that, as with the preferred measure, these measures modestly exhibit right-skew, even after log transformations. The bottom panel, which displays the pattern for the number of sections, also suggests the coarseness of this measure. That coarseness may explain why it is challenging to replicate the main results using this particular alternative measure.

FIGURE A2. REPLICATION OF FIGURE 4

