

Public Pressure Campaigns and Bureaucratic Policymaking

By

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Abstract

This dissertation is about public pressure campaigns that target U.S. federal agency rulemaking, a technocratic policy process in which participation is usually limited to a few policy insiders. Occasionally, however, public pressure campaigns help make agency rules some of the most hotly contested policies of our time. I examine who organizes public pressure campaigns and why, whether these campaigns affect congressional oversight, and whether they affect policy. Answering these questions informs our understanding of bureaucratic politics as well as interest group lobbying, organizing, and mobilizing tactics. Most comments that federal agencies receive on their draft policies come from ordinary people who were inspired by a public pressure campaign. Yet, leading theories of bureaucratic policymaking neither explain nor account for these fitful bursts of civic engagement. This dissertation develops and tests theories about the roles of individuals, organizations, coalitions, and social movements in bureaucratic policymaking. I show that pressure campaigns build movements, attract policymakers' attention, and systematically counter corporate power by generating information about public demands and the political environment in which policy is made. At the same time, I find that the impact of pressure campaigns is uneven and contingent on the capacity of interest groups to mobilize and of policymakers to process political information. I make four main contributions:

First, I build on scholarship on social movements, interest group behavior, and lobbying to identify three reasons for lobbying organizations to mobilize ordinary people. Each logic suggests a different observable pattern of public engagement, and I analyze millions of public comments on thousands of agency rules to develop the first systematic measures of public engagement in bureaucratic policymaking. I find that most public comments are mobilized by public interest organizations, not by narrow private interests or astroturf campaigns. However, because campaigns require significant organizational capacity and resources, public comment campaigns are dominated by a few large policy advocacy organizations.

Second, building on theories of political oversight, I theorize that mass engagement in bureaucratic policymaking may alert elected officials to political opportunities and risks, thus affecting oversight behaviors. I assess this argument by analyzing correspondence between members of Congress and agency officials on proposed rules with and without mass engagement. I find that public pressure campaigns are correlated with congressional attention and that coalitions with more congressional support are more likely to achieve their policy goals.

Third, I integrate intuitions about outside lobbying and oversight into a broader theory of how public pressure campaigns may affect policy by producing potentially influential political information. I suggest four causal mechanisms by which lobbying may influence policymakers and expand leading formal models of interest group influence in bureaucratic policymaking to account for

political information. I then test these models using a mix of hand-coding and computational text analysis methods. I find evidence of indirect effects but little evidence of direct effects of pressure campaigns on policy, especially for public interest campaigns. However, decisions to organize depend on anticipated lobbying success. Private interest groups only lobby when they expect to influence policy, whereas public interest groups also organize campaigns to build power. Thus, my results may underestimate the impact of public interest campaigns.

Fourth, I contribute to a growing literature on the effects of social movements through a case study of the environmental justice movement. I show that pressure campaigns are more than a lobbying tactic; they are also an institutionalized form of contentious politics over the distribution of governmental power. I examine the discursive effects of environmental justice claims both qualitatively and quantitatively, including the role of Native American activists and environmental groups in shaping federal policy. I find that agencies frequently ignore environmental justice concerns but are more likely to add language addressing environmental justice in their final rules when public comments and pressure campaigns raise environmental justice concerns.

I conclude with implications for theories of bureaucratic policymaking and future research and proposed reforms for public participation in policymaking.

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List of Key Terms

- A **coalition** is a group of people and organizations pursuing the same aims in the same policy fight. Because coordination is difficult to measure, my empirical definition includes individuals and organizations who advocate for the same policy outcomes regardless of overt coordination. A coalition may include organizations lobbying for the same policy outcome for different reasons (e.g., “bootleggers and baptists” coalitions).
- **Going public** describes the choice to pursue an “outside” strategy to influence policy outcomes. It aims to expand the scope of conflict and involve more actors than would be involved when lobbying organizations only employ an “inside” lobbying strategy involving professional policy influencers and focused primarily on the policymakers.
- **Grassroots** and **astroturf** campaigns are both forms of outside lobbying. Grassroots campaigns aim to mobilize individuals based on some pre-existing interest or belief. In contrast, astroturf campaigns aim to create a deceptive appearance of more public support. The people organizing an astroturf campaign are only doing so because they are being paid. Many of the individuals mobilized are either deceived (e.g., intentionally misled about the policy or its likely effects) or financially incentivized to participate. In the extreme, astroturf campaigns may use the names of fake or non-consenting individuals. In contrast, a more grassroots campaign may also require funding, but groups would choose to use resources for such a campaign even without the quid pro quo. While grassroots campaigns may involve simplification, spin, and even mild deception, such strategies are not decisive for the campaign’s ability to mobilize.
- **Lobbying influence** implies a causal effect between an effort to influence policy and a policy outcome.
- **Lobbying success** describes a situation where a group that sought to influence policy got the outcome they sought, without implying a causal relation-

ship between their effort and the policy outcome.

- A **membership organization** is a type of organization formed to serve the interests of a defined membership. Membership organizations may act in the name of their members' narrow material interests or broader visions of the public interest. Some membership organizations are more directly governed by their members than others.
- **Mobilizing groups/organizations** recruit people to take an action (e.g., to sign a petition or submit a public comment).
- An **organization** is usually incorporated as a business, government, or non-profit. Public comments *from* organizations represent the position of the organization as an incorporated entity. I only consider a comment to be on behalf of an organization if the comment text claims to represent the organization. An employee using letterhead is insufficient. Letters from elected officials are only considered to represent their governmental organization (their state, committee, etc.) if they claim to do so *and* are in a position to do so (e.g., a governor or committee chair). Otherwise, I consider elected officials to represent themselves as politicians in a particular political office, not the whole governmental organization.
- A **public interest group** is a type of organization that *primarily* advocates for some vision of the public good, not the private material interest of its owners or members. Policy conflicts may involve competing visions of the public interest and thus multiple public interest group coalitions.
- A **public pressure campaign** is an effort to influence policy by mobilizing a segment of the public to pay attention to the policy process and express their opinions to decisionmakers. It can be an astroturf or grassroots campaign on behalf of public or private interests. Empirically, I focus on public pressure campaigns in public comment periods, often called a “mass commenting campaign.” Comments mobilized by such campaigns are often form letters called “mass comments.” For analytic purposes, I define a mass comment in [2.3.2](#) as any comment sharing a substantial amount of text with 99 other comments or uploaded in a batch of 100 or more by the same organization.
- **Responsiveness** is observable attention that government officials pay to public input. This can be either substantive policy influence or discursive influence (similar to what Balla et al. (2020) calls “procedural responsiveness”).
- **Technical information** and **political information** are two types of information that may be relevant to policy decisions. This distinction comes from

Nelson and Yackee (2012) and is developed further in each chapter of this dissertation. Technical information includes scientific or legal facts. It may influence decisions if policymakers update their beliefs about the consequences of their policy—for example, by changing an economic cost-benefit analysis or by revealing an unknown legal precedent or statutory requirement. In contrast, political information is about the political context in which policy is made. It may influence decisions if policymakers update their beliefs about which members of Congress support their proposal, the prevalence of a belief in the broader public, or the number of people an interest group represents. Most kinds of political information inform second-order beliefs—beliefs about what others think (Mildenberger and Tingley, 2017). A threat of an oversight hearing, a national opinion poll, and the media coverage of a protest are all types of political information that inform policymakers about the prevalence and intensity of political opinions and, thus, the political consequences of their policy decisions.

Citations to Primary Documents

I cite public records, including policy documents and public comments, using government-issued identification numbers. Citations to documents published in the *Federal Register* include an agency acronym, the year the document was published, and a document number (usually five digits, e.g., “CFPB-2020-14935”). If citing a specific paragraph, the citation will appear as “CFPB-2020-14935/p-134.” Federal Register documents can be accessed by adding “federalregister.gov/d/” before the id number, for example, “federalregister.gov/d/2020-14935/p-134”. Citations to documents posted to regulations.gov begin with a rulemaking docket number, including an agency acronym and the year the rulemaking process officially began, followed by a unique document number (e.g., “IRS-2016-0015-0125”). Regulations.gov documents can be accessed by adding “regulations.gov/document/” before the document id number, for example, “regulations.gov/document/IRS-2016-0015-0125”).

— 1 —

Introduction: Why Study Public Participation in Bureaucratic Policymaking

This dissertation is about public pressure campaigns that target U.S. federal agency rulemaking, a technocratic policy process in which participation is usually limited to a few policy insiders. Occasionally, however, public pressure campaigns help make agency rules some of the most hotly contested policies of our time. I examine who organizes public pressure campaigns and why, whether these campaigns affect congressional oversight, and whether they affect policy. Answering these questions informs our understanding of bureaucratic politics as well as interest group lobbying, organizing, and mobilizing tactics. At a time when the vast majority of policy is made in bureaucracies, the relationship between citizens and government depends on bureaucratic policymaking. If ordinary people have a voice in bureaucratic policymaking, I argue, it is through public pressure campaigns. The capacities required to influence national-level policy are those of organized groups, not individuals acting alone. Thus, understanding the nature and effects of these campaigns is key to understanding modern democracy.

With the rise of the administrative state, U.S. federal agencies have become a

major site of policymaking and political conflict. By some estimates, upward of 90 percent of legally binding U.S. federal policy is now written by agencies (Warren, 2010). Agency rules are revised much more frequently than statutory law (Wagner et al., 2017). In the years or decades between legislative enactments, federal agencies make legally binding rules that interpret and reinterpret old statutes to address emerging issues and priorities. Since Kerwin and Furlong (1992) observed that “rulemaking has become the most common and instrumental form of lawmaking” (p. 114), this observation has only become more true.

To illustrate the importance of bureaucratic policymaking, one could pick from thousands of examples of how our food, water, medicine, prisons, energy system, and financial system are governed through agency rulemaking. Congress authorizes billions of dollars in grants, subsidies, and leases for public lands, but who gets these benefits depends on agency policy. The effects of the Dodd-Frank Wall Street Reform and Consumer Protection Act were largely unknown until the specific regulations were written, and U.S. policy on banking continues to change as these rules are revised. In the decades since the last major environmental legislation, agencies have written thousands of pages of new environmental regulations and thousands more, changing tack under each new administration. For example, most federal policies addressing climate change are agency rules “implementing” the 1963 Clean Air Act that was last amended in 1990.

Agency rules significantly shape lives and fortunes. For example, in 2006, citing the authority of statutes last amended in the 1950s, the Justice Department’s Bureau of Prisons proposed a rule restricting eligibility for parole. In 2016, the Bureau withdrew this rule and announced it would require fewer contracts with prison companies, precipitating a 50 percent loss of industry stock value. Six months later, a new administration announced these policies would again be reversed, leading to a

130 percent increase in industry stock value. Agency rulemaking clearly matters.

Less clear, however, is how the new centrality of agency rulemaking fits with democracy. In addition to the bureaucracy's complex relationships with the president, Congress, and the industries they support and regulate, agencies have complex and poorly understood relationships with the public and advocacy groups. Relationships with constituent groups may even provide agency officials with a degree of autonomy from their political principals in Congress (Carpenter, 2001). These complex relationships make bureaucratic policymaking difficult to study. Moreover, different theories of democracy emphasize different—and often conflicting—roles for bureaucracy.

Bureaucratic organization is a core feature of nearly all ambitious human projects, including modern democracies. Bureaucracy—and bureaucratic policymaking in particular—helps address two major challenges faced by large democracies. First, large democracies are susceptible to the fleeting passions of the mass public. To combat this, many decisions are left to unelected experts who, ideally, exercise judgment loosely guided by the public. Additionally, some large democracies constrain legislative policymaking through supermajoritarian or bicameral legislatures, a separation of powers, or judicial review. The result is that many policy problems are (either *de jure* or *de facto*) left to the bureaucracy. Second, not everyone can vote on every policy decision. We thus delegate power to elected representatives (who then delegate it to unelected deputies in the bureaucracy), solicit input from those most affected or moved by a public decision, and create temporary mini-publics.¹ Most policy in large democracies is thus made by bureaucrats, supposedly

¹As imagined by Dahl (1989), mini-publics are deliberative and representative bodies of individuals selected at random. Besides juries, however, randomly selected deliberative bodies are rare. Instead, citizens more often engage in government decisions when given opportunities to opt-in, such as hearings, petitions, and public comment periods. These mechanisms of civic engagement generate a different, more contentious flavor of public input than the discourse imagined

guided indirectly through elected representatives and directly by limited forms of public input.

While bureaucracies address both of these challenges—they institutionalize expert counterweights to mass politics and make larger volumes of policy than any plebiscite could—they do not resolve them. Both challenges are especially acute in bureaucratic policymaking. Using bureaucracy to address challenges as diverse as resisting populism, enabling representative democracy, and encouraging direct participation in policymaking creates contradictions in the tasks assigned to government officials (Wilson, 1989). Bureaucracies are run by experts who are often embedded in professional networks and epistemic communities that value very specific kinds of expertise (Carpenter, 2001, 2014). At the same time, officials are deputized by, and are thus accountable to, elected officials. Moreover, bureaucratic policymaking procedures often aim to create opportunities for direct public input, such as public comment periods on draft policies. The result is the apogee of the famous “Bureaucracy Problem” (Wilson, 1967): bureaucracies are expected to optimize multiple conflicting goals, each goal involving different types of relevant information, different constituents, and, often, attracting the attention of different scholars. It is far from clear how bureaucratic decisions are to balance expertise, accountability to elected officials, and responsiveness to public input in policymaking.

Participatory processes like public comment periods, where government agencies must solicit public input on draft policies, bring the tensions of bureaucratic policymaking in a democracy into sharp focus. Comment periods are said to provide political oversight opportunities (Balla, 1998; McCubbins and Schwartz, 1984), democratic legitimacy (Croley, 2003; Rosenbloom, 2003), and new forms of expertise and technical information (Yackee, 2006; Nelson and Yackee, 2012; Wagner, 2010).

by scholars who focus on deliberation.

Activists, politicians, and the press often discuss comment periods as if they are an inherently majoritarian or pluralist institution. After one particularly controversial policy battle, reporters in the *New York Times* wrote that “[t]he purpose of the public comment period was to objectively gauge Americans’ sentiment before changing a policy that could profoundly affect their lives” (Lipton and Davenport, 2015). It is clear that rulemaking profoundly affects lives. The extent to which public comment periods gauge public sentiment is much less clear. Of the thousands of policies that government institutions make each year, direct public input tends to be limited to only the most contentious policy debates. Even elected officials who are in positions to oversee bureaucratic policymaking infrequently play any role in bureaucratic policymaking.

While most federal agency policies receive little public attention, activists occasionally expand the scope of conflict by targeting agency policymaking with letter-writing campaigns, petitions, protests, and by mobilizing people to attend hearings, all classic examples of “civic engagement” (Verba and Nie, 1987). As I show in Chapter 2, most comments submitted to regulations.gov are form letters, more akin to petition signatures than sophisticated lobbying. Indeed, approximately 80 percent of public comments on federal agency rules were mobilized by just 100 advocacy organizations. Yet civic engagement remains poorly understood in the context of bureaucratic policymaking. While recent scholarship on agency policymaking has shed light on the sophisticated lobbying by businesses and political insiders (Yackee and Yackee, 2006), we know surprisingly little about the vast majority of public comments, which are submitted by ordinary people as part of public pressure campaigns.

The occasional bursts of civic engagement in bureaucratic policymaking that public pressure campaigns generate raise practical and theoretical questions for the

practice of democracy. These practical and theoretical questions hinge on unanswered empirical questions: Who is behind these campaigns? Do they affect policy? If so, by what mechanisms?

Existing research finds that commenters believe their comments matter (Yackee, 2015*b*) and that the number of public comments varies across agencies and policy processes (Moore, 2017). In particular, scholars have found that mass comment campaigns drive significant participation of the lay public in rulemaking at the Environmental Protection Agency (Potter, 2017*a*; Balla et al., 2018). Cuéllar (2005), examining public input in three rulemaking processes, finds that members of the lay public, not professional policy influencers, made up the majority of commenters, demonstrating “demand among the mass public for a seat at the table in the regulatory process.” Yet, the relationship between the scale of public engagement and policy change remains untested. Indeed, we have much to understand about the causes and effects of public pressure campaigns before we are in a position to ask if they are a mechanism for groups to influence policy. Most critically, we must understand who mobilizes public pressure campaigns and why.

1.1 What We Know About Bureaucratic Policymaking

Departing from the conventional wisdom that government was necessarily political, an influential movement in public administration in the early twentieth century promoted the idea that challenges of governance could be solved rationally (Svara, 1998)—what Stone (2002) calls the “rationality project.” Administration was to be a science with objective methods to design and carry out administrative tasks. The principles of good administration were discoverable, generalizable, and neutral (Long, 1949; Caiden, 1984).

In the mid-twentieth century, a wave of scholarship pushed back, arguing that “the lifeblood of administration is power” and that bureaucratic decision-making is saturated with “forces on whose support, acquiescence, or temporary impotence the power to act depends” (Long, 1949, pg. 1). Rather than merely subordinate cogs in a governmental hierarchy, bureaucrats’ decisions are functions of a multitude of relationships with the other political institutions in which they are embedded. “Administrative organizations, however much they may appear to be the creations of art, are institutions produced in history and woven in the web of social relationships that give them life” (Long, 1949, pg. 6). Bureaucracies are inescapably part of the politics of their time. The work of bringing politics back into the study of bureaucracy is an active program (Yackee, 2019).

Long suggested that Congress, individual members of Congress, committees, courts, other agencies, presidential advisors, and the president all affect agency policymaking, but the effect of these more official demands “varies with the political strength of the group demand embodied in it” (Long, 1949, pg. 7). That is, the effect of official demands is conditional on the power of the coalition supporting them. In the language of principal-agent theory, the effect of principals on agencies is mediated by their level of political support. Likewise, we might say that the effect of interest groups that attempt to influence bureaucratic policymaking is mediated by their access to formal levers of power.

Leading models of influence in bureaucratic policymaking focus on two key political forces: sophisticated interest group lobbying and political constraints from Congress and courts. As bureaucrats learn about policy problems and balance interest-group demands, public comment processes allow lobbying organizations to provide useful technical information and inform decision-makers of their preferences on draft policies. Agencies may then update policy positions within constraints

imposed by their political principals.

The remainder of this subsection offers a brief review of the special institutional context of bureaucratic policymaking, then scholarship on interest group lobbying and principal-agent dynamics, and finally the limited scholarship on public pressure campaigns and the bureaucracy, most of which comes from administrative law scholars.

1.1.1 Accountability to the President, Congress, and the Courts

Presidents, Congress, and courts all affect agency policymaking (Moe, 1985). Yet, agencies vary in their independence from presidential and congressional agendas (Carpenter, 2001; Selin, 2015). As a result, agencies vary in their responsiveness to Congress (Clinton, Lewis and Selin, 2014; Farhang and Yaver, 2015), the courts (Lauderdale and Clark, 2012; Carrigan and Mills, 2019), the president (Carrigan, Kasdin and Xie, 2021), and public opinion (Dunleavy, 1991).

Principal-agent models, where political actors use various rewards and sanctions to affect agency behavior, offer one way to think about accountability. Stemming from the image of a hierarchy of governmental authority, models of principal-agent dynamics focus on how institutional design and incentives can increase political control over administrative institutions. Specifically, these models focus on how Congress and the president delegate authority and then attempt to constrain bureaucrats' exercise of those authorities. For example, models of delegation suggest that rational principals will delegate to agents with similar goals, repeated interactions, and when they are able to overcome commitment and information problems (Bendor, Glazer and Hammond, 2001). Mechanisms of congressional control over the bureaucracy include congressional oversight and administrative procedures that require agencies to be transparent and give interest groups opportunities to raise

concerns (McCubbins, Noll and Weingast, 1987).

While early principal-agent scholarship focused on either Congress or the president (Wildavsky, 1964; Niskanen, 1975), newer models of bureaucratic policymaking recognize that agency actions are simultaneously constrained by multiple other branches of government (Moe, 1985; Potter, 2017b). Models of political oversight also now appreciate the role of interest groups in shaping interactions among branches (McCubbins and Schwartz, 1984; McCubbins, Noll and Weingast, 1987). I take up the role of interest groups in congressional oversight of bureaucratic policymaking in Section 3.2.5.

1.1.1.1 The President

Agency rulemaking is where the rubber hits the road for both legislation and presidential agendas [Huber2002; Devins and Lewis (2008); Yackee and Yackee (2009b); Kerwin and Furlong (2018)]. While Congress intentionally designs agencies with varying levels of presidential control (Lewis and Selin, 2014; Selin, 2015), presidential agendas are one of the main drivers of bureaucratic policymaking (Clinton, Lewis and Selin, 2014). Indeed, bureaucratic policymaking varies even more from president to president than the use of direct mechanisms of control would suggest (Yackee and Yackee, 2009b). As I show in Section 2.4, different presidents inspire different politics in bureaucratic policymaking.

Presidents—working through the White House Office of Information and Regulatory Affairs (OIRA)—review agency policies and often direct agencies to modify proposed policies (Haeder and Yackee, 2018). While scholarly attention to OIRA has focused on cost-benefit analysis, Shapiro (2005) finds that the president’s political priorities tend to trump cost-benefit analysis. OIRA review of agency policies is thus another way that political forces, including interest groups, affect agency rules

(Haeder and Yackee, 2015). To the extent that public pressure campaigns draw the attention of the White House to agency rulemaking, they may affect OIRA review as well. While I do not explicitly address the role of OIRA in rulemaking in this dissertation, my argument that pressure campaigns expand the scope of conflict includes the involvement of additional actors, including the president and OIRA.

1.1.1.2 Congress

After the president's policy agenda, partisan control of Congress is one of the most important political constraints (Yackee and Yackee, 2009*a*), especially when Congress is making policy (West and Raso, 2013) or when agencies fear that a hostile Congress will override their policy decisions (Potter, 2017*b*). Under a divided government, Congress tends to empower agencies that are more independent from the president (Epstein and O'Halloran, 1999). We may think of agency policymaking as consistently affected by presidential agendas, with Congress providing shocks and constraints.

The priorities and attention of Congress and the president affect the volume of rules produced by each agency (Potter and Shipan, 2019). For example, agencies adjust the number of rules they produce in response to partisan control. Divided government leads to agencies issuing fewer rules and fewer substantively significant rules than they do during periods of unified government (Yackee and Yackee, 2009*a*). One reason we see fewer rules under divided government is that agencies strategically time their policy processes to avoid hostile majorities in Congress and the Court (Potter, 2017*a*).

While Congress is often modeled as a unitary actor, either enabling or constraining presidential agendas, individual members of Congress also engage the bureaucracy independently (Lowande, 2017). For example, legislators engage in bureau-

cratic policymaking when they are unable to advance their priorities through legislation due to partisan pressures and chamber control (Ritchie, 2017). Congressional attention to the bureaucracy is also driven by the constituents they represent (Lowande, Ritchie and Lauterbach, 2018; Snyder et al., 2020), their campaign donors (Powell, Judge-Lord and Grimmer, 2020), and the capacity of their office—for example, oversight committee positions and staff resources (Judge-Lord, Grimmer and Powell, 2018). When they do engage in bureaucratic policymaking, legislators often use the highly institutionalized nature of agency rulemaking to their advantage by raising process concerns about agency policies they dislike (Lowande and Potter, 2021). I build on this literature in Section 3.2.5 and show that members of Congress engage in bureaucratic policymaking because they are mobilized by public pressure campaigns. Moreover, I show that the lobbying coalitions that members of Congress support are more likely to achieve their desired policy outcomes.

1.1.1.3 *Courts*

Courts arbitrate between congressional and presidential control by reviewing bureaucratic policy for congressional intent and adding additional procedural requirements to policymaking (Bueno de Mesquita, Stephenson and Stephenson, 2007). Because statutes often give interest groups standing to take agency policies to court, judicial review is also a lever for interest group influence. Unlike lawsuits challenging the constitutionality of a statute passed by Congress, lawsuits challenging agency policies often accuse the agency of failing to meet procedural requirements.

While judges may often uphold or strike down agency policies based on their ideological position (Cohen and Spitzer, 1996; Segal and Spaeth, 2002; Bailey and

Maltzman, 2008), the process by which agencies make policy also affects judicial review (Judge-Lord, 2016). Judges may evaluate an agency's accountability to political principals, the expertise agency officials employed, or by who participated in the policy process. For example, in a landmark case on judicial review, *Chevron U.S.A., Inc. v. NRDC* (2001, 467 U.S. at 865), the Supreme Court held that the EPA deserved deference because “the regulatory scheme is technical and complex, the agency considered the matter in a detailed and reasoned fashion, and the decision involves reconciling conflicting policies.” This suggests that both the agency’s use of expertise and the process by which the decision was made affect judicial review. In another landmark case, *U.S. v. Mead Corp.* (2001, 533 U.S. at 218), the Supreme Court held that courts should review agency policy for “the fairness and deliberation that should underlie a pronouncement of such force.” Reviewing courts often cite levels of public participation as evidence of a fair and legitimate process. Court opinions frequently note whether a policy resulted from notice-and-comment rulemaking and, occasionally, how representative commenters were. For example, in another landmark case on judicial review, *Vermont Yankee v. NRDC* (1978, 435 U.S. at 519), Justice Rehnquist noted that “[m]ore than 40 individuals and organizations representing a wide variety of interests submitted written comments.”

The features that shape bureaucratic policymaking—attention from political principals, the weight of expertise, and levels of public participation—may shape judicial review as well. In addition to accountability and expertise, the level and type of public participation are important criteria for legitimacy from pluralist and direct democracy perspectives (Woods, 2013). In these perspectives, the type of groups or the number of individuals participating in bureaucratic policy may affect the perceived legitimacy of policies. Justices may respond to cues that reflect the relative support of the public or of those affected by the policy (Clark, 2009).

While there is little evidence that judges are persuaded by (or even know) the share of public comments supporting a rule, there is evidence that bureaucratic policies with more public participation are more likely to be upheld (Judge-Lord, 2016). If levels of public attention and participation affect judicial review, we would expect them to also affect the politics of bureaucratic policymaking in the shadow of judicial review.

This subsection has focused on accountability to political principals. The next subsection reviews the importance of expertise, and, of course, my project squarely addresses who participated.

1.1.2 The Institutional Context of Bureaucratic Policymaking

Two features set bureaucratic policymaking apart from how policy is made in Congress, the White House, and courts: it is highly structured and often places much greater weight on specialized expertise. The importance of structure and expertise are key features of bureaucracy in general, especially large public bureaucracies like the U.S. federal government. But structure and expertise take on special significance in the context of policymaking. The next two subsections address the special importance of structure and expertise in bureaucratic policymaking. In policymaking, the tasks prescribed by bureaucratic structure are the tasks of lawmaking, including processes for soliciting and responding to public input. The value placed on expertise makes bureaucratic policymaking notably technocratic.

1.1.2.1 Structured Policymaking

The theories about the drivers of public participation and the mechanisms by which it may affect policy that I advance and test in the following chapters may apply

to many contexts where public pressure is aimed at decision-makers. My empirical terrain, however, is policymaking by U.S. federal agencies, specifically the process of “notice-and-comment” rulemaking prescribed in the Administrative Procedure Act (APA). These policies (federal agency rules) and their potential to change are the contexts for the political dynamics that I explore in Chapter 2 and the dependent variable for Chapters 3 and 4. The APA governs the process by which federal agencies develop and issue legally binding policies. It requires agencies to publish proposed (draft) and final policies (rules) in the Federal Register and provide opportunities for the public to comment on draft rules.

The legal requirements of Section 553 of the APA impose a great deal of structure on the politics of rulemaking, making it well-suited for quantitative study (Carpenter et al., 2020). Agencies must publish draft rules and solicit public comments, which are entered into the public record (unless they contain proprietary information). Both draft and final rules generally include a preamble detailing the agency’s authority and reasoning in addition to specific modifications to the U.S. Code. Indeed draft rules are often fully formed policy documents (West, 2005; Yackee, 2012). This allows researchers to assess changes between draft and final rules (as I do in Chapters 3 and 4).

After the end of the comment period, the agency usually publishes a Final Rule, which carries the force of law, similar to legislative statutes. The process of publishing a draft rule includes responding to any substantive comments received on the rule. There is no legal requirement for agencies to change final rules in response to comments, and rules are often unchanged from their draft (Kerwin and Furlong, 2011). As Yackee (2019) puts it, “current law provides the public the right to participate in—but not the right to influence—rulemaking” (p. 40). However, accusations that an agency failed to address relevant comments are frequently the ground

for lawsuits challenging rules as arbitrary—that is, lacking legal authority because they failed to adhere to technocratic rationality prescribed by the APA and subsequent court decisions interpreting it.

At the same time, APA requirements have created an extremely legalistic and technocratic form of discourse, leading agency policymaking to be dominated by lawyers and scholarship on rulemaking to be dominated by legal scholars.

1.1.2.2 Expertise as a Basis of Authority

With hundreds of specialized agencies staffed by career specialists, the U.S. federal bureaucracy has expertise that the legislative branch (in its current form) can only approach by borrowing career agency officials to help write legislation (Mills and Selin, 2016). Congress often delegates authority to agencies because of their particular expertise (Weingast, 1984; Bawn, 1995; Epstein and O'Halloran, 1994; Huber and Shipan, 2002; Carpenter and Krause, 2012). Agency officials, in turn, often base their decisions on even more specialized expert advisory committees (Lavertu and Weimer, N.d.).

A reputation for expertise can increase agencies' autonomy and power and thus the legitimacy of their policies (Carpenter, 2001). Agencies almost always appeal to scientific authority to give policies legitimacy. Indeed, reviewing courts often require that policies are justified based on expertise rather than politics. Courts are more likely to defer to policy decisions made by agency officials with more expertise (Epstein and O'Halloran, 1994).

In part because of its normative power, technical jargon may be employed strategically to avoid oversight and reduce public participation (Potter et al., 2019). Agencies vary significantly in the levels of formal expertise they employ (Clinton and Lewis, 2008). Agencies that employ lower levels of formal expertise have higher

levels of public participation in their policymaking processes, possibly because these policies are more accessible (Moore, 2017).

1.1.3 Interest Groups Lobbying

Because certain kinds of expertise are so highly valued—legally, politically, and culturally—in bureaucratic policymaking, interest groups that are able to provide sophisticated comments on draft policies enjoy a privileged status. Lobbying the bureaucracy often means hiring scientists and lawyers. Well-resourced lobbying efforts, especially businesses, have a particular advantage (Yackee and Yackee, 2006). While there is a vast scholarship on industries and other interest groups “capturing” government institutions, scholars of bureaucratic policymaking have shifted to the more flexible concept of interest group influence (Yackee, 2013), recognizing that “capture” is often applied unevenly (Yackee, 2021).

Although business interests participate at a higher rate and are more influential than public interest groups (Yackee and Yackee, 2006), agencies do not always accommodate business groups (Walters, 2019b). When the threat of electoral accountability is greater, agencies may be more likely to serve the interests of the public, even if they impose costs on industry (Miller, Witko and Woods, 2018).

Interest groups play a key role in an agency’s ability to make policy. Agencies secure independent political power and thus autonomy by forming symbiotic relationships with constituent groups (Carpenter, 2001, 2014). Interest group pressure can give agency officials political support and cover from political opposition and thus affect bureaucratic policymaking. Interest group campaigns can sway the media (Carpenter, 2002) and public opinion (Hrebenar and Scott, 2015). Groups also shape political oversight from the White House and (Haeder and Yackee, 2015) and funding from Congress (Berry and Wilcox, 2018). Networks of interest groups and

agencies not only resist influence from the president and Congress but reform the systems of formal and informal authority governing agency policymaking (Rhodes, 1996).

Because each agency is embedded in unique issue networks and advocacy coalitions (Sabatier, 1988), the politics of bureaucratic policymaking takes different forms at each. For example, agencies vary significantly in the scope and scale of stakeholder involvement in their policy processes (Yackee and Yackee, 2006; Moore, 2017). Indeed, as I show in chapter 2, some agencies face vastly disproportionate levels of public pressure. Agencies cultures and issue networks also lead to distinct ideological biases (Richardson, Clinton and Lewis, 2017). In Chapter 4, I show that agencies have different levels of receptivity to groups raising distributive justice concerns.

1.1.4 Public Pressure in Bureaucratic Policymaking

Despite our increasingly robust understanding of interest group lobbying and pressure in bureaucratic policymaking, scholars have yet to articulate a role for “outside” lobbying strategies like public pressure campaigns. Existing theories neither explain nor account for the contentious politics that occasionally inspire millions of people to respond to calls for public input on draft agency policies. Like other forms of mass political participation, such as protests and letter-writing campaigns, mass public comments on draft agency rules provide no new technical information. Nor do they wield any formal authority to reward or sanction bureaucrats, as comments from members of Congress might. The number on each side, be it ten or ten million, has no legal import for an agency’s response. Because they lack both technical information and formal authority, political scientists largely dismiss public pressure campaigns as epiphenomenal to interest group bargaining and principal-

agent constraints. As a result, normative and prescriptive debates over the role of mass public engagement in bureaucratic policymaking have little empirical evidence to draw upon.

Political science scholarship on public pressure campaigns targeting the bureaucracy is extremely limited. Early scholarship on the topic suggested that form letters differ from other comments (Schlosberg, Zavestoski and Shulman, 2007) and suggested that mass comments may be related to longer rulemaking processes (Shapiro, 2008). A recent wave of scholarship has shown that agencies that use high levels of expertise receive fewer comments (Moore, 2017) and that form comments are less likely to be cited by agencies and are less associated with policy change than sophisticated comments (Balla et al., 2020). Additionally, several studies describe mass comment campaigns at the Environmental Protection Agency (Potter, 2017a; Balla et al., 2018). Small adjacent literatures in information technology and public administration journals document fraud in the public comment process (Rinfret et al., 2021) and inadequate training to deal with fraud (Rinfret and Cook, 2019). I discuss each of these studies more extensively as they relate to each of the following empirical chapters, most extensively in Section 2.2.2.1.

1.1.5 Administrative Law Scholarship

In contrast to political scientists, legal scholars have long debated what to make of mass commenting in rulemaking. In 2018, the Administrative Conference of the United States (ACUS) identified public pressure campaigns (“mass commenting”) as a top issue in administrative law. In their report to ACUS, Sant’Ambrogio and Staszewski (2018) conclude,

The ‘mass comments’ occasionally submitted in great volume in highly salient rulemakings are one of the more vexing challenges facing

agencies in recent years. Mass comments are typically the result of orchestrated campaigns by advocacy groups to persuade members or other like-minded individuals to express support for or opposition to an agency's proposed rule. (p. 21)

Most administrative law scholars focus on reforms to help agencies collect more useful information (Farina et al., 2011; Farina, Newhart and Heidt, 2014; Rauch, 2016). The ACUS report "explores agency strategies to enhance public engagement prior to and during informal rulemaking. It seeks to ensure that agencies invest resources in a way that maximizes the probability that rulewriters obtain high-quality public information" (p. 171). Among other things, this committee is debating how best to gather "quality public information" (p. 4), how "to get new people/groups into the real or virtual room" (Farina, 2018, p. 1), and whether broad engagement is even desirable on all rules (White, 2018).

Administrative law scholars have explored these questions theoretically for decades, but only a few offer empirical analysis. Mendelson (2011) finds that agencies often discard non-technical comments but argues that they should be given more weight. Others worry that mass commenting distracts agencies from good policy and the broader public interest (Coglianese, 2006). Farina et al. (2012, p. 112) claim that "[Mass] comments typically are neither factually informative nor reliable indicators of citizens' informed value preferences." Some even call them "spam" (Balla et al., 2018; Noveck, 2004). In this prevailing view, "high-quality" and "relevant" mean novel technical information, not opinions. Herz (2016, p. 208) concludes "The goal of e-rulemaking is to more fully capture such credible, specific, and relevant information, not to solicit the views of random, self-nominating members of the public." Similarly, Epstein, Heidt and Farina (2014, p. 4) dismiss mass comments as "effectively, votes rather than informational or analytical

contributions. Rulemaking agencies are legally required to make policy decisions based on fact-based, reasoned analysis rather than majority sentiment; hence, even hundreds of thousands of such comments have little value in the rulemaking process.” Notably, the ACUS draft recommendations on “Mass and Fake Comments in Agency Rulemaking” suggests that “effective comments” give “reasons rather than just reactions” (ACUS, 2018, p. 33). If true, most public reactions to proposed rules, such as those expressed in the mass comments generated by public pressure campaigns, would not affect rulemaking.

Early optimism among legal scholars that the internet would “change everything” (Johnson, 1998) and that “cyberdemocracy” would enable more deliberative rulemaking has faded. While commenting and mobilizing others to comment has become easier, Coglianese (2006) concludes that little else has changed. The prediction that the internet would primarily facilitate more engagement among the like-minded (Sunstein, 2001) has largely been correct. In this sense, the “quality” of discourse has not improved.

Even scholars who suggest reforms aimed at “regulatory democracy” aim to increase the “sophistication” of ordinary peoples’ comments (e.g., Cuéllar, 2005; Johnson, 2013). For example, Noveck (2004) is critical of “notice and spam,” arguing instead for “participative practices—methods for ‘doing democracy’ that build the skills and capacity necessary for citizens, experts, and organizations to speak and to be heard. Rulemaking, after all, is a communicative process involving a dialogue between regulators and those affected by regulation” (Noveck, 2005, pg. 3). These reformers see mass expressions of opinion as worse than unhelpful. They argue that we need better, more sophisticated citizens to engage in informed discourse that tells policymakers things they do not already know.

This scholarship has improved the theory and practice of policy learning in bu-

reauratic policymaking. But a focus on sophisticated deliberation and technical information overlooks the potential role of political information—information about the political context in which policymakers make decisions.² Whereas administrative law scholars have focused on “how technology can connect the expertise of the many to the power of the few” (Noveck, 2009, p. 14), I ask whether it may also connect the power of the many to the decisions of the few.

1.2 Outline of the Dissertation

How, if at all, should scholars incorporate mass engagement into models of bureaucratic policymaking?

I take up a part of this question in each of the following chapters. In Chapters 2-4, I develop and test theories about the roles of individuals, organizations, coalitions, and social movements in bureaucratic policymaking. Chapter 5 concludes with remarks about the implications for my analysis for ongoing debates over potential reforms to the policy process.

Each chapter draws on different literatures to better understand bureaucratic policymaking. Chapter 2 integrates literatures on interest-group mobilization and bureaucratic politics to understand why public pressure campaigns target agencies in the first place. Chapter 3 focuses squarely on the classic bureaucratic politics question of interest group influence in policymaking but expanded to account for public pressure campaigns. Chapter 4 brings in the literature on social movement pressure to show that pressure campaigns are more than a lobbying tactic; they are also an institutionalized form of contentious politics over the distribution of governmental

²But see insights from Golden (1998), Nelson and Yackee (2012), Rauch (2016), and Potter (2017a) on political information, Cuéllar (2005) on participation and voice, and Reich (1966) and Seifert (2016) on representation, which I review in 2.2.

power.

Chapter 2, “Why Do Agencies (Sometimes) Get So Much Mail?” addresses who participates in public pressure campaigns and why. Are public pressure campaigns, like other lobbying tactics, primarily used by well-resourced groups to create an “astroturf” impression of public support? Or are they better understood as conflict expansion tactics used by less-resourced “grassroots” groups? I find that mass comment campaigns are almost always a conflict expansion tactic. Furthermore, I find no evidence of negativity bias in public comments. While most comments opposed proposed rules during the Trump administration, most comments supported proposed rules during the Obama administration. This is because public comments tend to support Democratic policies and oppose Republican policies, reflecting the asymmetry in mobilizing groups.

Chapter 3, “Do Public Pressure Campaigns Influence Policy?” leverages a mix of hand-coding and computational text analysis methods to assess whether public pressure campaigns increase lobbying success. To measure lobbying success, I develop computational methods to identify lobbying coalitions and estimate their effect on each rule posted for comment on regulations.gov. I then validate these methods against a random sample of rules, hand-coded for whether each lobbying coalition got the policy outcome they sought. Finally, I assess potential mechanisms by which mass public engagement may affect policy. I focus on congressional oversight as a mediator in policy influence, i.e., the extent to which public pressure campaigns affect policy indirectly through their effects on legislators’ oversight behaviors. I find that public pressure campaigns are correlated with congressional attention but have little relationship with policy outcomes.

Chapter 4, “The Environmental Justice Movement and Bureaucratic Policymaking,” examines the discursive effects of environmental justice claims both qualita-

tively and quantitatively. I write about the role of Native activists and environmental groups in shaping federal environmental regulations. I find that agencies are more likely to add language addressing environmental justice in their final rules when public comments raise environmental justice concerns.

Chapter 5 concludes with implications for theories of bureaucratic policymaking and future research. I then review dominant ways of thinking about public comment periods and proposed reforms to participatory processes in light of the empirical evidence in the previous chapters. I start with a sketch of the various positions staked out by administrative law scholars, each rooted in different theories of democracy. I then review several specific challenges and proposed reforms to the policy process.

— 2 —

Public Pressure: Why Do Agencies (sometimes) Get So Much Mail?

Abstract

I examine who participates in public pressure campaigns and why. Scholars of bureaucratic policymaking have focused on the sophisticated lobbying efforts of powerful interest groups. Yet agencies occasionally receive thousands, even millions, of comments from ordinary people. How, if at all, should scholars incorporate mass participation into models of bureaucratic policymaking? Are public pressure campaigns, like other lobbying tactics, primarily used by well-resourced groups to create an impression of public support? Or are they better understood as conflict expansion tactics used by less-resourced groups? To answer these questions, I collect and analyze millions of public comments on draft agency rules. Using text analysis methods underlying plagiarism detection, I match individual public comments to pressure-group campaigns. Contrary to other forms of lobbying, I find that mass comment campaigns are almost always a conflict expansion tactic rather than well-resourced groups creating an impression of public support. Most public comments are mobilized by public interest organizations, not by narrow private interests or astroturf campaigns. However, the resources and capacities required to launch a campaign cause a few larger policy advocacy organizations to dominate. Over 80 percent of public comments were mobilized by just 100 organizations, most of which lobby in the same public interest coalitions. As a result, the public attention that pressure campaigns generate is concentrated on a small portion of policies on which these organizations focus. I also find no evidence of negativity bias in public comments. Instead, most commenters supported draft policies during the Obama administration but opposed those of the Trump administration, reflecting the partisan

biases of mobilizing groups.

2.1 Introduction

Participatory processes like public comment periods on draft policies are said to provide democratic legitimacy (Croley, 2003; Rosenbloom, 2003), political oversight opportunities (Balla, 1998; McCubbins and Schwartz, 1984), and valuable new information for policymakers (Yackee, 2006; Nelson and Yackee, 2012). The extent to which participatory processes make more democratic, accountable, or informed policy depends on who participates and why.

In civics classrooms and Norman Rockwell paintings, raising concerns to the government is an individual affair. Scholars, too, often focus on studying and improving the ability of individuals to participate in policymaking (Cuéllar, 2005; Zavestoski, Shulman and Schlosberg, 2006; Shane, 2009). But in practice, the capacities required to lobby effectively on matters of national policy are those of organized groups, not individual citizens (Hacker et al., 2021).

Bureaucratic policymaking, in particular, is the ideal context for powerful organized interests to dominate. Policies made by specialized agencies are likely to have concentrated benefits or costs that lead interest groups, especially businesses, to dominate (Lowi, 1969, 1972; Wilson, 1989). Agency policymakers are often experts who are embedded in the professional and epistemic networks of the industries they support and regulate (Gormley, 1986; Carpenter, Esterling and Lazer, 1998; Epstein, Heidt and Farina, 2014). Organizations with superior resources often flood policymakers with technical information valued both in the specific legal context of bureaucratic policymaking and technocratic rationality more broadly (Wagner, 2010). Because agencies are generally framed as “implementers” rather

than “makers” of policy, even the most value-laden policy documents are often framed as derivative of legislative statutes, even when these statutes are decades old. The assumption that Congress makes political decisions, not agencies, persists even as agencies write and rewrite policies that cite the same old statutes, advancing and reversing major policy programs under each subsequent president. All of these features—concentrated costs and benefits, the importance of expertise, and the anti-politics of the technocratic frame—privilege legal and technical experts and thus the organizations with the resources to deploy them.

And yet, activists frequently target agency policymaking with letter-writing campaigns, petitions, protests—all classic examples of “civic engagement” (Verba and Nie, 1987). While recent scholarship on bureaucratic policymaking has shed light on sophisticated lobbying, especially by businesses, we know surprisingly little about the vast majority of public comments, which come from the lay public. The few studies to address the massive level of participation from the lay public (i.e., not professional policy influencers) tend to *compare* it (often unfavorably) to the participation of more sophisticated actors (Balla et al., 2020) or suggest ways to *improve* the “quality” of citizen input. Raising the quality of citizen comments means making them more like the technical comments of lawyers and professional policy influencers (Cuéllar, 2005; Farina et al., 2011, 2012; Epstein, Heidt and Farina, 2014; Farina, 2018; Mendelson, 2011).

I argue that contrasting the quality of input from citizens and lobbying organizations is misguided. Indeed, “it can be difficult to distinguish an individual’s independent contribution from an interest-group-generated form letter” (Seifter, 2016, p. 1313). Rather, to study public participation, we must *attribute* public engagement to the broader lobbying effort it supports. I show that most public comments in U.S. federal agency rulemaking are part of organized campaigns, more akin to pe-

tition signatures than “deliberative” participation or sophisticated lobbying. Moreover, nearly all comments are mobilized to support more sophisticated lobbying efforts. Comments from the lay public are neither “deliberative” nor “spam.” People participate because they are *mobilized* into broader lobbying efforts. Because nearly all mobilizing organizations are repeatedly lobbying, these public pressure campaigns are often broader than the policy they target. Often they aim to raise attention and build power for future policy fights.

Without an accurate and systematic understanding of public participation—*group-mediated* participation—in bureaucratic policymaking, it is impossible to answer normative questions about how participatory processes like public comment periods may enhance or undermine various democratic ideals. Surely, those who tend to engage are far from representative of the broader public (Verba and Nie, 1987). That said, even a fairly elite segment of the public is likely more representative than the handful of political insiders who usually participate in bureaucratic policymaking. If the usual participants have “an upper-class accent” (Schattschneider, 1942), does adding thousands of more voices dilute this bias? The answer depends on how people are mobilized. If the “usual suspects” mobilize public participation to create a misleading impression of broad public support for their policy positions, they may merely legitimize the demands of the same group of powerful interest groups that would dominate without broader public participation. If, however, public pressure campaigns are used by groups that are typically excluded or disadvantaged in the policy process, then public comment processes may democratize bureaucratic policymaking.

While practitioners and administrative law scholars have long pondered what to make of letter-writing campaigns targeting the bureaucracy, political scientists have had surprisingly little to say about this kind of civic participation and the role of

public pressure in bureaucratic policymaking. Scholars trained in law tend to focus on the normative and legal import of public participation and pay less attention to how groups gain and wield power (notable exceptions include Coglianese, 2001; Wagner, 2010; Wagner, Barnes and Peters, 2011; Seifter, 2016). Nearly all empirical studies of bureaucratic policymaking in political science journals exclude form letters from their analysis. While Coglianese (2001) and Shapiro (2008) suggested that mass comments may have important effects, including on the time it takes to make policy, studies addressing more than a few example cases have only appeared recently. The most comprehensive study to date (Moore, 2017) finds less participation when agencies rely more heavily on expertise. Examining policies made by the Environmental Protection Agency, Potter (2017a) finds that advocacy groups mobilize more often than industry groups, and Balla et al. (2020) find that form letters are cited less often and are less associated with policy change than comments written by lawyers and other professional policy influencers.

While this growing body of scholarship has improved our understanding of bureaucratic policymaking, public participation is still largely under-tilled empirical terrain on which to extend and evaluate theories about civic participation and pressure politics. Much of our knowledge about civic participation beyond voting comes from surveys and qualitative studies of particular groups. In contrast, models of bureaucratic policymaking focus on the participation of sophisticated lobbying groups. These models neither explain nor account for public pressure campaigns. Thus, civic engagement in general and organized public pressure in particular remain poorly understood in the context of bureaucratic policymaking.

Political scientists' neglect of public pressure campaigns that target the bureaucracy is surprising given that some of the most contentious recent public controver-

sies involve bureaucratic policymaking.¹ Pressure campaigns are important because most people are only aware of bureaucratic policymaking when it is the target of a public pressure campaign. Indeed, because most agency policies receive so little attention, pressure campaigns often increase the level of public attention by several orders of magnitude. And as I show below, pressure campaigns have become more frequent. The ease of online mobilizing and commenting has, like other forms of participation (Boulianne, 2018), greatly increased the number of policies on which thousands and even millions of people comment.

Figure 2.1: Regulations.gov Solicits Public Comments on Draft Agency Rules



The general failure to explain and account for public pressure campaigns in models of bureaucratic policymaking is also striking in light of how agencies advertise public comment periods as an opportunity for a voice in government decisions. The regulations.gov homepage solicits visitors to “Make a difference. Submit your comments and let your voice be heard” and “Participate today!” (Figure 2.1). A blue “Comment Now!” button accompanies a short description of each draft policy and

¹While bureaucratic policymaking usually receives little attention, it is increasingly becoming a flashpoint for public controversies. For example, along with 50 thousand protesters in Washington D.C., the State Department Received 1.2 million comments on the Environmental Impact Statement for the Keystone Pipeline. Similarly, along with the thousands of protesters supporting the Standing Rock Sioux protest of the Dakota Access Pipeline, the Army Corps of Engineers received hundreds of thousands of public comments. Alongside protest actions that included shutting down many websites, the Federal Communications Commission’s Open Internet Rule received millions of public comments. While some of these comments appear fake (Rinfret et al., 2021), the scale of public engagement is remarkable given how little attention political scientists have paid to it. Fake public comments also raise the question of why an organization would bother to generate fake public input if such comments did not matter, as the omission from theories of bureaucratic policymaking would seem to imply.

pending agency action. Public comment periods on draft agency policies are described as “an important part of democracy” (WSJ 2017), “often held out as the purest example of participatory democracy in actual American governance” (Herz, 2016, p. 1). Rossi (1997) finds that “courts, Congress, and scholars have elevated participation in rulemaking to a sacrosanct status...greater participation is generally viewed as contributing to democracy” (p. 2). And yet, political scientists have paid little empirical or theoretical attention to the role of public pressure in bureaucratic policymaking.

To fill this gap, I bring theories of conflict expansion and pressure tactics into theories of bureaucratic policymaking. Because theories of bureaucratic policymaking focus on the power of information and expertise in policymaking, I highlight how public pressure campaigns create new information about the political context (“political information”). Doing so reveals competing intuitions about the drivers of public participation, which I assess using a large new dataset of participation in federal agency rulemaking.

To begin to make sense of public participation in bureaucratic policymaking, I develop a typology of different kinds of participation, with implications for the normative value of participatory institutions. Because political participation is almost always a collective affair, this includes a typology of public pressure campaigns.

First, I develop and assess two theories of who should mobilize public pressure campaigns and why. Each theory has observable implications for which types of groups will run campaigns in different contexts. One stems from scholarship on bureaucratic decision-making and interest group lobbying. It predicts that groups with more resources will dominate all forms of lobbying, including public pressure campaigns. The other emerges from theories of democratic politics. It predicts that groups with fewer material resources but more popular support will more often use

public pressure campaigns. To the extent that public pressure campaigns drive participation, the normative value of participatory processes like public comment periods depends on who organizes these campaigns.

Suppose public pressure campaigns follow the usual patterns of interest group lobbying, where the groups with the most resources dominate. In that case, the procedural legitimacy they provide is merely a veneer masking the influence of powerful political insiders. Instead of diversifying the available information, they would merely reinforce powerful insiders' claims and issue frames. We would expect pressure campaigns to push policy further in the direction desired by the most powerful insiders.

Instead, if the usual suspects do not dominate public pressure campaigns, participatory processes may yet improve the democratic credentials of American policymaking, expand political oversight, and diversify the information available to policymakers. To the extent that public pressure tactics empower groups that are usually left out of the policy process, pressure campaigns may blunt the influence of powerful insiders. Thus, to understand the empirical effects or normative value of participatory processes like public comment periods, we first need to know who participates and why. To the extent that public participation is mobilized by campaigns, we need to know who is behind them.

Second, I offer a theory about the conditions under which we should see private and public interest group campaigns. I argue that public interest groups more often have incentives to launch public pressure campaigns than private interests. Private interests have incentives to sponsor campaigns (including astroturf campaigns) under much more limited conditions. Campaigns from private interests should thus be less common than campaigns from public interest groups. However, I argue, the resources required to run a campaign will lead a few large public interest groups to

dominate.

To assess these theories, I assemble a new dataset of thousands of public pressure campaigns that collectively mobilized millions of public comments across three administrations from 2005 to 2020. Using a mix of qualitative hand-coding and computational text analysis, I identify the coalitions of groups behind each campaign and the type of interest group they represent.

I find that mass participation in bureaucratic policymaking is better explained by theories of democratic institutions and conflict expansion rather than existing theories of bureaucratic policymaking. In other words, participation is overwhelmingly organized by relatively broad public interest groups who aim to shift rather than reinforce the typical balance of power in the policy process.

While greater public participation means that broader interests are represented, the resources and capacity required to mobilize people constrains which type of organization can use these tactics. Participation is overwhelmingly driven by the policy advocacy efforts of a few public interest groups. Indeed, just 100 advocacy organizations mobilized over 80 percent of all public comments. Traditional membership organizations and unaffiliated individuals account for a smaller portion, and “astroturf” campaigns are rare, almost exclusively arising in opposition to a large public interest group campaign, as my theory anticipates. One consequence of the concentration of organizing capacity is that public engagement in rulemaking is highly clustered on a few rules made salient by public pressure campaigns. Moreover, because these large national advocacy groups are overwhelmingly more aligned with the Democratic party, the politics of public participation in bureaucratic policymaking look very different under Democratic and Republican presidents. Public pressure is much more likely to support policies made by Democrats than Republicans.

I proceed in the following steps. Section 2.2 reviews the literature on civic engage-

ment, democratic politics, and bureaucratic politics and then develops hypotheses about the causes of public engagement in bureaucratic policymaking. Section 2.3.1 introduces a novel dataset that systematically captures public participation in federal agency rulemaking. Section 2.3.2 outlines methods to assess my hypotheses using text analysis to leverage public comments as both content-rich texts and large-n observational data. Section 2.4 presents the results of this analysis.

2.2 Theory: Interest Groups as Mobilizers and Influencers

Interest groups play a critical role in American politics. As Hacker et al. (2021) observe,

[The United States'] institutional terrain advantages political actors with the capacity to work across multiple venues, over extended periods, and in a political environment where coordinated government action is difficult, and strategies of evasion and exit from regulatory constraints are often successful. These capacities are characteristic of organized groups, not individual voters. (Hacker et al., 2021, pg. 3)

Organized groups play at least two key functions in a large democracy: (1) organizing and mobilizing people around ideas and interests and (2) sophisticated lobbying to affect policy (Truman, 1951). The next two subsections address each in turn.

2.2.1 The Mobilization of Interest

Mobilizing citizens and generating new political information (information about the distribution and intensity of policy preferences and demands) are key functions of interest groups in a democracy. Advocacy groups are “intermediaries between public constituencies and government institutions,” which often represent segments of

the public with “shared ideologies or issue perspectives” (Grossmann, 2012, p. 24). In doing so, public interest groups provide countervailing forces to business interest groups (Mansbridge, 1992). Engaging citizens to participate in the policy process is a common strategy for groups to gain and exercise power (Mahoney, 2007b), and thus a major driver of civic engagement (Skocpol, 2003; Dür and De Bièvre, 2007). Conflict among pressure groups, even those representing private interests, can lead to more majoritarian policy outcomes (Yackee, 2009). Indeed, pluralist theories of democracy rely on interest groups to represent segments of the population in policymaking (Dahl, 1958, 1961), though they may do so poorly (Schattschneider, 1975; McFarland, 2007; Seifter, 2016).

2.2.1.1 Forms and Drivers of Civic Participation

Classic examples of civic engagement include participation in letter-writing, signing petitions, protesting, or attending hearings (Verba and Nie, 1987). Importantly, Verba and Nie (1987) distinguish “citizen-initiated contacts” with the government from “cooperative activity” (p. 54). Political behavior research tends to focus on the choices of individuals. For example, survey research on political participation often studies activities like letter-writing as if they are citizen-initiated contacts rather than a group activity. Administrative law scholarship often discusses individual participants in rulemaking in a similar way. Cuéllar (2005) finds that members of the “lay public” raise important new concerns beyond those raised by interest groups. He advocates for reforms that would make it easier for individuals to participate and increase the sophistication of individual comments on proposed policies. However, most individual participation is not spontaneous and may be better classified as cooperative.

Cooperative activities are coordinated and mediated through organizations. By

coordinating political action, public pressure campaigns expand civic participation in policymaking. I follow Verba and Nie (1987) in defining “civic participation” as “acts aimed at influencing governmental decisions” (p. 2). Some argue that participation only counts if it is deliberative, which mass comment campaigns are not (at least at the individual level). For example, Rossi (1997) argues mass comment campaigns are deleterious to civic republican ideals. Other criteria posed by normative theorists that participation should be “genuine,” “informed,” or “reasoned” are more difficult to assess. Normative theorists debate whether deliberation among a few people is preferable to a large number of people simply expressing their preferences. But empirically, public participation in bureaucratic policymaking is much more the latter (Shapiro, 2008). In terms offered by Mansbridge (2003), public pressure campaigns are more about democratic aggregation than deliberation. Carpenter (2021) similarly characterized petitioning as “another model of aggregation” (p. 479) beyond elections.

Self-selection may not be ideal for representation, but opt-in forms of participation—including voting, attending hearings, or commenting on proposed policies—are often the only information decisionmakers have about public preferences. On any specific policy issue, most members of the public may only learn about the issue and take a position as a result of a public pressure campaign. Likewise, elected officials may only learn about the issue and take a position as a result of a public pressure campaign (Hutchings, 2003). Campaigns inform agencies about the distribution and intensity of opinions that are often too nuanced to estimate *a priori*. Many questions that arise in rulemaking lack analogous public opinion polling questions, making mass commenting a unique source of political information. However limited and slanted, this information is directed at policymakers who may be unsure how the public and other political actors will react to

their policy decisions.

Forms of civic participation beyond voting, such as protests and petitions, offer unique opportunities for minority interests in particular. Protests can be an effective mechanism for minority interests to communicate preferences to policymakers when electoral mechanisms fail to do so. Policymakers learn and take informational cues from political behaviors like protests (Gillion, 2013). Carpenter (2021) finds similar potential for petitions to serve as a channel to raise “new claims” and influence policy beyond elections: “Petition democracy offers another model of aggregation, where numerical minorities could still make a case of quantitative relevance” (pg. 479). Numbers matter for protests and petitions, regardless of whether they represent a majority. These modes of preference aggregation often claim to represent a substantial segment of the public, perhaps a larger portion than those as passionately opposed to them.

2.2.1.2 Pluralism and Group Conflict in Democratic Theory

An organization can reshape the political environment by expanding the scope of conflict (Schattschneider, 1975). Political actors bring new people into a political fight by using press releases, mass mailing, and phonebanking to drum up and channel public support. Conflict expansion strategies that attempt to engage the broader public are often called “going public” (Kollman, 1998). Going public (also called outside lobbying or an outside strategy) contrasts with insider lobbying. Political actors go public when they expand the scope of conflict beyond the usual cadre of political actors. This strategy is used by presidents (Kernell, 2007), members of Congress (Malecha and Reagan, 2012), interest groups (Walker, 1991; Dür and Mateo, 2013), lawyers (Davis, 2011), and even judges (Krewson, 2019). For example, when presidents face difficult negotiations with Congress, they often use

their bully pulpit to mobilize segments of the public to pressure elected representatives. Likewise, interest groups mobilize segments of the public to pressure policy-makers as part of their lobbying strategy.²

Organizations that mobilize people to engage in policy debates (e.g., through letter-writing campaigns) go by many names, each with slightly different connotations. These include pressure groups (Schattschneider, 1942), policy advocacy groups (Potter, 2017a; Grossmann, 2012), citizen groups (Berry, 1999), and policy change organizations (McNutt and Boland, 2007).

2.2.1.3 Public Pressure as a Resource

An organization's ability to expand the scope of conflict by mobilizing a large number of people can be a valuable political resource (Lipsky, 1968; Schattschneider, 1975; Kollman, 1998). In contrast to scholars who focus on the deliberative potential of public comment processes, I focus on public engagement as a tactic aimed at gaining power. Scholars who understand mobilization as a tactic (Furlong, 1997; Kerwin and Furlong, 2011) have focused on how organizations mobilize their membership. I expand on this understanding of mobilization as a lobbying tactic to include the broader audiences that policy advocacy organizations and pressure groups often mobilize. The broader audiences mobilized through public pressure campaigns are more akin to the concept of an attentive public (Key, 1961) or issue public (Converse, 1964).

Furlong (1997) and Kerwin and Furlong (2011) identify mobilization as a tactic. The organizations they surveyed reported that forming coalitions and mobilizing

²I use “mobilizing” rather than “organizing” because organizing often implies that people are organized in a way that is more enduring than signing a single petition or writing a single letter. Mobilizing implies an activation but not necessarily an enduring organizational structure. More research is needed on the extent to which these mass mobilization campaigns create enduring organization.

large numbers of people were among the most effective lobbying tactics. Studies of rulemaking stress the importance of issue networks (Gormley, 1986; Golden, 1998) and coalitions (Yackee and Yackee, 2006; Nelson and Yackee, 2012; Dwidar, 2021b; English, 2019a). Other studies have described how organizations are behind form letter campaigns (Potter, 2017a; Balla et al., 2018, 2020). Scholars have thus measured coalitions of organized groups and, separately, attached form letters to mobilizing organizations. I combine both of these approaches: defining mass mobilization as one tactic in coalition lobbying. I consider the lobbying coalition the unit of analysis and thus, unlike prior studies, attribute citizen comments to the coalition that mobilized them (not just the organization).

Second, Nelson and Yackee (2012) identify political information as a potentially influential result of lobbying by different business coalitions. While they focus on mobilizing experts, I argue that the dynamic they describe can be extended to public pressure campaigns:

Strategic recruitment, we theorize, mobilizes new actors to participate in the policymaking process, bringing with them novel technical and political information. In other words, when an expanded strategy is employed, leaders activate individuals and organizations to participate in the policymaking process who, without the coordinating efforts of the leaders, would otherwise not lobby. This activation is important because it implies that coalition lobbying can generate new information and new actors—beyond simply the ‘usual suspects’ —relevant to policy decisionmakers. (Nelson and Yackee, 2012, p. 343)

Regarding political information, I extend this logic to non-experts. The number and distribution of ordinary supporters may matter because it suggests a *public* consensus, at least among some segments of the attentive public. (By “ordinary” people, I simply mean people who are not professional policy influencers.) Instead

of bolstering *scientific* claims, a perceived public consensus bolsters *political* claims. To understand why groups organize public pressure campaigns, we must understand mass mobilization as a tactic aimed at producing political information.

2.2.1.4 Second-order Representation

The potential for “cheap talk” in claims of representation is a problem for the ability of groups to communicate credible political information. When lobbying during rulemaking, groups often make dubious claims to represent broad segments of the public (Seifter, 2016). If agency staff do not trust an organizations’ representational claims, then engaging actual people may be one of the few credible signals of a broad base of support. This is especially true when organizations claim to represent people beyond their official members.

Advocacy organizations often claim to represent a large number of “members and supporters” (FWS-HQ-ES-2018-0007-47165). For example, in its comment on proposed regulations on internet gambling, the Poker Players Alliance claimed to represent “more than 840,000 poker enthusiast members” (TREAS-DO-2007-0015-0118). Many of these people became “members” when they signed up to play a free online poker game. However, the organization also claimed to have mobilized over 150,000 letters to members of Congress, which, if true, would indicate an active base of public support.

Membership organizations often claim to represent more than their membership. While political science theories often assume that membership organizations advocate for the exclusive private interests of their members, many membership organizations also lobby for broader policy agendas (Ahlquist and Levi, 2013; Mansbridge, 1992; Michener, 2019). For example, healthcare worker unions frequently lead policy campaigns focused on public health and even issues like climate change. The

link between an organizations' policy agenda and the preferences of its members is sometimes more plausible than others.

Mobilizing people to write or sign public comments is one way—perhaps the best way—for organizations to provide evidence that they represent who they say they do. For example, the Natural Resources Defense Council (NRDC), a top mobilizer of public comments, often claims to represent “3 million members and online activists” (NRDC, 2021)—a figure that presumably includes anyone who has donated to or participated in one of its campaigns. Mobilizing comments is one way that NRDC can demonstrate active support for their specific position on a given issue.

To be sure, agency officials have a large amount of political information about their policy areas before soliciting comments. This information may vary across issues. For example, policymakers may better understand the number of people who support NRDC and their politics than they understand the supporters claimed by the Poker Players Alliance. Still, an organizations' level of effort and the scale and intensity with which the attentive public responds to a pressure campaign may provide information about the politics of a given policy issue. A large showing for a campaign supporting a proposed policy may give bureaucrats a talking point with their political superiors or provide political cover to avoid congressional constraints. A surprising level of opposition may make agency leaders question their political tactics.³

Furthermore, if D.C. professionals primarily make advocacy group decisions (Skocpol, 2003), these advocates themselves may be unsure of how broadly their claims resonate until potentially attentive segments of the public are engaged. A large amount of support may encourage professional policy influences to push

³In appendix 3.2.4 I elaborate on formal models that emphasize the impact of unexpected information in public comments.

officials harder to accommodate their requests.

Theorists debate whether signing a petition of support without having a role in crafting the appeal is a meaningful voice and whether petitions effectively channel public interests, but, at a minimum, engaging a large number of supporters may help broader interests distinguish themselves from truly narrower ones. It suggests that the organization is not entirely “memberless” (Skocpol, 2003) in the sense that it can demonstrate some verifiable public support. An organization mobilizing its members and supporters to take some action lends weight to representational claims that might otherwise be indistinguishable from cheap talk claims that groups often make to represent broad constituencies. Demonstrated grassroots support is political information that may bolster a group’s representational claims.

The credibility of the signal that mass engagement provides may be complicated by “astroturf” campaigns, where organizations aim to project the image of a larger base of support than they truly have (McNutt and Boland, 2007; Rashin, 2017). To the extent that support can be effectively faked or inflated using astroturf tactics, the political information that pressure campaigns provide will be less accurate and thus less valuable to decisionmakers.

Astroturf campaigns that utilize faked evidence of mass support (e.g., fake petition signatures) bypass the public pressure and mass engagement step entirely, manifesting false political information. However, in a model where political information supports an organization’s broader lobbying efforts, providing fake political information is a risky strategy. Organizations lobbying in repeated interactions with agencies and an organization’s reputation—critical to its ability to provide credible technical information—may be harmed if policymakers learn that they provided false political information. One observable implication is that astroturf campaigns will often be anonymous or led by organizations that do not also engage in sophis-

ticated lobbying. This may provide sophisticated lobbying organizations plausible deniability. However, because policymakers should rationally discount petitions submitted anonymously or by unknown organizations, fraudulent campaigns have little hope of influencing policy in this model. Compared to a model where political information is not mediated by groups that also engage in sophisticated lobbying, astroturf campaigns should be fairly rare if my theory is correct.

2.2.2 Lobbying in Bureaucratic Policymaking

Theories of interest-group influence in bureaucratic policymaking have focused more on sophisticated lobbying than the mobilizing functions of interest groups. Broadly, this scholarship has concluded that technical information is the currency of insider lobbying and that businesses are best positioned to influence bureaucratic policymaking. Empirical scholarship finds that economic elites and business groups dominate American politics in general (Jacobs and Skocpol, 2005; Soss, Hacker and Mettler, 2007; Hertel-Fernandez, 2019; Hacker, 2003; Gilens and Page, 2014) and rulemaking in particular. While some are optimistic that requirements for agencies to solicit and respond to public comments on proposed rules allow civil society to provide public oversight (Michaels, 2015; Metzger, 2010), most studies find that participants in rulemaking often represent elites and business interests (Seifter, 2016; Crow, Albright and Koebele, 2015; Wagner, Barnes and Peters, 2011; West, 2009; Yackee and Yackee, 2006; Yackee, 2006; Golden, 1998; Haeder and Yackee, 2015; Cook, 2017; Libgober and Carpenter, 2018).

Foundational scholarship on rulemaking (Furlong and Kerwin, 2005; Furlong, 1997, 1998; Kerwin and Furlong, 2011) focuses on interest group lobbying. Theoretical models and empirical scholarship has focused on how interest groups help agencies learn about policy problems (Yackee, 2012; Gordon and Rashin, 2018; Wal-

ters, 2019a). Formal models of rulemaking (Gailmard and Patty, 2017; Libgober, 2018) are information-based models where public comments reveal information to the agency. Legal and scientific information is so important that flooding policymakers with technical information is a highly effective lobbying strategy (Wagner, 2010).

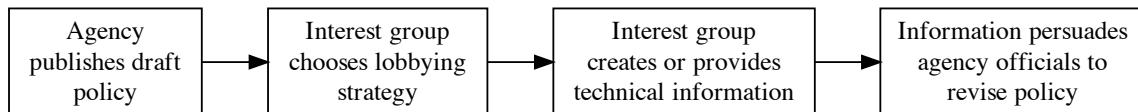
Figure 2.2 illustrates the “classic model” of insider lobbying that describes most rulemakings and nearly all scholarship on lobbying in bureaucratic policymaking to date. The first step in the policy process is the publication of a draft rule (Agency publishes draft policy). The first broadly observable step in the rulemaking process is usually an agency publishing a draft rule in the Federal Register.⁴ While organized groups certainly shape the content of draft policies (West, 2004), the public portion of the policy process begins when the draft is officially published. Taking the publication of a draft policy as my starting point builds on the idea that “new policies create politics” (Schattschneider, 1935).

After learning about the content of the policy, interest groups form concrete opinions about how exactly they would like the policy to change and develop a strategy to achieve their goals (Interest group chooses lobbying strategy) in the public comment stage of the policy process. These demands lead organizations to form lobbying coalitions and lobbying strategies that research may, in theory, observe. To date, most studies of rulemaking have focused on the power of expertise and novel technical information that may lead agency officials to re-evaluate their policy decisions (Information persuades agency officials to revise policy).

The contentious politics of mobilizing and countermobilizing that inspires most public engagement in policymaking have no place in leading models of bureaucratic

⁴As agency rulemaking is my empirical case of policymaking, I use “rule” and “policy” interchangeably.

Figure 2.2: The “Classic Model” of Interest Group Lobbying in Bureaucratic Policy-making



policymaking and have largely been ignored by political scientists. To the extent that scholars of bureaucratic policymaking address the input of ordinary people and public pressure campaigns, both existing theory and empirical scholarship suggest skepticism that non-sophisticated actors merit scholarly attention.

2.2.2.1 What We Know About Mass Comment Campaigns

The concept of political information that I build upon comes from studies of lobbying coalitions and tactics (Furlong, 1997; Nelson and Yackee, 2012). However, this core scholarship on bureaucratic policymaking does not explicitly address mass comment campaigns. Indeed, nearly all scholarship on rulemaking excludes mass comments from both theory and data. Even studies that aim to assess the impact of the number of comments on each side exclude mass comments (e.g., McKay and Yackee, 2007). To the extent that scholarship on the politics of rulemaking addresses the quantity rather than the quality of comments, most focus on the size of lobbying coalitions (i.e., the number of organizations) rather than the scale of public attention or pressure (Yackee and Yackee, 2006; Nelson and Yackee, 2012).

Most theoretical and empirical work addressing mass comment campaigns in rulemaking to date has come from administrative law scholars. Golden (1998) examines eleven rules randomly selected from three agencies, finding “a dearth of citizen commenters.” Cuéllar (2005) examines three different rules and found many comments from the “lay public” raising issues relevant to agency mandates. However, he finds

that comments from the lay public were much less sophisticated than the comments of organizations and thus less likely to be cited by agencies. Mendelson (2011) finds that agencies often discard non-technical comments. While commenting and mobilizing others to comment has become easier, Coglianese (2006) finds that little else about the rulemaking process changed. Sunstein (2001) finds that the growth of the internet primarily facilitates more of the same kind of engagement among the “like-minded” (i.e., mass-commenting).

Political science scholarship on mass comment campaigns is limited to a few published articles (Shapiro, 2008; Schlosberg, Zavestoski and Shulman, 2007; Balla et al., 2018, 2020), two unpublished dissertations (Moore, 2017; Cook, 2017)⁵, and an online report (Potter, 2017a). Small adjacent literature in information technology and public administration journals document fraud in the public comment process (Rinfret et al., 2021) and gaps in training that bureaucrats receive (Rinfret and Cook, 2019). Schlosberg, Zavestoski and Shulman (2007) note that form letters differ from other comments. Shapiro (2008) investigates whether the number of public comments relates to the time between the publication of the draft and the final rule. With only nine observations, this study was unable to uncover general patterns but suggests that mass comments may be related to longer rulemaking processes. Moore (2017) finds that agencies that use high levels of expertise (as defined by Selin (2015)) receive fewer comments, possibly because mobilizing organizations perceive these rules to be less open to influence.

Cook (2017) examines three controversial Environmental Protection Agency (EPA) rules during the Obama administration. He found that high levels of public attention made it difficult for any one interest group to dominate. This finding

⁵The article published from Cook’s dissertation (Cook, 2018) contains less about mass comment campaigns.

suggests that the effects of lobbying may differ between rules with a lot of public attention and more typical rulemakings, where regulated business groups often dominate or lobby uncontested (Yackee and Yackee, 2006). Representatives of both environmental and industry groups reported that mass comment campaigns were important. And the EPA noted that the majority of comments supported the proposed rule in all three cases.

One of the most theoretically developed and systematic studies to date is a short Brookings Institution report (Potter, 2017a) that also focused on Obama-era EPA rules. Across 359 EPA rules, Potter (2017a) finds that 16 percent were subject to a mass comment campaign. She concludes that “advocacy groups and industry pursue different strategies with respect to comment campaigns.” In contrast to most forms of lobbying (which are dominated by industry groups), pressure campaigns are a tool mostly used by advocacy groups. Here, a “campaign” is form-letter comments associated with an organization (as identified by the EPA). On average, campaigns by advocacy organizations generated twice as many comments as industry-sponsored campaigns. Industry-sponsored campaigns were smaller and less likely to identify the sponsoring organization. Industry groups were much less likely to lobby unopposed than advocacy groups. That is, industry groups almost never sponsored campaigns on rules where environmental groups had not, but environmental groups sponsored campaigns even when industry groups did not. Potter (2017a) also finds that most mass comment campaigns supported EPA rules under Obama, with advocacy organizations in support and industry campaigns split between support and opposition.

In addition to extending Potter’s empirical work distinguishing the behavior of advocacy organizations and industry groups, I build on her theorizing about the possible reasons for sponsoring campaigns. Potter argues that public pressure cam-

paigns can expand the scope of the conflict, help grow and maintain advocacy organizations, and give agency leaders political cover to pursue policies in the face of opposition. This chapter explicitly builds on these first two intuitions—how pressure campaigns expand the scope of conflict and grow advocacy organizations. Chapter 3 addresses the third—how public pressure campaigns may affect agency leaders' political principals.

Balla et al. (2018) also focuses on Obama-era EPA rules. They find campaigns occur across issue areas, including complex and economically significant actions. They find broad societal constituencies—such as environmentalists—to be more active in sponsoring campaigns than narrow interests. When industry-led campaigns occur, they divide along sectoral lines, with industries anticipating benefits arguing in favor of stringent regulations and industries forecast to bear the brunt of such actions sponsoring campaigns in opposition to the proposed rules.

Building on their previous work, Balla et al. (2020) study 22 EPA rules and identify 1,049 “campaigns” on these rules—here, a campaign means a batch of form-letter comments associated with an organization, which Balla et al. code as “regulated” (e.g., a power plant) or a “regulatory beneficiary” (e.g., environmental groups). They find that the agency was more likely to reference the technical comments that groups submit than form letters. They also find that several types of observed policy changes (e.g., changes in the number of regulated entities and the date that the rule goes into effect) better align with changes requested by sophisticated interest group comments than those found in form letters. They conclude that “legal imperatives trump political considerations in conditioning agency responsiveness, given that mass comment campaigns—relative to other comments—generally contain little ‘relevant matter’ ” (Balla et al., 2020, p. 1).

While Balla et al. (2020) recognize the political nature of public pressure cam-

paigns, they follow many of the administrative law scholars in comparing form letters to sophisticated technical comments. For example, their model compares the number of times the agency references the lengthy comments drafted by the Sierra Club's Legal Team to the number of times the agency references the short form letters drafted by the Sierra Club's Digital Team. In contrast, I argue that we should understand form letters as a tactic aimed at gaining power for coalitions and organizations that also submit sophisticated technical comments. Public pressure is not an alternative to sophisticated lobbying efforts; it is a resource for the broader task of persuading officials to change their policy decisions.

2.2.3 Incorporating Political Information

How, if at all, should scholars incorporate public pressure into models of bureaucratic policymaking? I argue that mass engagement produces potentially valuable political information about the coalition that mobilized it. To the extent that groups aim to influence policy, public pressure campaigns support sophisticated lobbying. Scholars should study public pressure as a potential complement, not an alternative to sophisticated lobbying. This means that the role that public pressure may play in policymaking depends on who mobilized it and why. The first step in understanding the potential impact of public pressure is to develop theories and testable hypotheses about the drivers of public participation.

In this section, I first develop two theories about the drivers of public participation in bureaucratic policymaking, one rooted in theories of group conflict and democratic politics and the other rooted in existing theories of interest-group lobbying in bureaucratic policymaking. I then offer a theory that specifies the conditions under which we should see different kinds of public pressure campaigns.

2.2.3.1 “Usual Suspects” or “Underdogs”

Existing scholarship points to two possible reasons why agencies may receive millions of public comments. From a conflict expansion perspective, groups that are disadvantaged by the status quo ought to utilize public pressure campaigns. Existing theories of lobbying the bureaucracy suggest that well-resourced and concentrated interests will dominate. Political information may thus play two distinct roles in policymaking with opposite effects depending on who mobilized it. The normative and empirical import of public pressure campaigns thus depends on who is behind them.

To the extent that well-resourced groups (the “usual suspects”) use public pressure campaigns to create a misleading impression of public support (often called “astroturf”), they serve to strengthen and legitimize demands of the same powerful interests that usually dominate bureaucratic policymaking. Here, just as groups with superior resources use them to flood policymakers with technical information (Wagner, 2010), astroturf campaigns convert economic resources into political information—an impression of public support generated by signatures or form letters. Even groups with few members or a narrow or non-existent base of support among the public may create the appearance of public support by sponsoring an astroturf campaign. If the powerful business groups that dominate other forms of lobbying also dominate public pressure campaigns, these campaigns (and perhaps public comment periods themselves) are normatively suspect, providing a democratic veneer to economic power. Empirically, we would then expect public pressure campaigns to further advantage the most well-resourced interests.

The literature on conflict expansion suggests a different possible dynamic. To the extent that less-resourced groups (“underdogs”) use public pressure campaigns as

a conflict expansion tactic, their role is the opposite: to push back against powerful interests that would otherwise dominate bureaucratic policymaking. The political information created by conflict expansion can reveal existing and potential support among attentive segments of the public. Through public pressure campaigns, groups that lack financial resources can convert latent public support into concrete political information that may cause policymakers to update their beliefs and change their decisions.

If public pressure campaigns are mainly a vehicle for public interest groups to convert a latent base of public support into influential political information supporting their representational claims or shining light on the policy process, then public comment periods may yet serve some of the informing, balancing, and democratic functions that practitioners and normative theorists desire. Empirically, we would then expect public pressure campaigns to disadvantage well-resourced interests that dominate most policy processes.

2.2.3.2 The Conditions Under Which Public and Private Interests Mobilize

This section draws on theories of interest group lobbying and conflict expansion to explain variation in mass engagement. First, I offer a framework for assessing the causes of mass engagement. Next, I argue that organizations may mobilize large numbers of people for several reasons with observable implications for observed patterns of public participation.

While most scholars have emphasized the lack of useful technical information in mass comments, a few have raised their role in creating political information. Cuéllar (2005) calls on agencies to pay more attention to ordinary peoples' expressions of preference. Rauch (2016) suggests that agencies reform the public comment process to include opinion polls. Raso and Kraus (2020) suggest a similar reform

whereby people could “upvote” comments with which they agree.

I build from a similar intuition that public pressure campaigns currently function like a poll or, more accurately, a petition, capturing the intensity of preferences among the attentive public—i.e., how many people are willing to take the time to engage. Indeed, many campaigns use the language of public opinion and petitioning. For example, a campaign by the World Wildlife Federation provided language explicitly claiming to have public opinion on its side. Its form letter cited an opinion poll, stating the following: “along with 80 percent of the American people, I strongly support ending commercial trade in elephant ivory in the U.S.” This suggests that public pressure campaigns aim to signal information about public opinion. A coalition led by another environmental group, Oceana, framed its mass mobilization effort to curb the Bureau of Ocean Energy Management’s 2017 Proposed Offshore Oil and Gas Leasing Program as a “petition signed by 67,275 self-proclaimed United States residents,” suggesting that organizations consider some mass-comment campaigns to effectively be petitions. In the same statement, Oceana also claimed the support of “more than 110 East Coast municipalities, 100 Members of Congress, 750 state and local elected officials, and 1,100 business interests, all of whom oppose offshore drilling,” suggesting that demonstrating support from members of the public and elected officials aim to provide similar kinds of political information.

Public pressure campaigns reveal the intensity of passions in attentive segments of the public. Because mass comment campaigns often presage or co-occur with other pressure tactics like protests and lobbying Congress, they may reveal information about other likely political developments.

Building on theories of group conflict in democratic politics, I consider public demands to be a latent factor in my model of interest group lobbying during bureau-

cratic policymaking (Figure 2.3). Public demands shape the decisions of organizations as they choose a lobbying strategy. If they believe a large segment of the attentive public could be rallied to their cause, an organization may attempt to reveal this political information to policymakers by launching a public pressure campaign. That is, the extent to which latent public demands align with a group's demands will affect its lobbying strategy, specifically whether it decides to launch a public pressure campaign.

Figure 2.3: Incorporating Political Information into Models of Interest Group Lobbying in Bureaucratic Policymaking

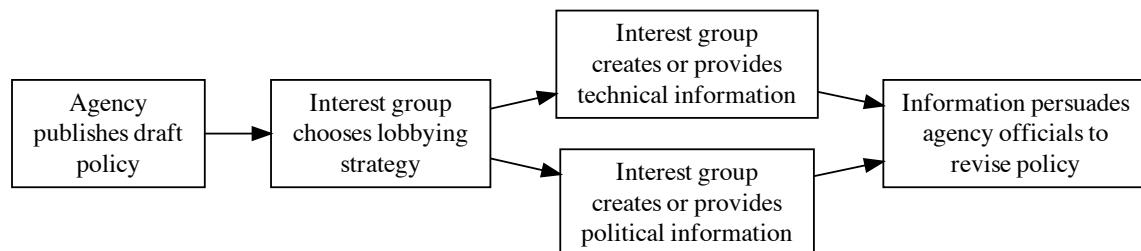


Figure 2.3 amends what I labeled the “classic model” of interest group lobbying from Figure 2.2 to incorporate political information. In the classic model, lobbying strategies are limited to inside lobbying strategies that aim to persuade officials with legal and technical analysis (Interest group creates or provides technical information). In the revised model presented in 2.3, interest groups may add a second strategy to support their legal and technical arguments with political information (Interest group creates or provides political information). For example, they may sponsor a public pressure campaign that generates political information about the attentive public. In this case, the organization provides technical information through sophisticated comments and organizes supporters to produce political information about their lobbying coalition through a mass comment campaign. This is a key feature of the theory: political information is mobilized *to support* a lobbying

coalition's sophisticated legal or technical lobbying effort, not as an alternative to sophisticated lobbying.

Interest groups with more latent public support should see a larger public response to a mobilization. The public response to the campaign (observed as the scale of public engagement in the policy process) depends on the extent to which the attentive public is passionate about the issue. A broader and more passionate attentive public will yield a larger volume of mass engagement than a narrower, less passionate base of public support. Thus the observed volume of mass engagement on a given side of a conflict can reveal political information about segments of the public. Broad engagement may produce several types of relevant political information. The most direct is the expressed “public opinion” that policymakers observe. I address other types of political information that mass engagement may create in Chapter 3.

The causal process visualized in Figure 2.3 may only operate under certain conditions. Policymaking institutions have different mechanisms for processing and incorporating technical and political information (the arrows between “Organization provides technical information” or “Organization provides political information” and “Agency officials revise policy”). Agencies may thus have different levels of receptivity to technical and political information.

Because lobbying organizations likely have some idea of the level of public support for their positions, one observable implication of this model is that lobbying organizations will be more likely to launch a public pressure campaign when they have more public support.

Instead of a public pressure campaign aimed at mobilizing supporters, an organization may attempt to bypass mass engagement by producing fake evidence of public support. However, as I describe below, this is a risky strategy.

2.2.4 Types of Pressure Campaign Motivations

The potential effects of public pressure campaigns depend, in part, on the aims of a campaign. Campaigns may pursue two distinct aims: (1) to advance policy goals or (2) to satisfy some audience other than policymakers (e.g., potential members or donors). Within each goal, campaigns can be further distinguished by whether their side is more likely to benefit or be harmed by an expansion of the conflict. Some groups have incentives to pursue policy goals by *proactively* launching a campaign, i.e., by “going public.” Others only have incentives to launch a campaign *reactively* after some other group has already expanded the scope of conflict. When groups aim to satisfy audiences other than policymakers and expect to win the policy conflict, campaigns are a form of *credit claiming*. Conversely, when a group anticipates losing the particular policy fight but still sees benefits in launching a campaign targeting non-policymaker audiences. I call this *going down fighting*. Proactively going public and reactively mobilizing after the other side has expanded the scope of conflict forms of outside lobbying. Credit claiming and going down fighting describe situations where an organization mobilizes for reasons other than influencing the policy at hand, like engaging or recruiting members.

Proactive campaigns. Coalitions “go public” when they believe that expanding the scope of conflict gives them an advantage. Because coalitions that “go public” should believe they have more intense public support, mass engagement is likely to skew heavily toward this side.

Going public is likely to be used by those who would be disadvantaged (those Schattschneider (1975) calls the ‘losers’) in a policy process with less public attention. More people may also be inspired indirectly (e.g., through news stories) or to engage with more effort (e.g., writing longer public comments) than people mobi-

lized by the side with less public support. This is important because political information may be especially influential if decisionmakers perceive a consensus. The level of consensus among interest groups (Golden, 1998; Yackee, 2006), especially business unity (Yackee and Yackee, 2006; Haeder and Yackee, 2015), predicts policy change.⁶

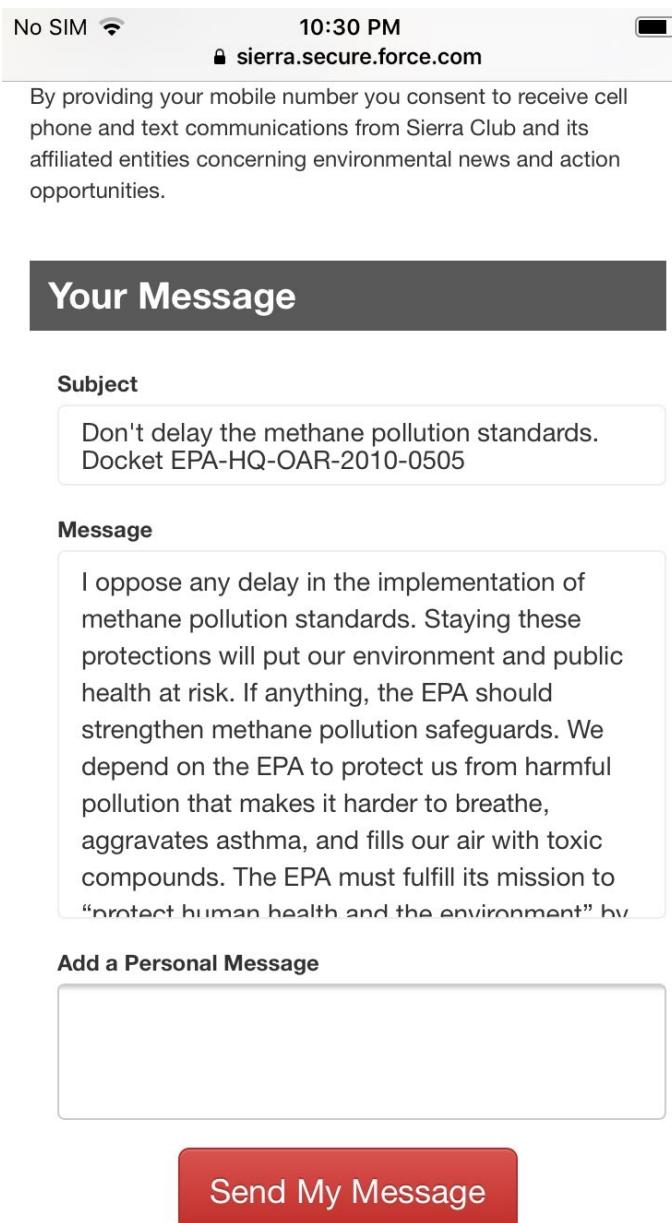
Reactive campaigns. I theorize that when coalitions with less public support mobilize, it is a reaction to their opponents. Because the impression of consensus is potentially powerful, when one coalition goes public, an opposing coalition may countermobilize to emphasize that “both sides” have support from the broader public. Because these are coalitions with less intense public support, I expect such campaigns to engage fewer people. In the extreme, these campaigns may rely on various forms of deception (i.e., astroturf campaigns) to compensate for their disadvantage in genuine public support.

Credit claiming and going down fighting. Finally, campaigns may target audiences other than policymakers. When they expect to win, organizations may launch a “credit claiming” campaign to draw attention to and associate their organization with positive policy developments. When they expect to lose, organizations may “go down fighting” to fulfill supporters’ expectations. These more performative reasons for organizing a campaign may help engage existing supporters and recruit new members. For example, Carpenter (2021) finds that many anti-slavery petitions were this type of campaign, where “the most important readers of a petition are its signatories” rather than the policymakers to whom they are addressed.

Credit claiming and going down fighting campaigns may target member reten-

⁶It is not clear if the power of coalition unity is a result of strategic calculation by policymakers, a perceived obligation due to the normative power of consensus (e.g., following a majoritarian logic (Dahl, 1989; Mendelson, 2011)), or simply that unified demands are easier to process than opposing demands.

Figure 2.4: The Sierra Club Collects Contact Information Through Public Pressure Campaigns



tion or recruitment, fundraising, or satisfying a board of directors. For example, as Figure 2.4 shows, the Sierra Club uses campaigns to collect contact information of supporters and potential members. Given the executive-branch transition between 2010, when the rule was initiated, and 2017 when it was delayed, the Sierra Club likely saw little hope of protecting methane pollution standards in 2017. Still, for members of the public who wanted to voice their opinion to the Trump administration, the Sierra Club created an easy way to do so, as long as users consented to “receive periodic communication from the Sierra Club.” While this campaign may have had little hope of influencing these particular policies, it may have increased awareness of air pollution and built contact lists that could help the Sierra Club fundraise and mobilize in future policy fights.

While “credit claiming” and “going down fighting” are unlikely to have immediate policy effects, they may affect future policies. Because interest groups and agencies both expect to “repeat endlessly” the policymaking process (Lindblom, 1980), power built or demonstrated in one policy process may also be a political resource in future policy fights.

Through repeated interactions, organizations build power with respect to a constituency (Han, 2014) and policymakers (Grossmann, 2012). First, building contact lists or potential donors and supporters are a resource for future policy fights. Political support for a policy may depend on actors’ experiences with previous policies and their perceived relationship to the policy in question (Weir, 1989). “Going down fighting” may be a particularly effective strategy in building awareness and power for future fights. In interviews with mobilizing organizations like the Sierra Club, Han (2014) finds that repeated engagement through a mix of online and in-person organizing can transform participants’ motivations and capacities for involvement. By building the capacities and motivations of their members and

supporters, organizations increase their own capacity for future policy fights. For example, if one administration makes a policy that a large segment of the public can be mobilized to oppose, it may help organizations put the repeal of that policy on the agenda of the next administration.

Second, mobilizing in one policy fight helps organizations build a reputation among policymakers. A reputation for organizing public pressure campaigns may create an implicit credible threat that the organization may expand the scope of conflict. Organizations that mobilize members and create a long-lasting presence in Washington become, in the minds of policymakers and reporters, the taken-for-granted surrogates for these public groups (Grossmann, 2012).

While more performative or power-building campaigns may engage many people, they are unlikely to inspire countermobilization. To the extent that public interest organizations mobilize for reasons other than influencing policy, opposing private interest groups with less public support have little reason to countermobilize. The reverse is not true. Private interest groups ought to only launch campaigns when the policy is in play. In these cases, public interest groups also have incentives to mobilize. Thus, member-funded public interest groups should be more common than campaigns sponsored by narrow private interests, simply because they have more occasions in which mobilizing has benefits. Campaigns sponsored by narrow private interests should occur in opposition to another campaign, but public interest groups have reasons to launch a campaign even when policy is unlikely to move.

Put differently, broader (often public) interest groups often have incentives to mobilize *proactively* when policy could be affected by expanding the scope of conflict. Where the policy is not in play, they may still benefit from credit claiming or going down fighting. Therefore public interest groups will often want to mobilize. In contrast, narrow (often private) interest groups do not benefit from expanding the

scope of conflict and should thus only mobilize pressure campaigns *reactively*. Nor do they have audiences like members and donors that create performative reasons for mobilizing a pressure campaign.

In many cases, going public as a lobbying strategy is simultaneously an opportunity to engage and recruit members. Organizations often go public in order to influence policy and engage in power-building tactics at the same time. For example, the Sierra Club organized several “Thank you, EPA” campaigns, asking supporters to thank the Obama EPA for new draft environmental policies and urge the agency not to back down. These campaigns simultaneously (1) engaged members, (2) implied that the Sierra Club had advanced its policy agenda (implicit credit claiming), and (3) pressured policymakers to hold their course or strengthen policy rather than bend to industry pressures.

The extent to which a campaign genuinely aims to influence policy or is pursuing other logics may be difficult to distinguish in the observed public response. Indeed, multiple motivations may drive most campaigns, and members of the public may poorly understand the different chances of success in each case. However, lobbying organizations likely know their chances of success and should thus invest less in providing technical information when they see little opportunity to affect policy. By identifying cases where coalitions engage in large public campaigns without corresponding investment in technical information, we may be able to assess whether countermobilization is indeed less likely in these cases.

2.2.5 Hypotheses About the Drivers of Mass Mobilization

The observable implications of the theory described above suggest several testable hypotheses.

First, public comments will differ in several ways depending on whether most

public participation is individuals acting alone or organized and mediated through organizations their pressure campaigns. The solicitation on regulations.gov—“Let your voice be heard”—suggests that individuals are expressing themselves directly. Indeed, anyone can write a letter or type a comment in the text box on regulations.gov, and many people do. Individuals acting on their own submit content ranging from obscenities and memes to detailed personal accounts of how a policy would affect them and even poetry aimed at changing officials’ hearts and minds. Comments submitted by individuals acting alone should not have a large share of text copied from elsewhere. They should not reference an organization or be mailed or uploaded in bulk by an organization.

In contrast, to the extent that participation is mediated through public pressure campaigns, as my theory suggests, public commenting should show signs of “cooperative activity.” Comments from people who were mobilized as part of a campaign differ from those of individuals acting on their own in two observable ways: First, they often mention the name of the organization that mobilized them. Second, the text is often similar or identical to other comments in the campaign, reflecting coordination through form or template letters. These features eliminate the novel informational value that Cuéllar (2005) and others seek to locate in individual comments. If comments reference an organization that mobilized them, they likely have little more to offer than what the more sophisticated organization has already provided. If comments are identical, they certainly provide no new technical information.

While observers frequently talk about ordinary people engaging in policymaking as individuals, political science theory suggests that an organized group will almost always mediate the participation of individuals who are not professional policy influencers. Political science has shown that national politics in the United States is

the terrain of organized groups. Given the technocratic nature of bureaucratic policymaking, “citizen-initiated contacts” should be especially rare.

Hypothesis 2.1. Most people engage in national policy processes as a result of organized public pressure campaigns.

From a behavioral perspective, Hypothesis 2.1 posits that individuals are more likely to engage in behaviors like letter-writing and petition-signing as part of coordinated and cooperative activity. The barriers to individual participation make “citizen-initiated contacts” on matters of national policy relatively rare. Organized campaigns overcome these barriers by informing, motivating, and reducing the costs of participation.

Second, I argue that public pressure tactics complement rather than substitute for sophisticated technical lobbying. Whereas previous studies compare mass comment campaigns to technical lobbying efforts, I argue that the relevant unit of analysis is the lobbying coalition. Coalitions may use both sophisticated technical lobbying and public pressure tactics.

Hypothesis 2.2. Public pressure campaigns are organized by *coalitions* that include groups that engage in sophisticated technical lobbying.

From a behavioral perspective, Hypothesis 2.2 posits that decisionmakers in lobbying organizations do not confront a choice of whether to pursue an inside or outside strategy; it is a choice between an inside strategy (the norm) or *both* an inside and outside strategy because public pressure campaigns lend political support to more sophisticated legal and technical arguments for specific policy changes.

Testing Hypothesis 2.2 requires that we group organizations into lobbying coalitions. It predicts that coalitions that use public pressure campaigns also include

groups that engage in sophisticated lobbying. To the extent that coalitions using outside strategies do not also use inside strategies would be evidence against Hypothesis 2.2.

Third, while lobbying coalitions may form around various material and ideological conflicts, public interest groups are more likely to be advantaged by going public, credit claiming, or going down fighting, because they are organizations primarily serving a broad idea of the public good rather than the narrow material interests of their members. Indeed, Potter (2017a) finds that advocacy group-driven campaigns mobilize far more people on average than industry-driven campaigns on EPA rules.

Building on Lowi (1969) and Wilson (1989), I theorize that mass mobilization is more likely to occur in conflicts of public versus private interests or public versus public interests (i.e., between coalitions led by groups with distinct cultural ideals or desired public goods), provided they have sufficient resources to run a campaign. If true, one implication is that mass mobilization will systematically run counter to concentrated business interests where they conflict with the values of public interest groups with sufficient resources to mobilize.

When policy conflicts pit broad public interests against narrower private interests, the public interest groups more often have incentives to launch public pressure campaigns, both for policy and organizational reasons. Because outside lobbying can alter the decision environment, those who have the advantage in the usual rulemaking process (where a more limited set of actors participate) have little incentive to expand the scope of the conflict. Additionally, I argue, public interest groups have greater incentives than businesses to launch public pressure campaigns for reasons other than influencing policy. Both policy and non-policy reasons to launch a campaign suggest that public interest groups will use outside strategies more often.

Hypothesis 2.3. Public interest group coalitions sponsor public pressure campaigns *more often* than private interest group (e.g., business-led) coalitions.

Hypothesis 2.3 may be evaluated in absolute terms—whether most public pressure campaigns are launched by public interest groups—or relative terms—whether public interest groups are more likely to use public pressure campaigns when they lobby than private interests are.

The inverse could also be true. Business groups that are already advantaged in the policy process may leverage their superior resources to further mobilize support or bolster claims that they represent more than their private interest. If mobilization most often takes this form, this would be evidence against Hypothesis 2.3 and Schattschneider’s argument that it is the disadvantaged who seek to expand the scope of the conflict.

Fifth, if the success of a mobilization effort is moderated by latent public support, as my theory asserts, broader public interest group coalitions ought to mobilize more people for a given level of mobilization effort (e.g., spending or solicitations). That is, the scale and the intensity of public engagement depend on preexisting support for the proposition that people are being asked to support, and public interest groups more often have broad public support than narrow private interests.

Hypothesis 2.4. Public interest group coalitions have a larger response to their mobilizing efforts than private interest group (e.g., business-led) coalitions.

From a behavioral perspective, Hypothesis 2.4 suggests that the average person is more easily mobilized to sign a form letter from a public interest group than a private interest group.

Notwithstanding the incentive structure that should lead coalitions advancing broad public interests to mobilize public support more often and more successfully

than narrow private interests, resources and capacity are still necessary conditions to run a campaign. Most organizations that are disadvantaged in the policy process also lack resources to launch mass mobilization campaigns. This means that public pressure tactics are only an option for a small subset of large public interest organizations.

Mobilizing people for a particular policy fight requires a significant organizing capacity. McNutt and Boland (2007) calls these formations “policy change organizations.” In contrast to membership organizations, they exist more to organize public pressure toward a set of policy goals than to serve a defined membership.

Hypothesis 2.5. Public pressure campaigns targeting national policy are most often run by large national policy advocacy organizations.

If instead, lay commenters are mobilized through their membership organizations, as Kerwin and Furlong (2011) suggest, a large campaign of, say, one million people would generally require a large collection of membership organizations. Very few organizations have a million members. Those that do are unlikely to mobilize all of them, so mobilizing many people through membership organizations would likely require a large coalition of membership organizations. We would expect commenters to identify themselves as members of these many organizations.

Finally, if the theory of conflict expansion posited by Schattschneider (1975) is correct, narrow private interests only have incentives to mobilize public support to counteract an opposing campaign. If private interest groups like businesses primarily use public pressure campaigns *reactively* to counter a message of public consensus advanced by an opposing lobbying coalition, we should rarely see private interest groups lobbying unopposed.

Hypothesis 2.6. If narrow private interest groups (e.g., businesses) launch public pressure campaigns, it is a response to an opposing campaign.

Hypothesis 2.6 would be supported by evidence that public interest group coalitions more often lobby unopposed than private interest groups.

The next section outlines the data and methods I use to evaluate these hypotheses.

2.3 Testing the Theory

To assess my theory about which groups should mobilize public participation in bureaucratic policymaking, I use public comments in federal agency rulemaking. However, my theories and methods should also apply to other kinds of political engagement, such as through social media or protests and other political decisions, including state-level rulemaking.

2.3.1 Data

I collected a corpus of over 80 million public comments via the regulations.gov API. 58 million of these comments are on rulemaking dockets. I then linked these comments to other data on the rules from the Unified Agenda and Office of Information and Regulatory Affairs Reports. Summary statistics for these data are available in the Appendix.

From 2005 to 2020, agencies posted 44,774 rulemaking dockets to regulations.gov and solicited public comments on 42,426. Only 816 of these rulemaking dockets were targeted by one or more public pressure campaigns, but this small share of rules garnered 99.07 percent (57,837,674) of all comments. Nearly all of these comments are form letters. The top 10 rulemaking dockets account for 33.74 percent

(19,695,536), of all comments in agency rulemaking. Again, nearly all of these are form letters.

Table 2.1 shows the rules that received the most comments on regulations.gov. Proposed rules that have attracted the most public attention have been published by the Environmental Protection Agency (EPA), the Department of Interior (DOI), the Bureau of Ocean Energy Management (BOEM), the Consumer Financial Protection Bureau (CFPB), and Fish and Wildlife Service (FWS). The most commented-on rule was the 2013 “Clean Power Plan”—the Obama administration’s flagship climate policy.

Figure 2.5 shows a massive rise in the number of proposed rules targeted by public pressure campaigns (the bottom panel), greater than the overall increase in the number of proposed rules posted for comment on regulations.gov (the top panel). To some extent, the increase from 2005 to 2010 results from agencies using regulations.gov more systematically in the years after its launch in 2003. But the ease of online organizing has also increased the frequency of public pressure campaigns. As mentioned earlier, less than 5 percent of proposed rules each year are targeted by a pressure campaign (note the necessary difference in the y-axes). However, this share is growing.

Figure 2.6 shows the handful of agencies that publish the majority of proposed rules for public comment on regulations.gov (out of the 246 federal agencies that use regulations.gov). For the most part, these are also the agencies most often targeted by public pressure campaigns, but some agencies are relatively more or less likely to be targeted than others. For example, the U.S. Fish and Wildlife Service publishes a small share of rules overall but a large share of rules targeted by public pressure campaigns (many protecting threatened and endangered species habitat). In contrast, the U.S. Coast Guard and Federal Aviation Administration both pub-

Table 2.1: Rulemaking Dockets by Number of Public Comments, 2005-2020

Docket ID	Docket Title	Total Comments
EPA-HQ-OAR-2013-0602	Standards of Performance for Greenhouse Gas Emissions from Existing Sources: Electric Utility Generating Units	4,383,713
EPA-HQ-OAR-2011-0660	Greenhouse Gas New Source Performance Standard for Electric Generating Units	2,683,228
EPA-HQ-OAR-2013-0495	Review of Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating ...	2,178,478
EPA-HQ-OAR-2017-0355	Repeal of Carbon Dioxide Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Emission Guidelines for Greenhouse Ga...	1,853,582
EPA-HQ-OAR-2010-0505	Oil and Natural Gas Sector – New Source Performance Standards, National Emission Standards for Hazardous Air Pollutants, and Control Techniques Guide...	1,761,990
FWS-HQ-ES-2013-0073	Removing the Gray Wolf from the List of Endangered and Threatened Wildlife and Maintaining Protections for the Mexican Wolf by Listing It as Endangere...	1,611,111
CFPB-2016-0025	Payday, Vehicle, Title and Certain High-Cost Installment Loans	1,413,787
BLM-2013-0002	Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands	1,348,563
FWS-HQ-IA-2013-0091	Revision of the Special Rule for the African Elephant	1,315,513
CEQ-2019-0003	Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act	1,145,571

lish a large number of rules (mostly regulating transportation safety), but pressure campaigns rarely target these agencies.

Figure 2.5: Proposed Rules Open for Comment on Regulations.gov 2005-2020

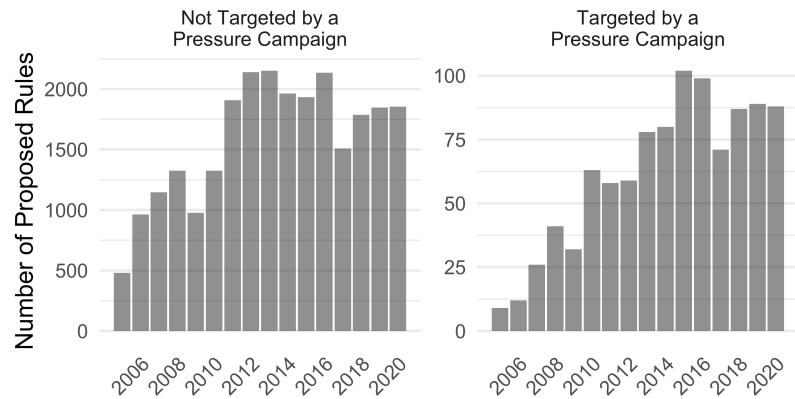
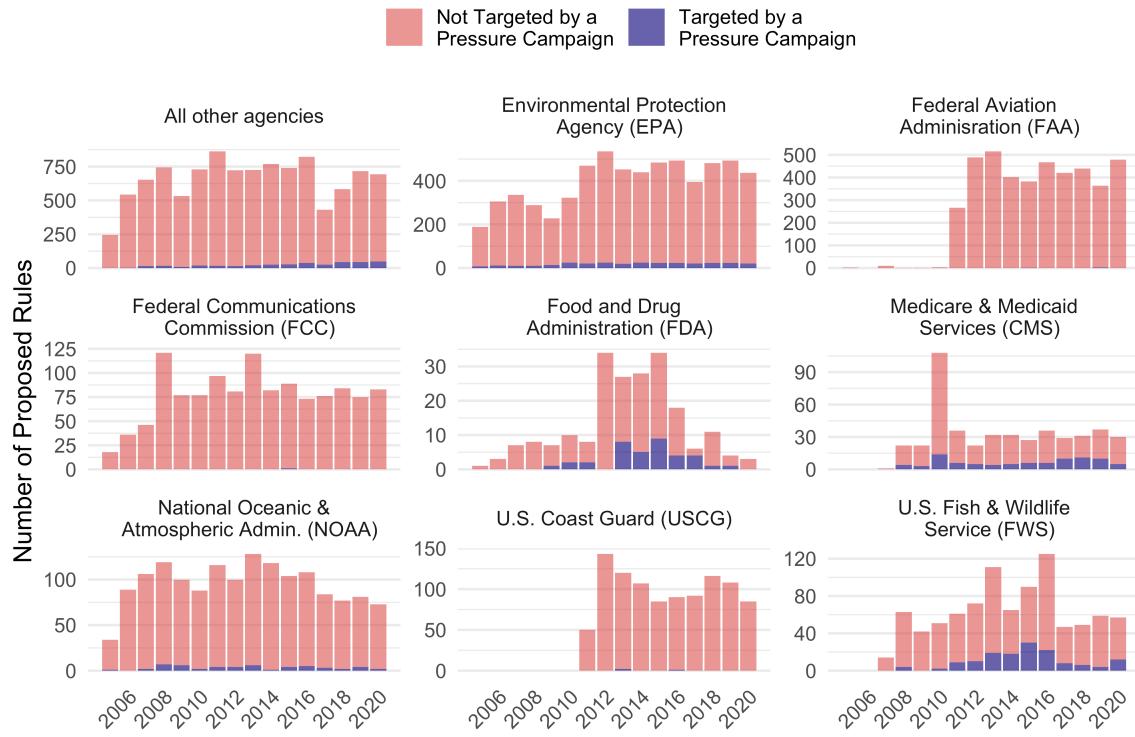


Figure 2.7 shows the total number of public comments received per rule from 2005-2020. This plot shows an increase in the number of rules receiving a large number of comments from 2005 to 2020. Note that comments per rule (the y-axis) are on a logarithmic scale in order to see this variation. While most rules receive few comments, there is a steep rise in the number of rules receiving over a thousand from 2005 to the mid-2010s. We see this same trend for the number of proposed rules receiving over 100 thousand comments, peaking around the time that the Obama EPA's Clean Power Plan (the administration's landmark climate change policy, rulemaking docket EPA-HQ-OAR-2013-0602) received over 4 million comments (highlighted in Figures 2.7 and Figure 2.8). Each year since then, hundreds of rules received over a thousand comments, and dozens received over 100 thousand comments.

While the average number of comments per rule is consistently around ten, more people are involved in more policy processes today than a decade ago. Occasion-

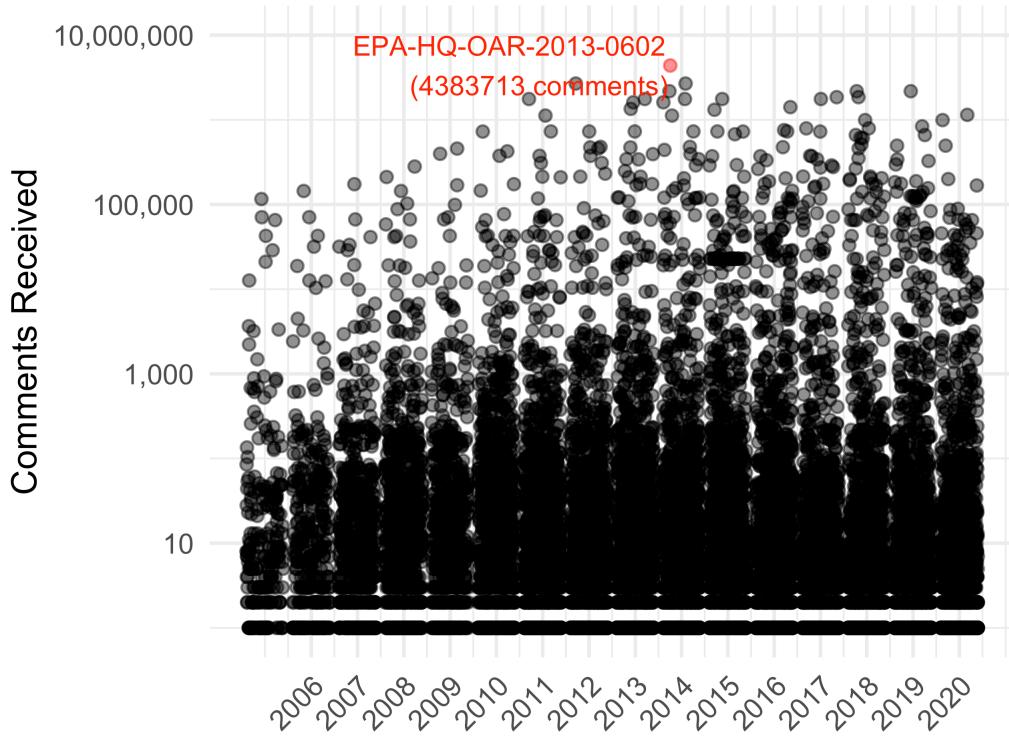
Figure 2.6: Proposed Rules Open for Comment on Regulations.gov 2005-2020 by Agency



ally, a large number of people are engaging in agency policymaking. It is not a coincidence that more people are engaging in a select set of policies as pressure campaigns target more agency rules (though still a small portion).

Figure 2.8 clearly shows the inequality in public participation across rulemakings. Of over 25 thousand proposed rules open for comment on regulations.gov between 2005 and 2020, Figure 2.8 shows that over a third of them received no comments. These rules appear as a long line of points at the bottom of the plot. Approximately another third received ten or fewer comments, including the U.S. Department of Agriculture's Agriculture Management Services rule regulation the labeling of honey (AMS-FV-07-0008). As in Figure 2.8, I also labeled the Clean

Figure 2.7: Number of Comments (log scale) per Proposed Rule 2005-2020

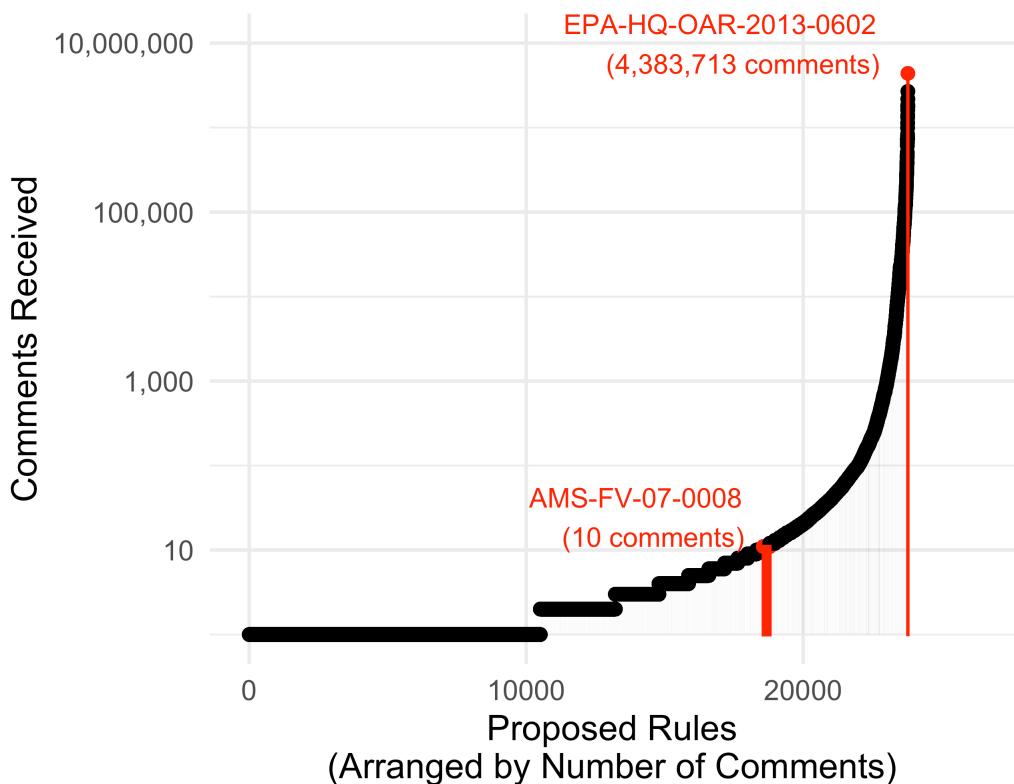


Power Plan rule. A version of Figure 2.7 split out by year is available in the appendix (Figure D.1).

2.3.1.1 Policy Advocacy Organizations: From Grassroots to Astroturf

Testing my hypotheses requires that I classify campaigns as driven primarily by public or private interest groups. This is a challenge because appeals to the government are almost always couched in the language of public interest, even when true motivations are private (Schattschneider, 1975). Public pressure campaigns are no exception, and mobilizing organizations almost always evoke some version of the public interest. Classifying thus involves judgment calls. I describe my classification methods in Section 2.3.2.3. To provide empirical context, this subsection

Figure 2.8: Number of Comments (log scale) per Proposed Rule 2005-2020



sketches out the range of public and private campaigns with some concrete examples of “public” pressure campaigns that primarily advance private interests.

There is a spectrum of organizing the unorganized from more “grassroots” to more “astroturf” strategies. On the grassroots end, engagement is driven by a combination of passionate volunteerism and a supportive, attentive segment of the public. In practice, most campaigns on the grassroots end of the spectrum in federal rulemaking are not pure volunteerism but are organized by policy advocacy organizations like MoveOn and Organizing For America on the political left and Americans for Prosperity and the National Association For Gun Rights on the political right. These organizations have large mailing lists and media operations, providing the capacity to mobilize large numbers of people for a particular policy fight. Both

public and private interest groups pay for mobilizing services and software. Some providers are nonprofits (e.g., Care2); others are for-profit lobbying and campaign consultants (e.g., Nationbuilder, SoftEdge, Mandate Media). Most of these services have strong partisan ties, as is generally the case with lobbying firms (Furnas, Heaney and LaPira, 2017). Membership organizations like the Sierra Club often mobilize “members and supporters” beyond their official membership base, thereby taking the form of a policy advocacy organization, as well.

Like people mobilized through their membership organizations, people mobilized by policy advocacy organizations will often cite the mobilizing organization. Unlike those mobilized through membership organizations, mobilization by policy advocacy organizations is more likely to be concentrated in a few large organizations with the specific resources for running campaigns that engage passionate or interested but unaffiliated or loosely affiliated segments of the public.

Toward the astroturf end of the spectrum, well-funded efforts gather signatures from a much less passionate and attentive population. Where grassroots organizing relies on existing underlying interests that merely have to be given an opportunity to engage, people engaged by astroturf campaigns are generally disinterested in the policy and engage merely because of paid ads or petition-gathering, often involving some deception (e.g., they are intentionally misled about the policy or its likely effects) to get people to take action on an issue that they would not take if the issue were presented more clearly. Likewise, the organizations collecting the signatures would have no interest in doing so if they were not paid. The aim is to give an appearance of support. To the extent they mobilize real people, astroturf campaigns are thus a form of outside lobbying intended to create a deceptive appearance of public support. In the extreme, astroturf campaigns may use the names of fake or non-consenting individuals.

For example, in 2016, the Bureau of Ocean Energy Management received several USB drives with hundreds of thousands of comments on its National Outer Continental Shelf Oil and Gas Leasing Program from Joe Jansen. Jansen did not disclose who he worked for, but the form letters, each identical except for the signature, resembled press releases from the American Petroleum Institute (API), the main industry association for oil and gas companies. According to a LinkedIn profile and Congressional Directory, Jansen began a career in Government Relations after serving as the legislative director for a Republican member of Congress. Unlike more “grassroots” campaigns, no information was provided about who the signatories were or why they cared about oil and gas leasing. Joe Jansen, however, was also associated with other campaigns targeting the EPA and Department of State, several of which identified themselves as organized by the groups “Energy Citizens” and “Energy Nation.” These organizations’ websites are paid for by the American Petroleum Institute. The photos they post on social media almost exclusively show employees handing out shirts, hats, and water at fairs, bars, and conferences in exchange for signatures (EnergyCitizens, 2014). Though Energy Citizens and Energy Nation submitted slightly different comments as separate organizations, most of the individual signatories were the same on both sets of comments, and many signatures were submitted twice by each organization, successfully inflating the number of pro-API comments that the agency reported receiving on the rule. Energy Citizens has attracted media attention for bussing in paid actors to protests and town halls to oppose regulations (Krauss and Mouwad, 2009), paying actors to pose as concerned citizens, and skirting Facebook’s policy against deceptive advertising (Merrill, 2018).

In a more complex example, Axcess Financial and other payday lending companies sponsored several campaigns targeting a regulation proposed by the Consumer

Financial Protection Bureau in 2016. First, Axcess Financial had storefront employees solicit comments from customers, which Axcess then uploaded to regulations.gov. The customer comments suggest that they had not been told much about the rule, which limited interest rates, fees, and the number of times short-term loans could be compounded. Most customers wrote some version of “Do not close this store” or “I have been told that payday loans would not exist in my community if the government’s proposed regulations went into effect.” A few even complained about exactly the issues that CFPB’s regulation aimed to address. One customer wrote, “Although some of the fees are a bit high, it should be my choice whether to get a loan or not” (Access Financial Comment 91130). Another wrote, “I need to keep receiving my Check’n’Go loans so I can have the time to start paying them back in the next 1 1/2 to 2 years” (Axcess Financial Comment 91130), indicating that Check’n’Go (a subsidiary of Axcess Financial) was engaged in serial re-lending (repeatedly issuing short-term high-interest loans to pay interest and fees on previous loans of the same type) that put this customer deeper in debt. In their own comments, Axcess claimed that it did not do this kind of serial re-lending. To the extent that this campaign relied on deception and not the customers’ genuine interests (even as the customers understood them), this would count as astroturf.

Second, Axcess sponsored an effort to gather signatures at churches. Finally, Axcess and other payday loan companies uploaded supportive notes from community organizations to which they had given money. It is unlikely that members of these organizations would have commented had they not been paid by Axcess.

As the American Petroleum Institute and Axcess Financial examples demonstrate, spotting astroturf in the wild can be difficult by design and involve complex judgment calls about the level of deception involved. However, the clear observable result is often a large number of comments advocating on behalf of narrow private

interests. Large businesses or industry associations are the organizations with the resources and incentives to sponsor astroturf campaigns, and they do (Lyon and Maxwell, 2004).

Not all campaigns on behalf of private interests fall decisively on the astroturf side of the spectrum. In a cover letter to a batch of comments opposing the regulation of glyphosate herbicides, Monsanto, a major glyphosate manufacturer, described how they collected the letters:

These letters were collected during the 2016 Farm Progress Show from U.S. farmers, agriculture professionals, and general consumers who use glyphosate and value its benefits. We think it is important that these voices be heard as part of EPA's review of glyphosate. (EPA-HQ-OPP-2009-0361-0891)

Monsanto may have, like Energy Citizens, given out hats and shirts in exchange for many of these signers. Still, the context and transparency make it more plausible that the petition signers genuinely opposed regulation on glyphosate. Thus, I do not code this as astroturf. Similarly, Shell Oil sponsored a campaign to open the Arctic Outer Continental Shelf to oil and gas drilling and provided a template letter with a place to insert a company or group:

On behalf of [enter company or constituents], I am writing to demonstrate my strong support of oil and gas development in the Arctic Outer Continental Shelf (OCS)...I support Shell's plan to explore its leases in the Chukchi Sea in 2015. The company has invested significant time and resources in the advancement of safe and prudent Arctic exploration. Shell should be allowed to realize the promise of the leases it purchased, and I encourage the BOEM to expeditiously approve its Exploration Plan. (BSEE-2013-0011-0033)⁷

⁷Some of Shell's supporters neglected to fill in the blanks in the template letter (BSEE-2013-0011-0033).

Though Shell stood to profit from the rule, the signers of this form letter were mostly companies and workers in the oil and gas sector. Several elected officials also used Shell's form letter (e.g., BSEE-2013-0011-0033 and BSEE-2013-0011-0094). I found no evidence of deception or payments from Shell. These companies, workers, and politicians plausibly had a genuine interest in Shell's access to offshore oil. The form letter's transparency about who stood to benefit further increases the plausibility that signers genuinely supported Shell's lobbying effort. Again, this means that it was not coded as astroturf.

2.3.2 Methods: Measuring Public Pressure and Political Information

In this section, I develop methods to identify public pressure campaigns and measure the kinds of political information they create. These measures capture similar statistics to questions posed by Verba and Nie (1987, p. 9): "How much participation is there, what kind is it, and from what segments of society does it come?" Specifically, I assess the extent to which public comments are mobilized by pressure campaigns, which organizations are behind these campaigns, which campaigns are more successful in mobilizing, and which campaigns go unopposed.

2.3.2.1 Identifying Organizations and Coalitions using Text Reuse

The primary unit of analysis is a lobbying coalition—a group of organizations advocating for the same policy changes in their comments on a draft rule. Advocacy organizations work together on campaigns. For example, Save our Environment submitted both sophisticated comments and collected signatures from hundreds of thousands of people on several rulemaking dockets. Save our Environment is a small nonprofit with a simple WordPress website almost entirely dedicated to mobilizing public comments. It is run by The Partnership Project, a coalition of 20 of

the largest environmental advocacy organizations in the United States, including the Sierra Club, Natural Resources Defense Council, Greenpeace, and the World Wildlife Fund, with the aim of “harnessing the power of the internet to increase public awareness and activism on today’s most important environmental issues” (Saveourenvironment.org, 2021). Several Partnership Project members, including the Sierra Club, EarthJustice, and NRDC, also submitted technical comments and mobilized hundreds of thousands of their own supporters to comment separately on the same rules. These lobbying and mobilizing activities are not independent campaigns. These organizations and the people they mobilize are a coalition.

To mobilize broader support, advocacy organizations often engage smaller organizations, which, in turn, mobilize their own members and supporters, often with logistical support and funding from the larger national organization. For example, for the same campaign where the Gulf Restoration Network mobilized hundreds of restaurants that serve sustainable seafood, one of their larger coalition partners, the Pew Charitable Trusts, mobilized thousands of individuals, including members of the New York Underwater Photography Society. These smaller organizations did not identify themselves as part of Pew’s campaign, but their letters used almost identical language.

Identifying which people and organizations belong to which coalition is thus a crucial first task for any study of public pressure campaigns. To identify whether a pressure campaign mobilizes a given comment, I use several strategies. I first use textual similarity to identify clusters of similar comments, reflecting formal and informal coalitions. Comments with identical text indicate a coordinated campaign.

To link individual comments and public pressure campaigns to the more sophisticated lobbying efforts that they support (if any), I identify the lobbying coalition(s) (if any) to which each comment belongs. Some individual commenters and organiza-

tions are unaffiliated with a broader lobbying coalition, but, as I show below, most people and organizations lobby in broader coalitions.

Importantly, even campaigns that achieve very low public response rates appear in these data. Because campaigns aim to collect many thousands of comments, it is implausible that even the most unpopular position would achieve no supportive responses. For example, Potter (2017a) found Poultry Producers averaging only 319 comments per campaign. While this is far from the Sierra Club’s average of 17,325 comments per campaign, it is also far from zero. (These numbers are from Potter’s sample of EPA rules; the Sierra Club’s average is even larger in my sample; see Table 2.2.)

For each comment on a rulemaking docket, I identify the percent of words it shares with other comments using a 10-word (or “10-gram”) moving window function, looping over each possible pair of texts to identify matches.⁸ When actors sign onto the same comment, it is clear that they are lobbying together. However, various businesses, advocacy groups, and citizens often comment separately, even when they are aligned. Text-reuse (using the same ten-word phrases) captures this alignment. When individuals use identical wording, I interpret that to mean they’re endorsing the same policy position as part of a lobbying coalition.

Figure 2.9 shows the percent of shared text for a sample of 50 comments on the Consumer Financial Protection Bureau’s 2016 Rule regulating Payday Loans. Comments are arranged by the document identifier assigned by regulations.gov on both axes. The black on the diagonal indicates that each document has a perfect overlap with itself. Black squares off the diagonal indicate additional pairs of identical documents. For example, 100 percent of the words from Comment 95976 are

⁸For more about n-gram window functions and comparisons with related partial matching methods such as the Smith-Waterman algorithm, see Casas, Denny and Wilkerson (2019) and Judge-Lord (2017).

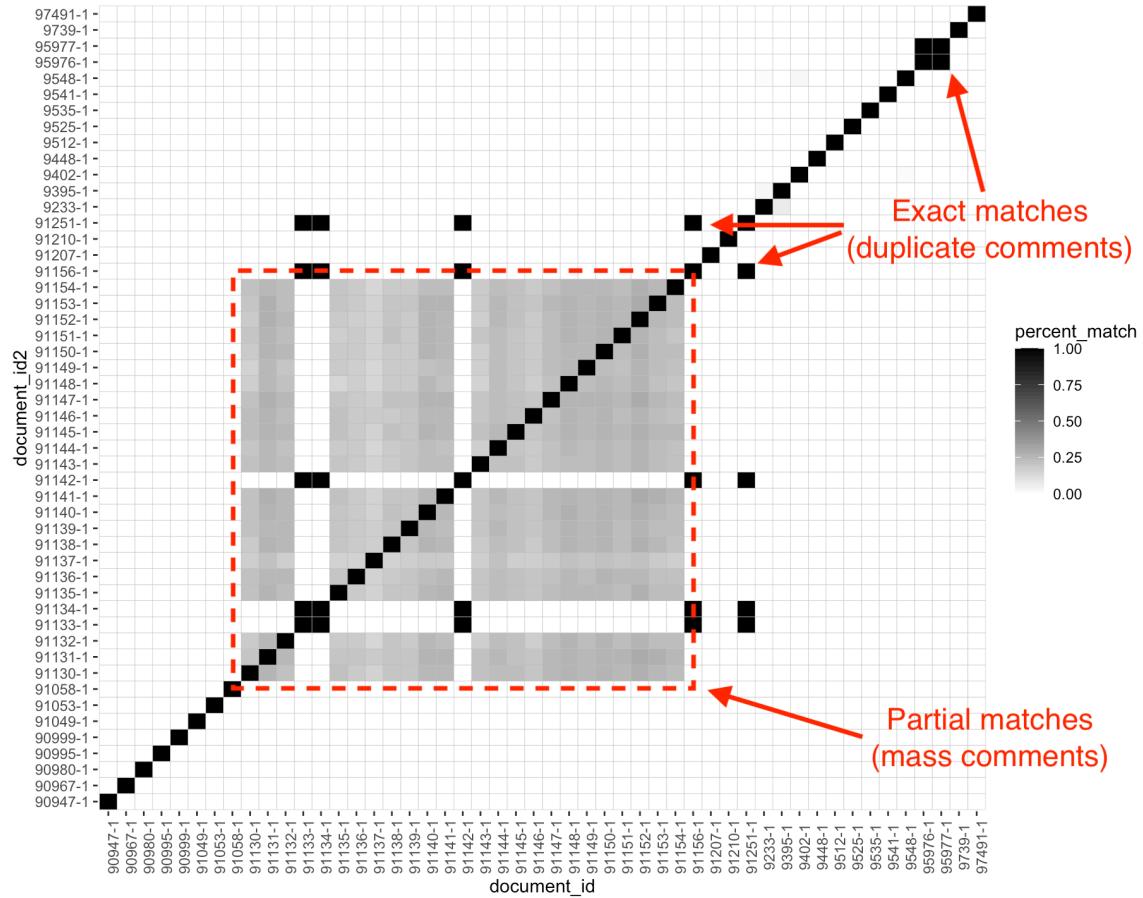
part of some tengram that also appears in 95977 because the exact same comment was uploaded twice. The cluster of grey tiles indicates a coalition of commenters using some identical text. Comments 91130 through 91156 are all partial or exact matches. All are part of a mass comment campaign by Access Financial. The percent of the identical text is lower than many mass-comment campaigns because these are hand-written comments, but the n-gram method still picks up overlap in the OCRed text in the header and footer. Tengrams that appear in 100 or more comments indicate a mass comment campaign. Some agencies use similar “de-duping” software (Rinfret et al., 2021) and only provide a representative sample comment. In these cases, my linking method assumes that the example comment is representative, and I link these comments to others based on the text of the sample comment provided.

Where a new presidential administration solicited comments on a proposed rule tied to a docket number that a previous administration also used to solicit comments on a different previous rule, I count these as separate rulemaking dockets. I do so because the second policy is usually reversing or going in the opposite direction as the policy on which the previous administration solicited comments. Many of the same organizations comment but with the opposite positions; support becomes opposition and vice versa.

2.3.2.2 Hand-coded Organizations and Coalitions

Second, I hand-code several samples of comments. One sample contains at least one comment from each cluster (coalition) of 100 or more similar comments. This census of form-letter comments allows me to make valid observations about public pressure campaigns across agencies and over time. A second sample includes nearly all comments on a random sample of rules. A third sample includes nearly all com-

Figure 2.9: Example: Identifying Coalitions by the Percent of Matching Text in a Sample of Public Comments



ments on another random sample of rules, weighted by the number of comments they received. These last two samples allow me to make inferences about lobbying coalitions that do and do not use public pressure campaigns.

Through an iterative process of hand-coding and computational methods, I then identify the organization that is submitting or is responsible for mobilizing each comment (if any) in all three samples of comments. This process involves using regular expressions to search comment texts and metadata for possible names. With a team of research assistants, I inspect a sample and link it or add it to a growing list of organizations known to comment. This corpus of known organizations is then

included in the next text search.

With this approach, I identify the organizations responsible for over 40 million comments, including all organizations responsible for mobilizing 100 or more comments with repeated text—either identical text or partially unique texts that contain shared language.

2.3.2.3 Classifying Public and Private Interests

In addition to classifying all organizations that appear in the hand-coded samples as businesses, industry associations, other nonprofits, governments, or individual elected officials and a range of subtypes within these broader categories, I also classify the coalitions in which they lobby.

Classifying coalitions as primarily driven by private or public interest provides analytic leverage, but scholars have not converged on an approach to do so. Potter (2017a) distinguishes “advocacy groups” from “industry groups.” Berry (1999) calls these groups “citizen groups” and emphasizes conflict over cultural issues. Some public interest groups focus on conservative or progressive cultural issues, like religious education, immigration, or endangered species. Others are more focused on the public provision or protection of public goods such as national parks, consumer product safety standards, air quality, drinking water, and public safety. Types of membership organizations that are both broad and focused on material outcomes for their members (such as labor unions) are especially difficult to classify. Potter (2017a) puts unions in the “Industry” category. I take a different approach based on the coalition with whom such groups lobby. If a union lobbies alongside businesses, I classify this as a private interest-driven coalition (Mildenberger, 2020). If a union lobbies with public interest groups on public health or safety issues, I classify this as a public interest group coalition.

I code each coalition as primarily advancing an idea of the public interest or more narrow private interests. Public interest coalitions are almost always entirely non-profits and governments, and private interest coalitions tend to be companies and industry associations. Still, some nonprofits lobby on behalf of companies, and some companies join forces with public interest groups. These can create “hard” cases. For example, a coalition of environmental groups mobilized recreational fishing businesses and sustainable seafood restaurants to help push for stricter commercial fishing regulations. We know that the environmental groups mobilized the restaurants because they used a form letter from a nonprofit called the Gulf Restoration Network (NOAA-NMFS-2012-0059-0185). This was coded as a public interest coalition. If instead, the businesses had led this lobbying effort and enlisted a few nonprofits to help protect their business interests, it would have been coded as a private interest coalition. The vast majority of coalitions were much more straightforward to code as public or private.

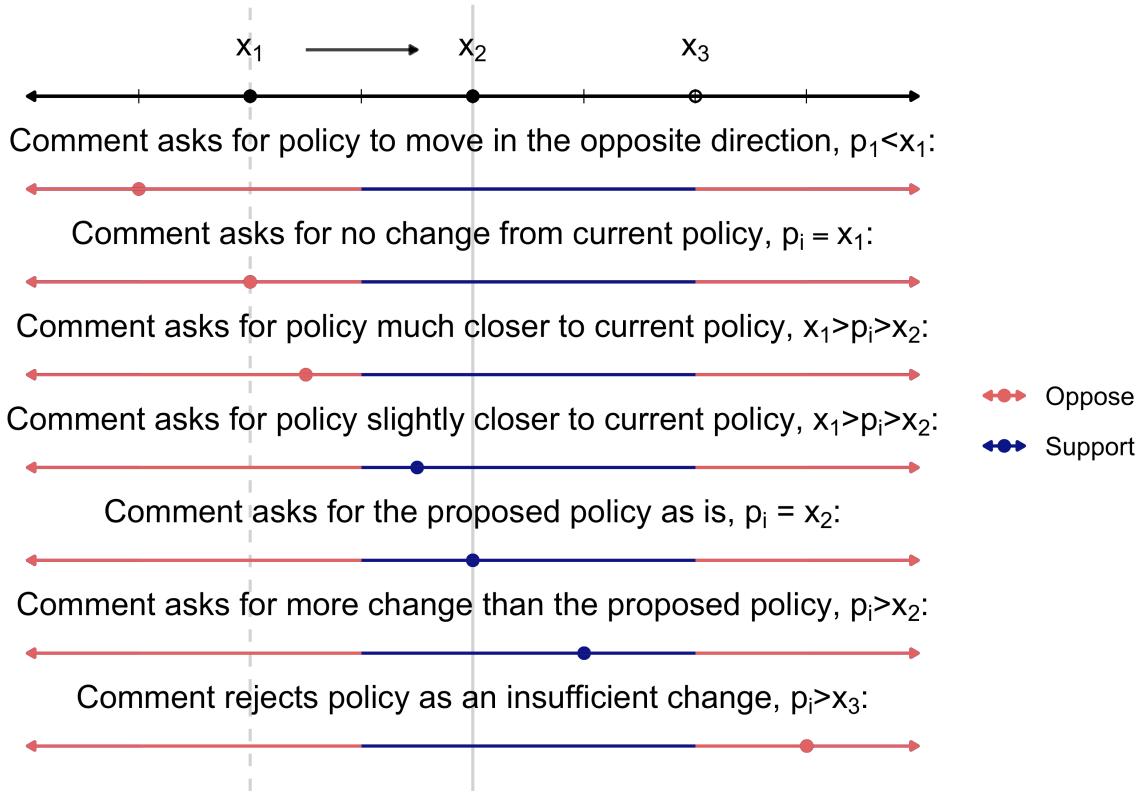
2.3.2.4 Coding Policy Positions

To assess whether organizations and their broader coalitions lobby unopposed or in opposition to other interests, I code the position of each organization on each proposed policy given the direction of change from the current policy. Specifically, I trained research assistants to place comments on a spatial scale relative to change between the status quo and proposed rule like the one shown in Figure 2.10. In Figure 2.10, x_1 is the current (status quo) policy and x_2 is the new proposed policy on which commenters are commenting. Let p_i be commenter i ’s ideal policy. In Appendix C, I formalize intuitions about why a commenter may comment and how it may influence a policymaker. Here, I merely aim to clarify the coding of policy support and opposition, which relies on the spatial coding of each comment (for more

details, see the Codebook in Appendix A).

Figure 2.10: Coding the Spatial Position of Comments on Proposed Policy Changes

Position of Commenter i (p_i) on Proposed Policy x_2 , Given Current Policy x_1



In spatial models, whether an organization supports or opposes a proposed policy change generally depends on whether the policy is moving closer or further from its ideal policy. For example, if the ideal point of commenter 1 is the current policy (i.e., $p_1 = x_1$) or close to it, they will oppose any proposed change. Likewise, if the ideal point of commenter 2 is the new proposed policy ($p_2 = x_2$) or closer to it, they likely support the proposal.

While potentially incompatible with an assumption of single-peaked preferences assumed by most models, commenters do occasionally oppose a policy change for moving insufficiently in their preferred direction (e.g., describing the proposal as “too little” or “insufficient” to gain their support). For example, if a commenter

prefers a more extreme change and will not accept anything less than a certain level of change ($p_i \geq x_3$), they may oppose x_2 as “insufficient.” This is likely a result of the repeated game nature of policymaking, where commenters believe that rejecting a small change in their preferred direction (x_2) now is likely to result in a more extreme and preferred change (x_3) later.

If a commenter made statements like “We need stronger, not weaker regulations” or “These regulations are already bad for our business, we should not make them even more strict,” they were coded as opposed to the proposed rule for moving in the wrong direction ($p_i < x_1$). If the commenter expressed a preference for the status quo over the proposed rule ($p_i = x_1$), they were also coded as opposing the proposed rule.

Conversely, when a comment included statements like “we applaud EPA’s efforts to regulate, but would prefer less severe limits,” this was coded as supporting the rule but asking for less change. If the commenter expressed unqualified support for the proposed rule ($p_i = x_2$) or requested even more policy change ($p_i > x_2$) they were almost always coded as supporting the rule.

Opposition to a proposed rule because it was insufficient to gain the organization’s support was rare but did occur. For example, one commenter stated that “[w]hile the proposed rule may improve current protections to some degree, it is utterly inadequate...If the agency fails to revise the rule to incorporate such measures, then they should withdraw the proposed rule completely” (NOAA-NMFS-2020-0031-0668). Taking the commenter at their word, this was coded as opposition to the proposed rule, even though the commenter’s spatial position is closer to the proposed rule than the current policy.

Having identified the coalition lobbying on each proposed rule and each organization’s position, I assign each coalition’s position as the position of the lead organiza-

tion. For robustness, I also calculate the coalition's average position as the average position of its members. Coalition members usually have nearly identical positions, but occasionally, some take more extreme positions than others. For example, while all coalition members may have the same policy demands, some may ask for additional changes. I consider diverging interests to be one coalition only if the asks are entirely compatible with the position of organizations that did not ask for them. Conflicting policy demands indicate different coalitions.

2.3.2.5 Differences with Prior Studies

This approach differs from previous studies of mass comment campaigns in at least two major ways. First, my methods allow me to identify coalitions consisting of multiple organizations. Previous studies measure mass comment campaigns at the organization level. For example, Balla et al. (2020) analyze “1,049 mass comment campaigns that occurred during 22 EPA rulemakings”—an average of nearly 50 “campaigns” per rule. By “campaign,” they mean an organization’s campaign rather than a coalition’s campaign. Especially on EPA rules, there are rarely more than two or three coalitions engaging in public pressure campaigns—one of the environmental advocacy groups and their allies, another of regulated industry groups and their allies, and, occasionally, a coalition of tribal governments primarily concerned with sovereignty issues. Often, only one coalition uses a public pressure campaign.

This is important because many comments nominally submitted or mobilized by a small business, nonprofit, or membership organization are part of a campaign sponsored by a larger coalition led by industry associations or public interest groups. It would be inaccurate to credit a small organization with little capacity for organizing a campaign when they merely allowed their name and mailing list

to be used by a larger group. For example, campaigns by industry associations are often officially submitted by much smaller nonprofit coalition partners. Using organizations as the unit of analysis means that observations are far from independent. An analysis that counts one coalition’s campaign as 40 smaller “campaigns” with the same policy demands would count this one campaign as 40 observations. My methods allow me to measure levels of public pressure per organization *and* per coalition.

The second major difference between my approach and previous research is that I do not compare sophisticated comments to mass comments. Rather, I *attribute* mass comments to organizations and coalitions that also submit sophisticated technical comments. By measuring comments per coalition, both through hand-coding and text reuse, I capture different levels of public pressure than we would see if we were to look only at comments per organization.

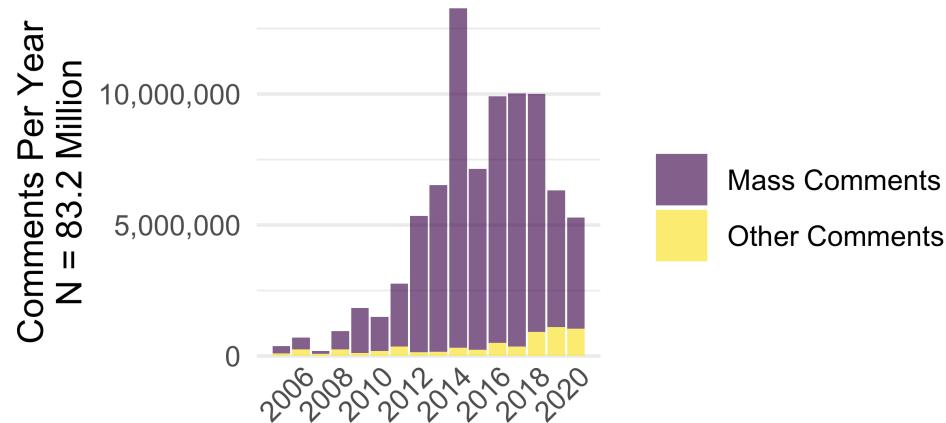
2.4 Results: Patterns of Public Engagement in Rulemaking

2.4.1 Most Comments Result from Public Pressure Campaigns

Hypothesis 2.1 posited that most people engage in the policy process due to organized public pressure campaigns. This is overwhelmingly true. Figure 2.11 plots the number of comments received on regulations.gov each year from 2005 to 2020. Columns are shaded by whether I have classified each comment as part of a public pressure campaign (a mass comment campaign). Figure 2.11 shows that every year since 2007, the vast majority of comments on draft regulations posted to regulations.gov were the result of a public pressure campaign. All other comments (including comments from individuals acting alone and sophisticated comments from companies, governments, and other organizations) make up a small portion of all

comments.

Figure 2.11: Public Comments, 2005-2020



Furthermore, the rise in the total number of comments from 2005 to 2013 is much steeper than the rise in the number of rules being published.

2.4.2 Most Comments and Campaigns are Mobilized by Public Interest Coalitions

Public pressure campaigns are almost exclusively organized by coalitions that include groups that engage in sophisticated technical lobbying. This supports Hypothesis 2.2. Table 2.2 shows the top organizers of comments posted to regulations.gov. In line with Hypothesis 2.3, nearly all of these top mobilizing organizations lobby together in public interest coalitions, especially on environmental issues. These coalitions include organizations that engage in sophisticated lobbying. Indeed, many of the most prolific organizers of public pressure campaigns also engage in sophisticated lobbying themselves. Public pressure is a compliment, not an alternative to sophisticated technical lobbying.

The top ten organizations (NRDC, Sierra Club, CREDO, Environmental Defense Fund, Center For Biological Diversity, Earthjustice, World Wildlife Fund, National Wildlife Federation, Friends Of The Earth, Environment America) mobilized 44 percent of comments on proposed rules posted to regulations.gov (25,947,612). All of these top ten organizations have lawyers on staff that engage in sophisticated lobbying, and all ten lobby together in the same coalitions. Nine are closely aligned environmental groups. Earthjustice began as the Sierra Club Legal Defense Fund. Eight of these nine organizations (all but the Center for Biological Diversity) are members of the Partnership Project, a 501c3 nonprofit founded by 20 leading environmental groups with the aim of " creating a sum of citizen participation and advocacy greater than they could generate acting apart" (Saveourenvironment.org, 2021). CREDO Action is a generic progressive group often mobilized to amplify progressive public interest campaigns. The top 100 organizations mobilized 75 percent of comments on proposed rules posted to regulations.gov (43,938,811). Each mobilized between 39,729 and 5,939,264 comments.

The percent of rules on which each organization lobbies with a pressure campaign rather than without one (the "Percent" column in Table 2.2) shows only a few organizations using pressure campaigns the majority of the time they lobby. Most lobbying organizations use pressure campaigns a small percentage of the time they lobby in rulemaking. The most extreme example is the American Petroleum Institute (API), which lobbied on hundreds of rules between 2005 and 2020, more than most of the other top mobilizing organizations. Yet it almost never uses public pressure campaigns (at least in its own name). While API did sponsor a number of astroturf campaigns by front groups, API almost always lobbied without the aid of a pressure campaign. Almost all of these top mobilizing organizations usually rely on their legal and policy teams alone. The fact that so many of the top mobilizers are

Table 2.2: Organizations Mobilizing the Most Public Comments 2005-2020

Organization	Rules Lobbied On	Pressure Campaigns	Percent (Campaigns /Rules)	Comments	Average per Campaign
NRDC	530	62	11.7%	5,939,264	95,795
Sierra Club	591	110	18.6%	5,111,922	46,472
CREDO	90	41	45.6%	3,019,150	73,638
Environmental Defense Fund	111	31	27.9%	2,849,517	91,920
Center For Biological Diversity	572	86	15.0%	2,815,509	32,738
Earthjustice	235	59	25.1%	2,080,583	35,264
World Wildlife Fund	69	9	13.0%	1,133,001	125,889
National Wildlife Federation	141	36	25.5%	1,113,056	30,918
Friends Of The Earth	127	28	22.0%	1,051,930	37,569
Environment America	40	24	60.0%	833,680	34,737
Humane Society	297	24	8.1%	825,350	34,390
Defenders Of Wildlife	198	17	8.6%	796,571	46,857
Organizing For Action	11	8	72.7%	779,270	97,409
Axcess Financial	4	1	25.0%	695,580	695,580
League Of Conservation Voters	32	24	75.0%	637,807	26,575
Union Of Concerned Scientists	105	30	28.6%	625,152	20,838
American Petroleum Institute	399	3	0.8%	614,989	204,996
Evangelical Environmental Network	8	8	100.0%	553,175	69,147
America's Electric Cooperatives	3	2	66.7%	493,222	246,611
Moms Clean Air Force	18	17	94.4%	482,095	28,359

Table 2.3: The Frequency of Mobilizing Pressure Campaigns by Coalition Type

Coalition Type	No Mass Comment Campaign	Mass Comment Campaign	Total
Private	97	61	158
Public	134	183	317

also highly sophisticated lobbying organizations like the Sierra Club and API lends support to my argument that public pressure campaigns are one tool that advocacy organizations may use in addition to more insider tactics.

In line with Hypothesis 2.3, 67 percent of public pressure campaigns are led by public interest coalitions, with only 33 percent led by private interest coalitions. While public interest groups lobbied slightly more often in the sample selected for hand coding (because half the sample was weighted to capture rules that received more comments), private interest coalitions are more common in the broader sample. In contrast, Table 2.3 shows that mass comment campaigns were twice as likely to be led by public interest groups.

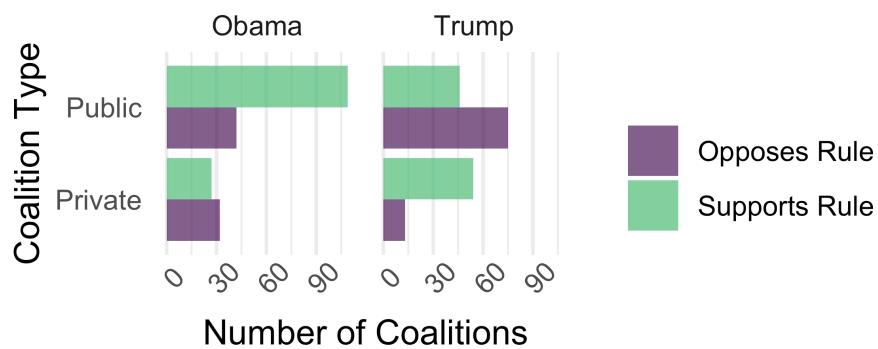
Figure 2.12 provides further evidence for Hypothesis 2.3, showing that, overall, public interest campaigns mobilized more often under both the Obama and Trump administrations. Public interest coalitions mobilized more campaigns both opposed and supporting policies of the Obama administration. However, public interest coalitions were more likely to support policies of the Obama administration and oppose policies of the Trump administration, whereas private interest group coalitions were more likely to support Trump-era policies. Figure 2.12 shows the number of coalition-level campaigns (on the x-axis) organized by public and private coalitions under each administration. Many of these campaigns included hundreds of organizations. The color of the bars indicates whether the average hand-coded spatial position of each coalition's members indicated coalition-level support or opposition

Table 2.4: The Scale of Public Pressure Campaigns by Coalition Type

Coalition Type	Total Comments	Average Comments
Private	3,064,671	50,241
Public	37,548,500	205,183

to the proposed rule on which they were commenting.

Figure 2.12: Number of Public and Private Interest Coalitions Supporting and Opposing Rules in the Hand-Coded Sample of Proposed Rules Open for Comment on Regulations.gov, 2005-2020

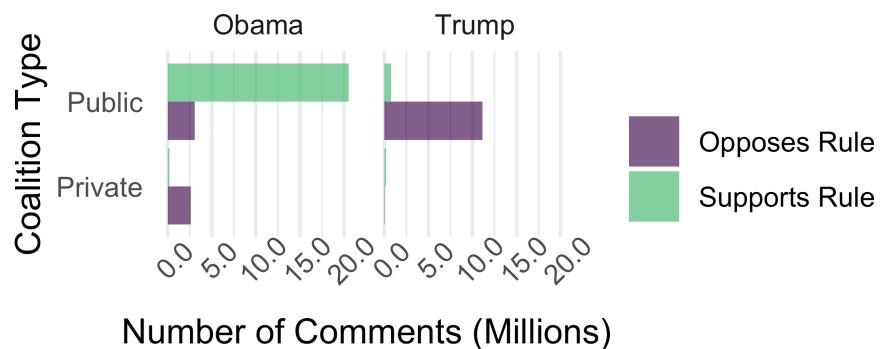


In line with Hypothesis 2.4, public interest mass comment campaigns, on average, garner a larger response. The average number of comments for a public interest campaign is 205,183. In contrast, the average number of comments for a private interest campaign is 50,241. On rules where both public and private interest coalitions ran campaigns, the average response to the public interest campaign was 119,090. Private interest campaigns averaged 85,534 comments.

Table 2.4 shows that public interest coalitions mobilized more comments per campaign and more total comments than private-interest coalitions in the hand-coded sample. This supports Hypothesis 2.4, which predicted that public interest coalitions would mobilize more people on average because they have more latent public support on which to draw.

Figure 2.13 provides further evidence for Hypothesis 2.4, showing that, overall, public interest campaigns mobilized more comments under both the Obama and Trump administrations. Indeed public interest coalitions mobilized both more supportive comments and more opposing comments under both administrations. Figure 2.13 shows the number of comments in millions (on the x-axis) organized by public and private coalitions under each administration. The color of the bars indicates whether the average hand-coded spatial position of each coalition's members indicated coalition-level support or opposition to the proposed rule on which they were commenting.

Figure 2.13: Number of Comments Mobilized by Public and Private Coalitions in the Hand-Coded Sample of Proposed Rules Open for Comment on Regulations.gov, 2005-2020



Hypothesis 2.5 predicts that large national policy advocacy organizations are responsible for most pressure campaigns targeting national policy. These organizations have the incentive as well as the resources and organizational capacity to launch campaigns.

2.4.3 Private Interests Rarely Use Public Pressure

Only a few of the top mobilizing organizations lobby in coalitions that focus on narrow material interests. The most prolific is a coalition of oil and gas companies led

by the American Petroleum Institute (API). This coalition includes national policy advocacy organizations funded by the oil and gas industry, including Consumer Energy Alliance, Energy Citizens, and Energy Nation. It also includes industry associations in adjacent sectors, such as the Interstate Natural Gas Association of America and Association of Oil Pipe Lines, and state-level industry associations, such as The Alaska Oil and Gas Association (AOGA). API lobbied on over 400 rulemaking dockets, but it only launched public pressure comment campaigns on a few rules. In line with Hypothesis 2.6, environmental groups ran much larger campaigns on these same dockets. API only attached their name to one of these campaigns.

The only other private-interest coalition leader among the top 100 mobilizing organizations is Axcess Financial. Axcess led only one campaign in opposition to the CFPB's Payday Loans rule.

In line with Hypothesis 2.6, private interest coalitions are less likely than public interest coalitions to lobby unopposed, suggesting that they often launch pressure campaigns in response to an opposing campaign. Of 180 coalition-scale pressure campaigns in the hand-coded sample, only 26 private interest coalition ran a pressure campaign when they were not up against a public interest group's campaign. Yet 99 public interest coalitions ran a pressure campaign when they were not up against a private interest group's campaign.

Table 2.2 shows the most commented-on dockets. The most prolific mobilizers are national environmental organizations. A coalition of environmental organizations and their allies mobilized a majority of public comments five out of the top ten dockets (Figure 2.14). In part, this is because the Environmental Protection Agency produces a large share of the substantive rules posted to regulations.gov. However, it is notable that nearly all of the top mobilizers generally lobby together.

The top private-interest mobilizer on these ten dockets was America's Energy Co-

operatives (AEC). AEC mobilized significantly on the Clean Power Plan but not on the subsequent Clean Power Plan repeal. I argue that public interest group mobilization on the Clean Power Plan was an example of “going public” to pressure the Obama administration and then “going down fighting” in the face of the Trump administration’s repeal. My theory, specifically Hypothesis 2.6, predicts that in such a case, the utility industry would have incentives to counter-mobilize in response to public interest campaigns in the first policy fight (because policy was on the line), but not the second (where public interest groups were organizing for reasons other than influencing policy). If AEC found their policy goals in the Clean Power Plan rulemaking threatened by the political information being generated by environmental groups, it would make sense to devote resources to their own public pressure campaign to disrupt any perceived consensus. If AEC were not concerned that environmental group mobilizing would affect the Clean Power Plan repeal, sponsoring a public pressure campaign would be a poor investment. Thus, while public interest groups had incentives to mobilize public comments in both cases, the private interests only had incentives to mobilize in the first. This mirrors the broader trend.

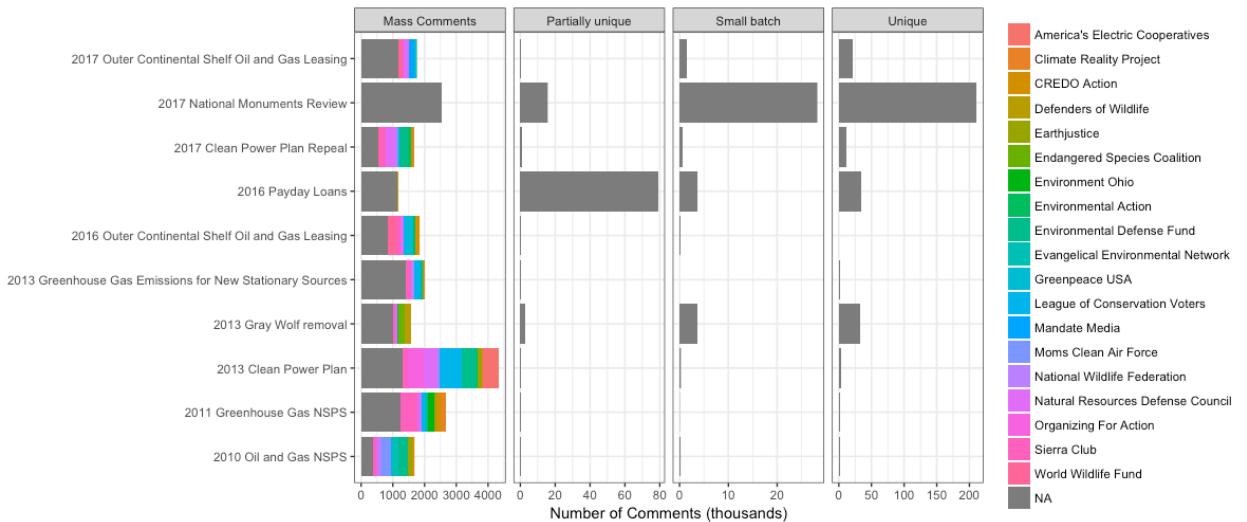
Is civic engagement resulting from public pressure campaigns better understood as “astroturf” or “grassroots” participation? In short, I find more grassroots participation than astroturf.

2.4.4 Most Comments Occur on a Small Number of Salient Rules

One consequence of the dominance of a few national policy advocacy organizations is that public pressure campaigns target a narrow subset of the wide range of issues addressed by agency rulemaking. Public engagement in rulemaking is highly clustered on a few rules made salient by these campaigns. Just ten rulemaking dockets account for 34 percent of comments (19,695,536). Figure 2.14 shows these ten dock-

ets and the share of comments from each of the top twenty mobilizing organizations (see the legend on the right). The first panel is mass comments (100 or more form letters or copied text). The vast majority of the total comments come from this category (notice the x-axis is scaled to each pane). Partially unique and small batches of form letters (less than 100) are a tiny fraction of the total and concentrated on a few rules where different audiences were engaged. Because public pressure requires resources and capacity, policy issues of interest to organizations with the resources and capacity to launch a campaign receive disproportionate amounts of public attention.

Figure 2.14: Dockets Receiving the Most Comments on Regulations.gov and the top Mobilizing Organizations



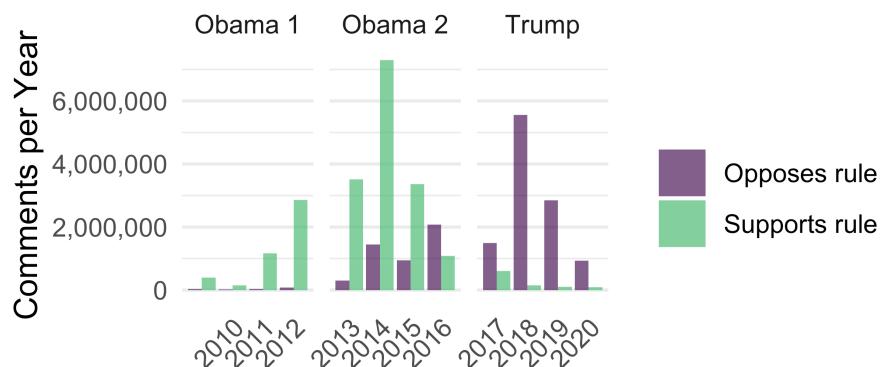
2.4.5 Partisan Asymmetry

Of the top 100 mobilizing organizations, 87 lobby in public interest coalitions. Only one of these organizations, the National Association for Gun Rights, is a public interest group aligned with the political right. The other twelve top mobilizers are

industry associations like the Consumer Energy Alliance (electric utilities) and the American Petroleum Institute (oil and gas companies).

Figure 2.15 shows that many more comments in the hand-coded sample until 2016 when there is a fairly dramatic reversal in the share of comments supporting and opposing proposed rules. While President Obama was still in office in 2016, the broader trend is almost certainly due to the biases in the groups that organize pressure campaigns. Appendix D includes an alternative version of this figure base on the full sample, machine coded by whether a comment text includes the words “support” or “oppose.” This alternative analysis shows a similarly dramatic shift but in 2018. Comments during the Obama administration were more likely to mention “support,” whereas comments during the Trump administration were more likely to mention “oppose.” This alternative measure validates the pattern we see in the hand-coded comments is a result of the interaction between the biases of mobilizing groups and the changing regulatory agenda due to the change in the presidential administration.

Figure 2.15: Hand-coded Comments Supporting and Opposing Draft Rules Posted to Regulations.gov, 2005-2020



2.5 Conclusion

Public participation in bureaucratic policymaking is overwhelmingly dominated by the lay public voicing opinions. They do not provide useful technical information or suggest specific edits to policy texts like the interest group comments that have thus far captured the attention of political scientists. If they add information to rulemaking, it is a different, more political type of information. Because nearly all public participation in agency rulemaking is mobilized as part of a public pressure campaign, levels of public participation reveal information about levels of public support behind different lobbying coalitions.

The political information generated by public pressure campaigns is not a substitute for sophisticated technical information; public pressure campaigns almost always explicitly support a more sophisticated lobbying effort. Coalitions that sponsor pressure campaigns almost always include sophisticated policy lobbying efforts. Moreover, almost all of the organizations that mobilize the most public comments also pursue inside lobbying strategies. Indeed, most of these organizations use pressure campaigns fairly rarely.

Compared to the usual suspects found in lobbying, especially in rulemaking, the organizations that mobilize public pressure campaigns (and thus the people they mobilize) represent broader segments of the public. A few public interest organizations mobilize the vast majority of civic engagement in bureaucratic policymaking. Relatively few campaigns push for narrow private interests. Even fewer are astroturf campaigns, which are often anonymous. This aligns with my theory that mass comment campaigns work by supporting more sophisticated lobbying efforts. Organizations that lobby repeatedly may not want to take the reputational risks of sponsoring astroturf campaigns to create fake political information. However, be-

ing anonymous makes it more difficult for astroturf campaigns to provide their intended support to the lobbying efforts that sponsor them. From the perspective of political information, astroturf may not be as valuable as it first appears (or as valuable as it is in more public contexts than comment periods). Because agency officials are unelected and discerning experts who know a great deal about the politics of their policy area, credible political information should be more influential than astroturf. This may explain why astroturf is less common than many observers seem to think. However, in my theory, astroturf campaigns are most likely to occur precisely when public pressure is most decisive, so they may still present a normative concern.

When private interest coalitions use public pressure tactics, it is almost always in response to a much larger effort by public interest groups. They are never unopposed. I argue that this is because narrow private interests do not generally have incentives to expand the scope of conflict; their campaigns merely aim to disrupt any potential perceptions of a public consensus. In contrast, public interest group campaigns often go unopposed. I argue that this is because public interest groups often have incentives to mobilize supporters, even when their opponents do not.

Because public pressure campaigns require resources and specialized capacities, they shine a light on a fairly narrow set of policy issues that interest the few large national policy advocacy groups with the capacity to mobilize large numbers of people. However, not all large national advocacy organizations use this lobbying tactic. In part, this is due to features of bureaucratic policymaking in the United States; some policy areas, like environmental politics, are more dominated by bureaucratic politics than others. Additionally, some forms of bureaucratic policymaking, including foreign policy and military policy, are rarely open to public comment. However, future research should examine why some policy advocacy groups target agency

rulemaking with pressure campaigns while others do not.

Public pressure campaigns targeting the bureaucracy are primarily a tool used by left-aligned lobbying coalitions. The constituencies utilizing public pressure do not alternate under different presidents, as some theories would predict. Instead, organizations with the capacity to mobilize public pressure do so under both Democrat and Republican administrations, generally supporting the policies of the former and opposing the policies of the latter.

In the end, public participation in bureaucratic policymaking is better explained by theories of democratic politics that focus on the dynamics of public conflicts than theories of bureaucratic policymaking that focus on technical information and expertise. Hope remains that public commenters may advance normative values that depend on diversifying voices in the policy process, resisting concentrated interests, and providing new information to policymakers.

More research is required. Specifically, we need to know the extent to which campaigns aim to influence policy or build organizational capacity (e.g., by recruiting members) for future policy fights. The extent to which campaigns aim to affect policy determines the likely effects of any particular campaign and campaigns in general. In short, it matters whether campaigns affect policy.

The distinction between public interest groups and businesses or private interest groups is a coarse distinction. While we can confidently say that pressure campaigns shift participation decisions away from business interests, more research is needed on the groups that dominate high-salience rules. How does this particular subset of public interest groups represent the public?

One way to study the relationship between public interest group lobbying and the broader public would be to identify nationally representative surveys that best align with particular policy debates. For example, Yackee (2019) discusses a Pew

Poll that found that Republicans and Democrats become more sympathetic to regulations when asked about more specific policies. Such evidence may allow us to test whether these particular public interest groups actually represent broader constituencies than the private interest groups they lobby against.

If resources shape who is able to mobilize and thus which subset of policies receive public attention, more research on resources requirements for organizing public pressure may help explain why some policies get more public attention than others. What exactly are the organizational capacities that allow organizations to pursue mass mobilizing? Answering this question may involve interviews with mobilizing groups and other seemingly similar groups that do not use this tactic.

Finally, because public participation is mediated through organizations, the normative value of public participation depends on how well these organizations represent the constituents they claim to represent. Future research should explore how well the claims that groups make match the support they are able to demonstrate through public pressure campaigns. For example, while mass comments show that people can be mobilized to support the cause, people may be misinformed about the policy (e.g., the payday loan customer who thinks fees are too high but is persuaded to comment in opposition to regulations on fees. It may also be that commenters are not who they say they are. For example, national audiences may be mobilized to sign a form letter that implies that they represent a specific affected area.

— 3 —

Policy Influence: Do Public Pressure Campaigns Influence Bureaucratic Policymaking?

Abstract

I investigate whether public pressure campaigns increase lobbying success in agency rulemaking using a mix of hand-coding and computational text analysis methods. To measure lobbying success, I develop computational methods to identify lobbying coalitions and hand-code a random sample of rules for whether each coalition got the policy outcome it sought. I then assess potential mechanisms by which mass public engagement may affect policy. Each mechanism involves a distinct type of information revealed to decisionmakers. Of primary interest is the extent to which public pressure campaigns affect agency decisionmakers directly or indirectly through their effects on elected officials' oversight behaviors. I find that members of Congress are more likely to engage in rulemaking when advocacy groups mobilize public pressure and that lobbying coalitions are more successful when they mobilize more legislators. However, I find little evidence that public pressure campaigns directly increase lobbying success. This may be because decisions to mobilize public pressure are correlated with anticipated lobbying success. Lobbying coalitions are more successful when they mobilize more members of Congress, but legislators disproportionately align with private interest (e.g., business-led) coalitions, not the public interest coalitions that run most public pressure campaigns.

3.1 Introduction

There is little overlap between scholarship on interest group influence in bureaucratic policymaking and scholarship on advocacy group's public pressure campaigns. Studies and models of interest group lobbying in the bureaucracy rarely include public pressure as a lobbying tactic (see Yackee, 2019, for a recent review). Conversely, studies of organized public pressure and contentious politics rarely include specific policy outcomes as their dependent variable (Andrews and Edwards, 2004; Burnstein, 2019). When they do, they tend to focus on landmark legislation (e.g., Gillion, 2013) or a few illustrative cases (Mansbridge, 1992; Rochon and Mazmanian, 1993; Yackee, 2009).

It is plausible that thousands of people engaging may alter the politics of bureaucratic policymaking (Coglianese, 2001), but this hypothesis remains largely untested. The limited prior work on public participation in bureaucratic policymaking has focused more on the quality than the impact of public input. Studies on small samples of policies suggest that large-scale public participation may prolong the policy process (Shapiro, 2008). Larger studies suggest that form letters are less influential than sophisticated comments (Balla et al., 2020). Scholars have yet to test whether the scale of public pressure supporting a coalition increases coalition-level lobbying success.

To address this gap, I assess the relationship between the number of people mobilized by public pressure campaigns and whether the coalition sponsoring each campaign achieved its policy goals. Building on the theory of the role of public pressure in bureaucratic policymaking outlined in Chapter 2, I argue that the unit of analysis must be the lobbying coalition, not individual comments and form letters. Rather than *comparing* the quality and impact of form letters to technical

comments written by lawyers, I argue that we must *attribute* both to the broader lobbying efforts they support. Lobbying, I argue, is about both the technical details of policy and politics. In theory, technical information and political information may both affect policy.

Because scholarship on bureaucratic policymaking has focused on the power of technical information, where insider lobbying is most likely to matter (Wagner, 2010) and where outside strategies are least likely to matter, political scientists have largely overlooked public pressure campaigns as a lobbying tactic. To date, there has been much less theorizing about the power of political information in bureaucratic policymaking. In this chapter, I theorize and test several mechanisms by which public input may affect bureaucratic policymaking. Each mechanism involves a distinct type of information that pressure campaigns may relay to policymakers.

To test whether public pressure campaigns increase lobbying success in agency rulemaking, I the impact of public comments on agency rules using a mix of hand-coding and computational text analysis methods. I develop computational methods to identify lobbying coalitions and hand-code a random sample of rules for whether each coalition got the policy outcome it sought. I then assess potential mechanisms by which mass public engagement may affect policy. Of primary interest is the extent to which public pressure campaigns affect agency decisionmakers directly or indirectly through their effects on elected officials' oversight behaviors. I test whether legislators are more likely to engage in rulemaking when advocacy groups mobilize public pressure. I then examine congressional oversight as a mediator for the policy effects of public pressure campaigns.

I find little evidence that public pressure campaigns increase lobbying success. Lobbying coalitions are more successful when they mobilize more members of Congress, but legislators disproportionately align with private interest (e.g.,

business-led) coalitions, not the public interest coalitions that run most public pressure campaigns.

Following this introduction, Section 3.2 reviews past work and builds a theory of how public pressure may affect policy outcomes. Section 3.3.1 introduces a novel dataset developed through an iterative process of computational methods and hand-coding. Section 3.3.2 develops models that use these data to assess the relationship between public pressure and policy outcomes, both directly and indirectly, through mobilizing elected officials. Section 3.4 presents the results and Section 3.5 concludes the chapter.

3.2 Theory: Interest Group Influence in Bureaucratic Policymaking

Foundational scholarship on both American politics (Lowi, 1969) and bureaucracy (Wilson, 1989) emphasize the critical role of interest groups. In particular, scholars highlight the differences between groups that represent broad and narrow interests. Lowi's famous policy typology distinguishes the politics of policymaking by what type of interests a policy affects. Similarly, Wilson's typology of government agencies is fundamentally linked to the kinds of interest group pressures agencies may face. For example, a "client-agency"—formed to support a sector or activity—will deal with narrow private interest groups that have incentives and power to influence the agency's policy decisions at every turn:

A client agency will have to struggle mightily to avoid having its work influenced by the single, organized group with which it must deal on a daily basis. Many do not succeed; a few do not even try (Wilson, 1989, p. 79).

Agencies created to serve broader interests emerge out of broad public interest groups organizing but face persistent pressure from the narrow private interests these agencies attempt to regulate. An entrepreneurial agency may even struggle to persist if the broad-based public interest groups that support it lose power:

An agency created as the result of entrepreneurial politics is in a precarious position: since it was born out of an attack on the interests it is now supposed to regulate, its employees must worry that the social movements that created their tasks may desert the fledgling agency because of shifting interests or waning passions, leaving it to confront a hostile interest group alone and unprotected (Wilson, 1989, p. 80).

Policy outcomes depend on the distribution of power among interest groups (Dür and De Bièvre, 2007). Whether representing broad or narrow interests, many interest groups exist primarily to influence policy (Baumgartner and Leech, 2001; Leech, 2010), and policymakers face strong interest-group demands (Yackee, 2006). Businesses and their associations are the most active and influential lobbying organizations, especially in bureaucratic policymaking (Yackee and Yackee, 2006). In particular, businesses are better positioned to provide evidence and make technical arguments (Jewell and Bero, N.d.). Organizations with the resources to lobby with multiple tactics across multiple venues over time are more likely to influence bureaucratic policymaking (Yackee, 2015a). However, public interest advocacy organizations also have well-documented effects on legislative policymaking (Grossmann, 2012).

With renewed attention to the role of advocacy groups in policymaking (Hojnacki et al., 2012; Grossmann, 2012), the dichotomy between accountability to political principals and “capture” is being replaced by studies that focus on numerous mechanisms of interest group influence in policymaking. Measuring lobbying success is

a major challenge for studies of interest group influence (Mahoney, 2007*a*; Yackee and Yackee, 2006; Rashin, 2017). As Potter (2017*a*) put it, “discerning influence from any kind of lobbying is a notoriously elusive exercise because of the difficulty in knowing the counterfactual scenario.” Despite this renewed attention to interest groups and their effect on the bureaucracy, scholars have paid relatively little attention to outside lobbying strategies.

One reason that scholars of bureaucratic policymaking have largely ignored outside lobbying strategies like public pressure campaigns is the strong normative belief among many legal scholars that bureaucratic policymaking should rest on rational analysis rather than politics. Epstein, Heidt and Farina (2014, p. 4) dismiss mass comments as “effectively, votes rather than informational or analytical contributions. Rulemaking agencies are legally required to make policy decisions based on fact-based, reasoned analysis rather than majority sentiment; hence, even hundreds of thousands of such comments have little value in the rulemaking process.” Notably, the ACUS draft recommendations on “Mass and Fake Comments in Agency Rulemaking” suggests that “effective comments” give “reasons rather than just reactions” (ACUS, 2018, p. 33). If true, most public reactions to proposed rules such as those expressed in mass comments would have no effect on rulemaking.

Skepticism about bureaucratic policymaking as a venue for collective action has led most scholars to dismiss public pressure campaigns as epiphenomenal to technocratic rationality and bargaining among agency officials, their political principals, and interest groups. Indeed, almost all empirical studies of rulemaking discard unsophisticated comments from ordinary people. A comprehensive review of scholarship on the politics of rulemaking (Yackee, 2019) finds skepticism about the influence of citizen comments, but no studies analyzing public pressure campaigns as a lobbying tactic:

Kerwin and Furlong (2011) point out that a citizen must know not only that a regulation is being formulated but also how and when to participate. This is a high bar for most Americans. Second, to be influential during rulemaking, commenters may require resources and technical expertise. As Epstein, Heidt and Farina (2014) suggest, agency rule-writers—who are often chosen because of their technical or policy-specific expertise—privilege the type of data-driven arguments and reasoning that are not common to citizen comments. (p. 10)

For any particular lay commenter, this conclusion seems inescapable; individuals acting alone are unlikely to affect policy. While “ordinary” members of the public may occasionally provide novel and useful technical information to expert bureaucrats, such sophisticated means of influencing policy are out of reach for the vast majority of people. Thus, to investigate the potential role of ordinary people in bureaucratic politics I look elsewhere—not because ordinary people never provide novel and useful technical information, but because this is not how most people attempt to influence policy, nor, I argue, how we should expect ordinary people to have influence.

Most public comments do not provide useful technical information or suggest specific edits to policy texts like the interest group comments that have thus far captured the attention of political scientists. If they add information to rulemaking, it is a different, more political flavor of information. Thus, I investigate the value of ordinary people’s comments not individually but as a result of public pressure campaigns.

3.2.1 What We Know About the Effects of Mass Comment Campaigns

Two published studies have looked at the relationship between public pressure campaigns and policy outcomes in agency rulemaking. Shapiro (2008) investigates

whether the number of public comments relates to the time between the draft and final rule. With only nine observations, this study was unable to uncover general patterns. Balla et al. (2020) study 22 Environmental Protection Agency Rules and identify 1,049 “campaigns” targeting these rules—here, a “campaign” means a batch of form-letter comments associated with an organization, which they code as “regulated” (e.g., a power plant) or a “regulatory beneficiary” (e.g., environmental groups). They find that the agency was more likely to reference the more sophisticated comments that groups submit than form letters. They also find that several types of observed policy changes (e.g., changes in the number of regulated entities and the date that the rule goes into effect) better align with changes requested by sophisticated interest group comments than those found in form letters. They conclude:

These patterns suggest that legal imperatives trump political considerations in conditioning agency responsiveness, given that mass comment campaigns – relative to other comments – generally contain little “relevant matter. (Balla et al., 2020, p. 1)

While Balla et al. (2020) recognize the political nature of public pressure campaigns, they follow many of the administrative law scholars in comparing form letters to sophisticated technical comments. For example, their model compares the number of times the agency references the lengthy comments drafted by the Sierra Club’s Legal Team to the number of times the agency references the short form letters drafted by the Sierra Club’s Digital Team. In contrast, I argue that we should understand the form letters as a tactic aimed at gaining power for coalitions and organizations that also submit sophisticated technical comments. Public pressure is not an alternative to sophisticated lobbying efforts; it is a resource that works in tandem.

3.2.2 Public Support: a Political Resource

An organization's ability to expand the scope of conflict by mobilizing a large number of people can be a valuable political resource (Schattschneider, 1975), and public pressure campaigns expand the scope of conflict (Potter, 2017a). Public engagement and mobilization can thus be a tactic to gain power. Scholars who understand mobilization as a lobbying tactic (Furlong, 1997; Kerwin and Furlong, 2011) have focused on how organizations mobilize their membership. I expand on this understanding of mobilization as a lobbying tactic to include the mobilizing of broader audiences—the “attentive public” (Key, 1961) or “issue public” (Converse, 1964).

Here I build on three insights, the first two of which I introduce in Chapter 2 and only summarize here briefly. First, Furlong (1997) and Kerwin and Furlong (2011) identify mobilization as a tactic. The organizations that they surveyed reported that forming coalitions and mobilizing large numbers of people are among the most effective lobbying tactics. Organizations surveyed by English (2019a) also reported being organized into coalitions. The theory and empirical strategies below build on work showing that the size of lobbying coalitions (the number of organizations lobbying together) predicts lobbying success (Yackee and Yackee, 2006; McKay and Yackee, 2007; Nelson and Yackee, 2012; Dwidar, 2021a).

Second, I argue that the same mechanism by which scholars understand coalition size to matter should apply to public pressure campaigns, as well. As a tactic, public pressure campaigns generate political support and information about the coalition that mobilized it. Nelson and Yackee (2012) identify political information as a potentially influential result of lobbying by different business coalitions. While they focus on mobilizing experts, I argue that Nelson and Yackee (2012) describe a dynamic that can be extended to mass commenting. Concerning political infor-

mation, this logic extends to non-experts. The number and distribution of ordinary supporters may matter because it suggests a *public* consensus. Instead of bolstering *scientific* claims, a perceived public consensus bolsters *political* claims.

Third, Furlong (1998), Yackee (2006), and others distinguish between *direct* and *indirect* forms of interest-group influence in rulemaking. This distinction is especially important for political information, which may be most influential through indirect channels (e.g., by mobilizing elected officials to contact the agency). In short, to understand how groups lobby in rulemaking, we must understand mass mobilization as a tactic aimed at providing political information that may have direct and indirect impacts on policymaking.

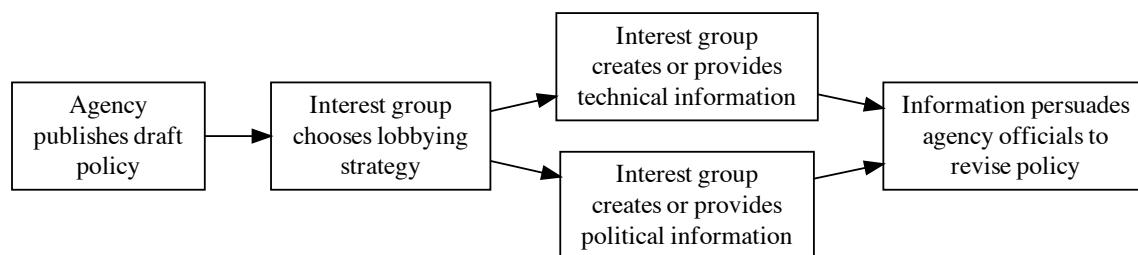
The direct path to influence involves persuading agency officials. As discussed in Section 2.2, most scholars have emphasized mass comments' lack of useful technical information, but a few scholars have raised the role of mass comment campaigns in creating political information. Cuéllar (2005) calls on agency officials to pay more attention to ordinary peoples' expressions of preference and Rauch (2016) suggests reforms to the public comment process to include opinion polls. I build from a similar intuition that mass comment campaigns currently function like a poll or petition, capturing the intensity of preferences among the attentive public—i.e., how many people are willing to take the time to engage. Self-selection may not be ideal for representation, but opt-in participation—whether voting, attending a hearing, or writing a comment—may often be one of the few heuristics decisionmakers have about public preferences.

The indirect pathway involves affecting the behavior of elected officials, which may then affect the agency's policy responses. Campaigns inform agency officials about the distribution and intensity of opinions that are often latent, not fully formed, or too nuanced to estimate a priori. Many questions that arise in rule-

making lack analogous public opinion polling questions, making mass commenting a unique source of political information. As with public opinion on any specific policy issue, most members of the public and their elected representatives may only learn about the issue and take a position as a result of a public pressure campaign (Hutchings, 2003). If a lobbying strategist believes the attentive public is on their side, they may attempt to reveal this political information to policymakers by launching a public pressure campaign.

Potter (2017a) identifies the power of mass comment campaigns to “expand the scope of conflict” and “give leaders the cover they need to pursue policies that face political opposition” as two distinct mechanisms by which campaigns may affect policy outcomes. In contrast, I consider expanding the scope of the conflict to be a broader category that encompasses the second. Expanding the scope of conflict may both directly persuade agency officials and indirectly affect policy decisions by reshaping the strategic policymaking environment (e.g., giving cover from political opposition in Congress).

Figure 3.1: Direct Effects of Political Information: Incorporating Political Information into Models of Bureaucratic Policymaking



For convenience, I have reprinted Figure 2.3 here as Figure 3.1. (See the discussion in Chapter 2 regarding how this revised model incorporates political information about the attentive public.)

This figure shows two direct pathways by which a lobbying organization may in-

fluence policymakers. One lobbying strategy (often the only strategy in models of lobbying the bureaucracy) is for an organization to provide technical or legal information such as data, analyses, or legal arguments. There are many reasons to believe that providing technical information is a powerful strategy for organized groups to affect policymaking, especially in the bureaucracy. Bureaucrats may be particularly likely to be persuaded by technical information that leads them to update their beliefs about the policy language that would best achieve desired policy outcomes.

In addition to providing technical information through sophisticated comments, an organization or coalition of organizations may provide political information by mobilizing supporters. The size of a coalition's investment in mobilizing supporters and the response it generates offer political information to policymakers, including information about the resources a coalition is willing to invest, the intensity of sentiments among the attentive public, and the potential for conflict to spread. The first two types signal two kinds of intensity or resolve. Both show the mobilizers' willingness to commit resources to the lobbying effort, which often extends beyond a mass comment campaign. Second, costly actions (even fairly low-cost behaviors like signing a petition) show the intensity of opinions among the mobilized segment of the public (Dunleavy, 1991). The number of people engaged by a campaign is not strictly proportional to an organization's investment. The more people care, the less it costs to mobilize them and thus the higher the response to a campaign. This kind of political information may persuade policymakers to adjust their policy positions.

Inferences about the extent to which lobbying caused any changes (or lack of changes) between the draft and final rule are challenging, but studies of policy generally use observational data and thus require some assumptions linking policy suc-

cess (a lobbying group getting their desired result) and policy influence (causing a policy outcome). Groups invest in providing information “relevant” to technocratic policymakers, and the policy response is assumed to be a function of this information.

The causal process visualized in Figure 3.1 may only operate under certain conditions. The influence of political information on policy (the arrow between “Interest group creates or provides political information” and “Information persuades agency officials to revise policy”) depends on the institutional processes by which agency officials receive and interpret information. That is, agency contexts may condition the extent to which officials may be persuaded. Agency officials often reject the notion that public pressure should inform their decisions. For example, in response to several public pressure campaigns, the Consumer Financial Protection Bureau wrote:

A rough estimate of pro and con submissions by individuals may provide insight as to public interest in a topic and to individual consumer experiences. However, under both the Administrative Procedure Act (APA) and the Dodd-Frank Act, the Bureau must base its determinations in rulemaking on the facts and the law in the rulemaking record as a whole. (CFPB-2020-14935/p-134)

Despite statements like this, there are plausible mechanisms by which political information may reshape the politics of rulemaking. Public pressure may bring in additional and more political agency personnel, which in turn can affect the policy process (Carrigan and Mills, 2019). Likewise, it may attract the attention of members of Congress who then raise procedural concerns (Lowande and Potter, 2021).

We may expect to observe mass mobilization influencing a particular policy only if the mobilization effort was aimed at influencing that policy, rather than using the

public comment period to build organizational membership or power more generally (see Chapter 2).

3.2.3 Hypotheses about the Relationship Between Mass Engagement and Lobbying Success

Hypothesis 3.1 sets out the most direct implication of my theory. If public pressure campaigns generate political information that affects policy, lobbying coalitions that use pressure campaigns should win more often. Rather than compare form letters to technical comments, I attributed form letters to the broader lobbying efforts they support. Thus, assessing Hypothesis 3.1 requires comparing lobbying success when coalitions do and do not opt to use a pressure campaign to support their more technical lobbying effort. The power of a pressure campaign in my theory rests in its ability to make a coalition more successful in achieving its policy goals that are more precisely articulated in technical comments. Lobbying success is thus the extent to which a coalition got the specific policy changes it sought.

Hypothesis 3.1. Lobbying coalitions are more likely to succeed when they use public pressure campaigns compared to when they do not.

If Hypothesis 3.1 is correct, lobbying coalitions with public pressure campaigns should have higher average levels of lobbying success than coalitions that do not.

Building on the intuitions about the reasons that organizations launch pressure campaigns set out in 2.2, the effect of pressure campaigns may depend on the reason for mobilizing. Public interest groups more often have incentives to mobilize for reasons other than influencing policy than private interest groups. As I show in 2.4, this means that campaigns are overwhelmingly dominated by public interest groups. In contrast, private interest groups such as businesses only have incentives to mo-

bilize public pressure when they expect it to affect policy. This dynamic creates a selection effect whereby pressure campaigns by private interest groups should be more likely to influence policy because they are more concentrated on policies that can be influenced.

Hypothesis 3.2. On average, public pressure campaigns are more highly correlated with lobbying success for private interests than public interest groups.

Finally, we can think about lobbying success at the organizational level. It would be inappropriate to compare lobbying success across organizations, many of which may be in the same coalition. However, because many organizations lobby across many rules, we can assess leverage variation in the same organization's lobbying success. If Hypothesis 3.3 is correct, using pressure campaigns should be positively correlated with lobbying success *within* organizations as they lobby across multiple rules in coalitions that do and do not use pressure campaigns.

Hypothesis 3.3. Organizations are more likely to succeed when they lobby in a coalition that uses a public pressure campaign.

Understanding civic participation in rulemaking as a mediated process aimed at generating political information suggests a different role for mass comment campaigns than that assumed by existing (albeit limited) literature on this topic. While my hypotheses address a similar question (do mass comments matter?), my theory implies a different way of answering this question. Rather than an alternative to lobbying strategies that rely on more “sophisticated”—e.g., technical—information, my framework posits mass comment campaigns (at least those aimed at influencing policy) as a part of a broader strategy that includes providing both technical and political information to decisionmakers.

The next subsection restates the theory in the language of formal models of rulemaking.

3.2.4 Incorporating Political Information into Formal Models of Rulemaking

Formally, my argument that lobbying strategies like pressure campaigns aim to create political information requires several crucial amendments to existing information-based models of rulemaking. Specifically, I argue that information about the political context in which policymakers operate can persuade them to make policy changes. Allowing policymakers to be persuaded in such a way allows public pressure campaigns to be incorporated into these models. Doing so also resolves some puzzling results of models that assume “fixed” political preferences. Allowing policymakers’ political priorities to be affected by political pressure from commenters creates uncertainties about policymakers’ political positions and incentives for lobbying organizations to attempt to affect them by providing political information.

My aim here is not to test the implications of formal models. Rather, I briefly review the necessary modifications to one leading formal model in order to illustrate the importance of political information to theories of policymaking. The statistical tests of my theory that I propose in Section 3.3.2 require that policymakers can be persuaded by political information. My aim in this subsection is to illustrate the implications of my argument and results for formal theory.

In the most sophisticated model of notice-and-comment rulemaking to date, Libgober (2018) posits a utility function for policymaker G as shown in Equation 3.1.

$$u_G(x_f) = \alpha_0 x_f^2 + \sum_{i=1}^N \alpha_i u_i(x_f) \quad (3.1)$$

where x_f is the spatial location of the final policy, u_i is the preference of “potential commenter” i , and α is a vector of “allocational bias”—i.e., how much the agency decisionmakers care about their preferences α_0 relative to accommodating the preferences of others $\alpha_{i=1:N}$. Bureaucrats balance their own understanding of their mission against their desire to be responsive. In Libgober’s model, $\alpha_{1:N}$ is a fixed “taste” for responsiveness to each member of society (i.e., each potential commenter), so policy decisions simply depend on their answer to the question “what do people want?”

Incorporating insight about the power of technical information, we might interpret α_0 (the policymakers’ understanding of their own preferences) to be affected by technical information. Including political information in this model requires two additional parameters related to a second question: “Why would agency officials care?”

First, like other lobbying strategies, public attention and pressure may shift the strategic environment, leading policymakers to strategically shift their allocation in favor of some groups and away from others. Let this strategic shift in allocation be a vector α_s . For example, interest groups may mobilize elected officials to support their lobbying efforts. If these elected officials can sanction or reward agency officials or veto the agency’s policy, their involvement may reshape agency officials’ strategic calculations. Agency officials may then strategically adjust their policy. For each commenter, i , α_{si} is the policymakers’ strategic shift in their desire to allocate policy benefits to group i as a result of changes in the broader decision environment, such as increased attention from members of Congress. For example, if a

member of Congress writes to the agency in support of commenter i 's position, α_{si} may increase, whereas if a member of Congress writes to the agency in opposition to commenter i , α_{si} may decrease.

Second, campaigns may directly persuade agency officials to adjust their allocational bias, for example, by supporting claims about the number of people an organization represents or the intensity or legitimacy of their policy demands. Let this direct shift in allocations be α_d . This parameter captures persuasion on normative grounds and beliefs about which segments of society (i.e., which potential commenters) deserve the benefits of government policy or should be responsible for bearing the costs. Policies allocate costs and benefits across groups. If an organization makes a persuasive argument for distributional justice or shows that it represents a large segment of the public, officials may update their beliefs and biases about how to allocate costs and benefits. For each commenter, i , α_{di} is the shift in the policymaker's desire to allocate benefits to i as a result of being directly persuaded.

Let policymakers' original, immutable taste now be α_t . Having decomposed the policymaker's allocative bias into three parts (their fixed tastes α_t , shifting strategic environment α_s , and potential to be convinced α_d), the policymaker's utility function is now Equation 3.2.

$$u_G(x_f) = (\alpha_{t0} + \alpha_{s0} + \alpha_{d0})x_f^2 + \sum_{i=1}^N (\alpha_{ti} + \alpha_{si} + \alpha_{di})u_i(x_f) \quad (3.2)$$

If, after the comment period, the strategic environment is unchanged, and officials remain unpersuaded to change their beliefs about which segments of society deserve favor, α_s and α_d are 0, and the model collapses to the original information game based on fixed tastes. This outcome is less plausible when groups go public and

expand the scope of conflict.

Adding these parameters resolves a puzzling result of Libgober's model. Empirically, rules that receive comments do not always change. This result is impossible in a model where bureaucrats only have known fixed tastes and potential commenters only seek policy changes. For policy-seeking organizations to lobby but fail to influence policy requires that they are either uncertain or wrong about an agency's allocative bias or their ability to shift it. Incorporating political information allows change and thus uncertainty in an agency's biases.

Even if we assume that policymakers' allocative preferences are known, allowing them to be influenced by commenters means that one commenter's incentives to comment now depend on other commenters' lobbying strategies. This characterization of rulemaking aligns much more closely with empirical studies that show organizations provide technical information as a means of persuading policymakers. Likewise, this characterization of rulemaking aligns with my theory that groups mobilize public pressure campaigns to generate political information that could persuade agency officials to change their position for political reasons.

Thus far, I have mostly focused on more direct ways that pressure campaigns may inform and persuade bureaucratic policymakers. However, interest groups and the public attention they mobilize also influence policy outcomes indirectly by affecting an agency's strategic environment. The remainder of this section focuses on how public pressure campaigns may affect one key part of a bureaucrat's strategic environment: attention from members of Congress.

3.2.5 Congressional Oversight as a Mediator of Interest-group Influence

When George W. Bush replaced Bill Clinton as president, career bureaucrats at the Federal Trade Commission (FTC) knew that this meant a change in policy prior-

ties. Many rulemaking projects initiated under the Clinton administration were likely to be withdrawn or put on hold. They also knew that the new administration wanted to be perceived as advancing a new policy agenda, not merely reversing Clinton-era policies. Policy entrepreneurs within the agency saw a political window of opportunity to initiate a new regulatory agenda to curb a growing volume of telemarketing calls. This initiative seemed likely to be popular with voters but, even with a supportive president, would be difficult to advance over the objections of the telemarketing industry, whose campaign donations had earned them many powerful allies in Congress. Agency officials reported being pessimistic about the FTC's telemarketing effort overcoming opposition from Congress.

When the draft "Telemarketing Sales Rule" (also known as the "Do Not Call" rule) was published, however, public support and engagement were overwhelming. The rule received thousands of supportive comments from frustrated members of the public who were encouraged to comment by advocacy groups like the Consumer Federation of America. Agency officials reported that the volume of public response not only encouraged the agency and the administration but, more importantly, "scared off" members of Congress that the industry was relying on to kill or reverse the rule (personal communication, 2018). Once it became clear that the public was paying attention and sufficiently mobilized to act on the issue, elected officials became much less willing to take unpopular positions to support industry donors. Instead, Congress ended up codifying the agency's authority to implement the Do Not Call regulations with legislation the following year.

The story of the Do Not Call rule suggests that public engagement in rulemaking may occasionally be influential because it affects the behavior of elected officials who have the power to provide key support or opposition to a proposed rule. Public attention and support gave agency officials "political cover" to advance their

policy agenda (personal communication, 2018). Public pressure campaigns demobilized political opposition, changing the agency's political environment and policy outcomes.

Wilson notes a similar pattern with the FTC's Funeral Industry Practice Rule and Used Car Rule:

Undertakers and used-car dealers were outraged by these proposed rules. Very quickly, members of Congress discovered just how many undertakers and car dealers they had in their districts and how well-connected they were. The FTC suddenly had activated large, hostile interests who were successful in getting Congress to force the agency to back down (Wilson, 1989, p. 83).

Members of Congress often learn about issues from—and are spurred to act by—public pressure campaigns. Legislators often submit comments from their constituents, either on their own or attached to their own comments. For example, several members of Congress attached mass mail or petitions from their constituents to their comments on the Consumer Financial Protection Bureau's controversial Payday Loan rule. Public pressure campaigns often seek to influence policy by informing elected officials of their constituents' demands. Many campaigns collect the zip code of letter-signers so that they can forward constituent comments to their representatives. Some form letters include a line for signers to "CC" (carbon copy) their member of Congress (see, for example EPA-HQ-OAR-2005-0161-2624). When members of Congress comment on agency rules, they are often aware of public pressure campaigns. Many are clearly spurred to engage in bureaucratic policymaking pressure campaigns and their constituents who participate in them.

3.2.5.1 Principal-agent Relationships During Rulemaking

Political oversight of bureaucracies has long concerned both practitioners and theorists. Political scientists often model the relationship between elected officials and bureaucrats as a principal-agent problem. For example, an agency may have a preferred policy but may change the rule or delay its publication upon observing its principals' preferences. Agencies may do this to avoid political consequences such as having their policies reversed (Potter, 2017b) or because they perceive elected officials as representing public demands (Cuéllar, 2005).

While it is widely accepted that agency officials take their principals' positions into account, the mechanisms by which this occurs and the empirical conditions for political influence are unclear.

I focus on lobbying influence in the period between the publication of draft and final rules and thus on information about principals' preferences revealed to the agency in this period. In principal-agent terms, this means I am focusing on "agency policymaking," where the agency makes the first move and members of Congress react, perhaps threatening future sanctions (Ferejohn and Shipan (1990)). Oversight during rulemaking is a form of ex-post control (Epstein and O'Halloran, 1994), in this case, after the proposed rule is published. Upon learning the content of a draft rule, an official with power over the agency may choose to signal their demands to the agency. Elected officials may also engage in procedural oversight, but these procedural demands almost always accompany substantive policy demands (Lowande and Potter, 2021).

There is a long-running debate among scholars over how political oversight operates—i.e., how the behaviors of elected officials inform agency decisions. McCubbins and Schwartz (1984) suggest two oversight mechanisms. Principals may

proactively attend to agency activities, like a “police patrol,” or they may rely on bureaucrats’ fear of sanction when attentive interest groups alert principals about agency activities, like a “fire alarm.” Administrative procedures like mandatory public comment periods thus offer opportunities for both proactive oversight and to be alerted to oversight opportunities (Balla, 1998).

While theories of “fire alarm” and “police patrol” oversight focus on instances where legislators object to bureaucrats’ actions, Congressional attention may also support bureaucrats in fights with powerful interest groups. Indeed, like interest groups, the comments of members of Congress often support proposed rules. For example, in 2016, a group of Democratic legislators wrote encouraging words to Obama’s Treasury Department: “We urge you not to yield to the intense lobbying against these regulations, directed both at Treasury and the Congress, by multinational business and its trade associations.” In this example, congressional oversight is explicitly supportive of agency action. Rather than reacting to agency wrongdoing, these members were spurred to act by becoming aware of pressure groups lobbying the agency.

Lobbying campaigns increase the salience of the rulemakings they target. In addition to attracting allies in Congress, increased public attention may capture the attention of members of Congress on the opposite side of the issue. For example, when the Department of the Treasury published draft rules implementing the Unlawful Internet Gambling Act of 2006, the proposal generated unusually high levels of public attention. As a result, two bipartisan groups of legislators submitted comments on the rule. One group, led by the chair of the House Judiciary Subcommittee on Commercial and Administrative Law, raised concerns about the Department’s implementation of the Administrative Procedure Act. The other group of legislators, led by Senator Mike Pence, pushed back against interest-group opposi-

tion to the rule and urged the Department to implement the rules. Public pressure campaigns may increase the likelihood that legislators on both sides of the issue engage.

3.2.6 Incorporating Political Information into Models of Political Oversight

In addition to interest groups directly alerting elected officials to oversight opportunities as in the “fire alarm” model, the political information signaled by public pressure campaigns may alert elected officials to political risks (like a “warning sign”) or, conversely, to encourage the agency to hold course (like a “beacon”) attracting positive attention and credit claiming opportunities for their oversight work. In the case of the FTC’s “Do Not Call” rule and subsequent legislation, mass engagement functioned more as a “warning” for would-be opponents and a “beacon” for potential allies, effectively enabling and empowering rather than restraining the agency as the classic “police patrol” and “fire alarm” concept suggests. Table 3.1 expands the “fire alarm” model of congressional oversight (McCubbins and Schwartz, 1984) to include other ways in which interest groups may affect oversight.

Table 3.1: How Interest Groups and Public Attention and Pressure May Affect Legislator Behavior

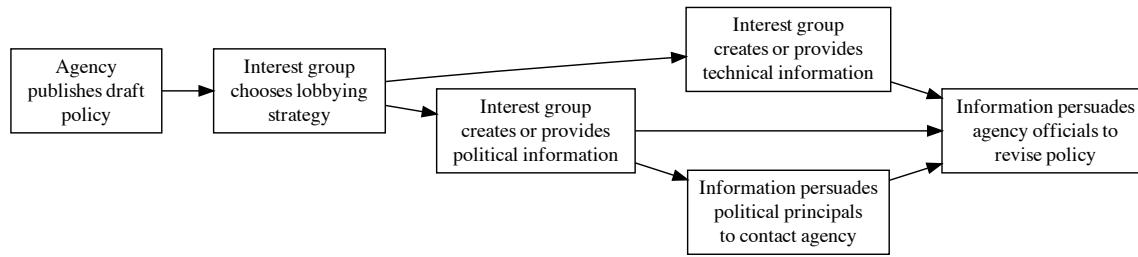
	Legislator Supports Rule	Legislator Opposes Rule
Constituents Support Rule	“Beacon” for credit claiming	“Warning sign” against engaging
Constituents Oppose Rule	“Warning sign” against engaging	“Fire alarm” for oversight

The fire alarm, beacon, and warning sign mechanisms have a common thread: interest groups' public pressure campaigns affect political oversight. To the extent that this is strategic, pressure campaigns aim to influence policy indirectly by affecting the behavior of elected officials.

Figure 3.2 incorporates these insights to the model set out in Figure 3.1. Specifically, it considers how elected officials' decisions to engage in agency rulemaking are affected by political information created by public pressure campaigns *and* create new, additional political information. Figure 3.2 shows two pathways by which lobbying organizations may cause elected officials to contact agency officials. The upper pathway represents the classic "fire alarm" role that interest groups may play in alerting elected officials to oversight opportunities. It also captures the related dynamic where interest groups alert elected officials to opportunities to support agency actions.

The lower causal pathway represents the additional role that I suggest interest groups play in political oversight by generating political information through public pressure campaigns. When lobbying organizations use a public pressure strategy, the political information they create (e.g., about the scale and intensity of public support) may affect agency policymakers directly, as shown in Figure 3.1. Additionally, levels of public support may also affect policy indirectly if it affects the behavior of an agency's political principals (e.g., members of Congress). When political principals contact agency officials, they create at least two additional kinds of political information. First, they express their opinion on what they think the agency should do, which may have normative power for bureaucrats. Second, principals signal political consequences that agencies may want to avoid (Potter, 2017a). Both types of information may persuade agency officials to revise policy documents to address their principals' comments.

Figure 3.2: Direct and Indirect Effects of Political Information: Integrating Public Pressure and Congressional Oversight into a Model of Lobbying in Bureaucratic Policymaking



Public pressure campaigns in bureaucratic policymaking may affect the behavior of an agency's principals because the shadow of public sanction hangs over elected officials (Arnold, 1979; Mayhew, 2000). Moore (2018) finds that agencies that receive more comments per rule are also subject to more congressional hearings. When the public is more attentive, it is more important for officials to take popular positions and avoid unpopular ones. Thus, when a coalition goes public, especially if it generates a perceived consensus in expressed public sentiments, elected officials may be more likely to intervene on their behalf and less likely to intervene against them. Hypotheses 3.5 and 3.6 reflect these intuitions.

3.2.7 Hypotheses about the relationship between mass engagement and oversight

Hypothesis 3.4. Elected officials' engagement in agency rulemaking is positively affected by the scale of public engagement.

If Hypothesis 3.4 is correct, we should observe more members of Congress engaging in policy processes with larger public pressure campaigns. This hypothesis is difficult to test because legislators being mobilized directly by interest groups is often observationally equivalent to legislators being mobilized indirectly due to the

response to a public pressure campaign. Above, I offer anecdotal evidence that legislators are aware of pressure campaigns and see comments from their constituents as important. Still, evidence of correlation is not strong evidence of a causal effect. If, however, we can reject Hypothesis 3.4, this is strong evidence that rulemaking comments from members of Congress are not affected by the scale of public attention.

Hypothesis 3.5. Public pressure campaigns attract oversight from allies. The more comments supporting a position, the more likely principals holding that position are to engage.

Hypothesis 3.6. Public pressure campaigns reduce oversight from opponents. The more comments opposing a position, the less likely principals holding that position are to engage.

If Hypothesis 3.5 is correct, it would suggest a supplement to Hall and Miler's (2008) finding that legislators are more likely to engage in rulemaking when a like-minded interest group has lobbied them: when interest groups lobby elected officials to engage in rulemaking, they may also be more likely to engage when aligned with the majority of commenters than when opposed to them. If elected officials learn from political information, then they will be even more likely to engage when lobbied by a coalition that includes public interest groups running a mass-comment campaign, and less likely to engage when opposed by a large mass comment campaign.¹

¹Of course, if Members of Congress receive signals about the distribution of comments from their districts, the distribution of opinions in their district constituency may be more important. Figure 2.4 shows that the Sierra Club requires that commenters enter their zip codes. Mass-mobilizers may often send such information to elected officials.

Alternatively, the effect of mass engagement on legislators may be asymmetric. Mass engagement may only mobilize or only demobilize. For example, if legislators are risk-averse, they may avoid engaging in contentious rulemaking processes regardless of the balance of comments. Or, elected officials may be attracted to oversight opportunities but not dissuaded by mobilization on the other side because they assume their voters share their position. These results would be evidence against Hypothesis 3.5 and Hypothesis 3.6, respectively.

I thus build on the “classic model” of political oversight in two ways. First, I suggest that such oversight behaviors may be affected by public pressure campaigns because of the impressions of public opinion (i.e., the political information) they create. This is represented by the arrow between “Organization generates political information” and “Political principals contact agency officials” in Figure 3.2.

Second, I suggest that elected officials’ comments during rulemaking are a particularly relevant oversight behavior and a mechanism by which bureaucrats learn and update beliefs about their principals’ demands. This is represented by the arrow between “Political principals contact agency officials” and “Agency officials revise policy” in Figure 3.2. The mechanism is labeled “Information persuades agency officials,” which includes information about principal opinions and perceived political consequences.

3.3 Testing the Theory

3.3.1 Data: A Census of Public Comments

To examine the relationship between public pressure campaigns and lobbying success, I use an original dataset (introduced in Section 2.3.1) that combines several data sources on U.S. federal agency rulemaking.

The core data for this analysis are the texts of draft and final rules and public comments on these proposed rules published from 2005 to 2020. This includes all proposed rules from 161 agencies that were open for comment on regulations.gov between 2005 and 2020, received at least one comment from an organization, and saw a final agency action between 2005 and 2020. These 44,774 rulemaking dockets received a total of 58,380,146 comments.

I collected draft and final rule texts from federalregister.gov and comments submitted as digital files or by mail from regulations.gov. I also retrieve comments submitted directly on regulations.gov and metadata on rules and comments (such as the dates that the proposed rule was open for comment and whether the agency identified the organization submitting the comment) from the regulations.gov Application Programming Interface (API). I add additional metadata on rules (such as whether the rule was considered “significant”) from the Unified Agenda published by the Office of Information and Regulatory Affairs (reginfo.gov).

Where a new presidential administration used the same docket number to solicit comments on a proposed rule that a previous administration used, I count these as separate rulemaking dockets. I do so because the second policy usually reverses or moves policy in the opposite direction of the previous administration. The same organizations often comment on both policies but with opposite positions. Support becomes opposition and vice versa.

3.3.1.1 Clustering with text reuse

My theoretical approach requires that I *attribute* form letter comments to the organizations, campaigns, and broader coalitions that mobilized them. To do so, I identify comments that share text. I find that a 10-word phrase repeated across more than a few comments is always either text copied from the proposed policy or

a form letter provided by a campaign. Thus, for each comment text, I first remove all 10-word phrases that appear in the proposed rule (including the preamble and call for comments). Then, I identify all comments that share ten-word phrases with 99 or more other comments. Finally, I collapse these form letter comments to one representative document for hand-coding.

I attempt to identify the organization(s) that submitted or mobilized each comment by extracting all organization names from the comment text. For comments that do not reference an organization, an internet search using portions of the comment's text often identified the organization that provided the form letter text. I then identify lobbying coalitions both by hand and by textual similarity. Co-signed comments are always assigned to the same coalition. Likewise, form-letter comments are always assigned to the same coalition.

Through the iterative combination of automated search methods and hand-coding described in Section 2.3.2, I attribute each comment to the organization behind it (its author if submitted by the organization or the mobilizing organization for form letters). I also identify comments submitted by elected officials, with special attention to members of the U.S. Congress.

Because my hypotheses are about the influence of organizations and coalitions, I collapse these data to one observation per organization or coalition per proposed rule for analysis. I then identify the main substantive comment submitted by each organization's staff or lawyers, which are usually much longer than supporting comments like form letters.

3.3.1.2 Hand-coded sample

To estimate the influence of public comments on policy, I use hand-coded comments on a random sample of rulemaking dockets. For each rule in the sample,

almost all comments are hand-coded for their level of lobbying success. Hand-coding includes recording the type of organization, the lobbying coalition to which each comment belongs, the type of coalition (primarily public or private interests), their policy demands, and the extent to which the change between the draft and final rule aligned with their demands. This level of alignment between policy demands and policy outcomes is my measure of lobbying success. It does not identify a causal relationship (true policy influence), but it is the standard approach for assessing lobbying success with these kinds of observational data (see Yackee and Yackee, 2006). For a more detailed description of the coding process, the codebook is available in Appendix A.

I first selected a random sample of 172 proposed rules with both a mass-comment campaign and a final rule. I then selected all comments that were likely to be from organizations.² The hand-coding process included identifying the organization responsible for each comment submitted by an organization (e.g., a business, non-profit, or government).

I then selected a sample of 43 proposed rules on which the same organizations commented without a mass comment campaign. While most studies of mass comment campaigns to date have focused on the Environmental Protection Agency, my combined sample rules come from 60 agencies. Additionally, my sampling approach includes rules with very small and very large numbers of comments that previous studies exclude.

I include all comments submitted as file attachments or emails, but only some comments typed in a text box. Sophisticated lobbying organizations almost always submit comments as file attachments. I include comments typed in a text box if

²Through an iterative process described in 2.3.2, I developed software and methods to select comments that were most likely submitted by organizations rather than by individuals. For example, I include all comments submitted as file attachments rather than typed into the textbox.

they share text with other comments, indicating they are part of a pressure campaign. This includes nearly all comments on most rules. I exclude entirely unique textbox contents and comments shorter than ten words. Most textbox comments and nearly all extremely short comments are trivial (e.g., “This sucks”). While form letters are often short, they are very unlikely to be less than ten words. For comments sharing text, I code one sample document for all versions of the form letter.

My approach to measuring lobbying success starts with policy demands raised in comments. The dimensions of conflict on which I judge lobbying success are those issues identified by commenters. Unlike other studies, the issues I use to assess lobbying success do not come from first reading the policy or of any a priori concept of what each policy fight is about. Instead, I read the change between draft and final rule with an eye for alignment with commenters’ requests (including requests that specific parts of the draft policy do not change.)

Using commenter requests to identify the dimensions of the conflict has advantages and disadvantages. Compared to other potential measures of success, it is more likely to focus on things that commenters care about and miss policy issues that other, non-commenting segments of the public might care about.

Other approaches to identifying the commenter’s relationship with policy changes have different strengths and weaknesses. For example, one could measure success by the number of times a comment is mentioned in the agency’s response to comments. However, this measure may be affected by strategic responsiveness by agencies choosing to discuss some issues more than others. It also counts explicit rejections toward the measure of responsiveness. One could also measure success by focusing on a priori potential aspects of the policy. Balla et al. (2020) count five factors: (1) the number of regulated entities, (2) the number of activities or sub-

Table 3.2: A Sample of Hand-coded Public Comments

Docket ID	Coalition	Comment type	Organization	Position	Success
DOT-OST-2018-0068	AAAE	Org	Finnair Plc	Supports Rule	2
FEMA-2016-0003	AASA	Org	Aasa. Aesa	Opposes Rule	2
FEMA-2016-0003	AASA	Org	Sam Walton	Opposes Rule	2
OCC-2020-0026	ACLU	Org	ACLU	Opposes Rule	-2
OCC-2020-0026	ACLU	Org	Hoosier Action	Opposes Rule	-2
PHMSA-2012-0082	AFL-CIO	Org	AFL-CIO	Supports Rule	-2
PHMSA-2012-0082	AFL-CIO	Org	City Of Skokie	Supports Rule	-2
ED-2016-OESE-0032	AFT	Org	AFT	Supports Rule	1
USCIS-2006-0044	AILA	Org	Centro Romero	Opposes Rule	-1
USCIS-2006-0044	AILA	Org	World Relief	Opposes Rule	0
WHD-2019-0001	ANCOR	Org	Easterseals	Supports Rule	-2
WHD-2019-0001	ANCOR	Org	Leadingage	Supports Rule	-2
USCG-2010-0990	BOATU.S.	Org	Boatu.s.	Opposes Rule	-1
CFPB-2019-0006	CFSA	Elected	Nolan Mettetal	Supports Rule	2
CFPB-2019-0006	CFSA	Elected	Mike Osburn	Supports Rule	2
IRS-2019-0039	CLC	Elected	Steve Bullock	Opposes Rule	-2
IRS-2019-0039	CLC	Org	Issue One	Opposes Rule	2
ETA-2020-0006	CUPA-HR	Org	TECHNET	Supports Rule	1
USCBP-2007-0064	EAA	Org	Sas Institute	Supports Rule	1
FWS-R9-ES-2008-0093	EARTHJUSTICE	Individual	SOCALXJ	Opposes Rule	-2

stances being regulated, (3) the level of pollution standards, (4) the compliance and effective deadlines of the regulation, and (5) the monitoring and reporting requirements. Each takes one value (increasing or decreasing), and each is weighted equally in the analysis. In contrast, by starting with comments, my method relies on commenters to define the dimensions of conflict and highlight the issues they care most about. In this sense, my approach focuses on “the first face of power”—issues that are already on the agenda of the broader policy system.

The hand-coded sample includes 10,894 hand-coded documents representing over 41 million comments (including both mass comments and the sophisticated comments they support).

Table 3.2 shows a sample of hand-coded public comments. Docket ID is the identifier for each rulemaking. The Organization, Comment Type, and Coalition columns show how coders record the name and type of each organization or elected official, as well as the broader coalition to which they belong. The name assigned to each coalition is usually the name of one of the lead organizations.

The Position column in Table 3.2 is a collapsed version of the spatial position-coding described in Section 2.3.2.4 and Appendix A. To create a binary measure of support and opposition, I collapse the coding of each comment's spatial position into a dichotomous indicator of whether they ultimately support or oppose the rule. Finally, Lobbying Success—whether each comment got what it asked for in the change between a draft and final rule—is coded on a five-point scale from 2 to -2. “2” indicates that most of the commenter's requests were met. If the rule moved decidedly in the opposite direction as they would have liked it to move, this is coded as a “-2” (the opposite of total success). To measure these variables at the coalition level, I use the coding assigned to the lead organization or the average across coalition members. Because “lead” organizations are identified based on their leadership role in the coalition and the extent to which they represent the coalition's policy demands, the lead organization's coding is nearly the same as the average across coalition members in all cases.

Table 3.3 shows the organizations that commented on the most rules in this sample: 467 organizations lobbied on more than one rule in the hand-coded data, some on as many as -Inf rulemaking dockets. Recall that this sample of rules is weighted toward rulemaking dockets that received more comments. Thus, the organizations lobbying on the most rules are not the same as those in the overall population. For example, recall from Table 3.2 that the American Petroleum Institute lobbied on nearly 400 rules, whereas the Pew Charitable Trusts lobbied on 120. Pew, how-

Table 3.3: Organizations by Number of Rules on Which They Commented in the Hand-coded Data

Organization	Rules Lobbied On
U.S. Chamber of Commerce	28
Natural Resources Defense Council	10
OCEANA	10
Earthjustice	9
National Audubon Society	8
Sierra Club	8
American Petroleum Institute	7
Center For Biological Diversity	7
Edison Electric Institute	7
National Association Of Manufacturers	7
National Wildlife Federation	7
Pew Charitable Trusts	7
AFL-CIO	6
NAACP	6
National Association Of Home Builders	6
National Mining Association	6
Port Gamble S'klallam Tribe	6
Public Citizen	6
Quinault Indian Nation	6
American Bankers Association	5

ever, used a public pressure campaign 5 percent of the time it lobbied, whereas the American Petroleum Institute used a public pressure campaign 0.3 percent of the time it lobbied. Thus, groups like Pew that more often use pressure campaigns are more likely to be lobbying on rules in this sample. While this sampling approach was necessary (a random sample of all rules would yield almost none with a pressure campaign), the statistical results should be interpreted as disproportionately reflecting variation in lobbying success in high-salience and contentious rulemakings.

Table 3.4 shows the number of hand-coded rules, documents, the coalitions and organizations to which those documents belong, and the total number of comments they represent for a sample of agencies. As expected with a random sample, the agencies with the most rules in this sample are also those with the most final rules posted to regulations.gov (as shown in Figure 2.5). The Environmental Protection Agency (EPA), Fish and Wildlife Service (FWS), and National Oceanic and Atmospheric Agency (NOAA), Department of Transportation (DOT), and Internal Revenue Service (IRS) are all in the top ten agencies by the number of rulemaking dockets on regulations.gov. The Bureau of Safety and Environmental Enforcement, Consumer Financial Protection Bureau (CFPB), and Wage and Hour Division (WHD) of the Department of Labor are all above average and have a disproportionate number of rules with a large number of comments, making these agencies more likely to be selected into the weighted sample. Table 3.4 also illustrates how my method of collapsing documents with repeated text to one representative document allows me to reduce the number of documents requiring hand-coding by several orders of magnitude (compare the “Documents” and “Comments” columns).

Figure 3.3 shows hand-coded support and opposition to proposed rules by different types of commenters and presidential administration. Support and

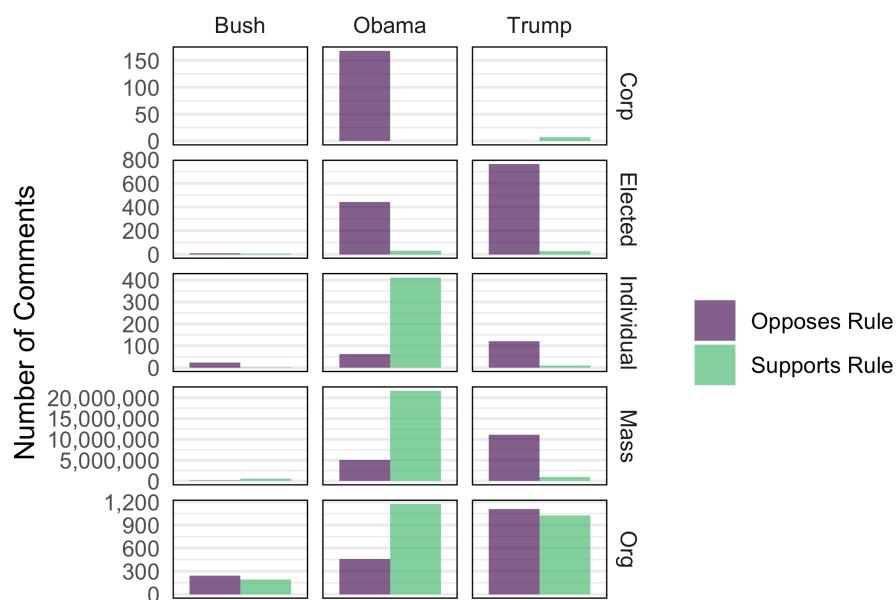
Table 3.4: Hand-coded Data By Agency

Agency	Rules	Documents	Coalitions	Organizations	Comments
EPA	74	2,507	111	628	25,973,707
FWS	18	1,090	34	577	6,957,420
NOAA	9	402	30	195	598,932
IRS	8	69	11	55	128,530
WHD	6	328	13	227	367,088
BLM	5	222	10	56	2,152,628
CMS	5	321	6	10	466,448
HUD	5	12	6	11	26,393
BSEE	4	259	13	205	245,370
FDA	4	59	5	12	447,079
CFPB	3	1,935	19	862	1,104,506
OSHA	3	165	6	71	85,743
USCIS	3	189	7	106	49,982
DOT	2	145	8	109	145
ETA	2	72	7	49	82,837
FNS	2	118	2	31	177,077
ICEB	2	338	5	92	2,082
NPS	2	110	4	73	347,315
OCC	2	122	6	106	267
OFCCP	2	192	5	32	13,617

opposition coding come from the spatial position regarding the draft and final rule, as shown in Figure 2.10. Comments from a corporation (“Corp.”) were overwhelmingly opposed to Obama-administration policies and more supportive of Trump-administration policies. Elected officials more often write in opposition than in support of a proposed rule across administrations. In contrast, individuals, organizations, and the mass comments these organizations mobilized overwhelmingly supported Obama-administration policies and opposed Bush- and

Trump-administration. Mass and individual comments are especially polarized. This reflects the partisan asymmetry in mobilizing organizations; the individuals (unique comments) and mass comments (form letters) mobilized by progressive public interest groups' campaigns overwhelmingly supported Obama-era policies and opposed Trump-era policies.

Figure 3.3: Hand-coded Comments By Type and Position on Proposed Rule



Most of these comments belong to lobbying coalitions and are thus not independent observations. When Friends of the Earth and the Sierra Club lobby together on a rule, the success of each depends on the other. Thus, I group comments into coalitions. The hand-coded sample includes 480 “coalitions,” 196 of which are single-organization “coalitions” (not coalitions), leaving 284 true coalitions of multiple organizations lobbying together.

Lobbying coalitions range in size from 2 to 243 organizations. Table 3.5 shows a sample of coded data, summarized at the coalition level. Even though the same

organization may lead coalitions in multiple rulemakings, each rule's lobbying coalitions are different, so I consider them separate observations. For example, the American Civil Liberties Union (ACLU) led a coalition in 2014 with a small number of organizations and a medium-size pressure campaign in support of a rule requiring additional Equal Employment Opportunity reporting from the Department of Labor's Office of Federal Contract Compliance Programs (OFCCP). The ACLU also led a very different coalition in 2020 with a large number of organizations and a very small public pressure campaign against a rule rolling back regulations on banks published by the Office of the Comptroller of the Currency (OCC). Figure 3.6 shows that this sample is fairly balanced between coalitions that succeed and fail to get the changes they seek in the final rule.

Table 3.6 shows the number of coalitions coded as “public interest” and “private interest” by whether the majority of organizations in the coalition are for-profit businesses and trade associations or non-businesses (governments and nonprofits): 29 percent are majority business coalitions. 66 percent are public-interest coalitions. As Table 3.6 shows, the hand-coded “public interest vs. private interest” distinction is highly correlated with the share of businesses in the coalition but not perfectly. These two measures diverge in cases where public interest coalitions mobilize a large number of business allies or where private interest coalitions mobilize a large number of non-business allies. Thus, while the share of businesses and trade associations is more objective, the public-private distinction is likely a better measure of coalition type. I estimate alternative models in Section 3.4 with each measure.

Several coalitions may lobby on the same rule. One coalition's lobbying success is correlated with another coalition's lobbying success to the extent that they are asking for the same or contradicting policy changes. However, by grouping organizations into coalitions, I account for many of the causally-related policy requests

Table 3.5: A Sample of Hand-coded Data Summarized by Coalition

Docket ID	Coalition	Position	Size	Businesses	Type	Mass
NPS-2018-0007	ACLU	Opposes Rule	57	2	Public	69,617
OCC-2020-0026	ACLU	Opposes Rule	75	0	Public	158
OFCCP-2014-0004	ACLU	Supports Rule	11	0	Public	7,142
ICEB-2015-0002	AFL-CIO	Supports Rule	5	2	Public	0
USCIS-2010-0017	AFL-CIO	Opposes Rule	2	0	Public	0
ED-2016-OESE-0032	AFT	Supports Rule	3	0	Public	0
TREAS-DO-2007-0015	AHC	Supports Rule	1	0	Private	0
DEA-2018-0005	AMA	Supports Rule	3	3	Public	0
CEQ-2019-0003	AMWA	Opposes Rule	1	0	Public	0
CFPB-2016-0025	CBC	Supports Rule	1	0	Public	0
ETA-2020-0006	CUPA-HR	Supports Rule	6	4	Public	0
CEQ-2019-0003	EOMA	Supports Rule	1	1	Private	0
WHD-2019-0001	EPI	Opposes Rule	55	5	Public	56,949
WHD-2019-0003	EPI	Opposes Rule	40	1	Public	44,352
CEQ-2019-0003	EPIC	Supports Rule	1	0	Public	0
DEA-2018-0005	HSCA	Opposes Rule	10	3	Public	0
DOT-OST-2018-0068	IAADP	Supports Rule	10	1	Public	0
OCC-2011-0014	ISDA	Supports Rule	1	1	Private	0
ETA-2020-0006	ITSERVE	Opposes Rule	15	9	Private	0
CEQ-2019-0003	LIUNA	Supports Rule	228	134	Private	4,991

Table 3.6: Types of Lobbying Coalitions in the Hand-coded Sample

Coalition Type	Business led	Non-business led	Mass comments	No mass comments
Private	120	31	61	97
Public	20	270	183	134

Table 3.7: Comments from Elected Officials in the Hand-coded Data

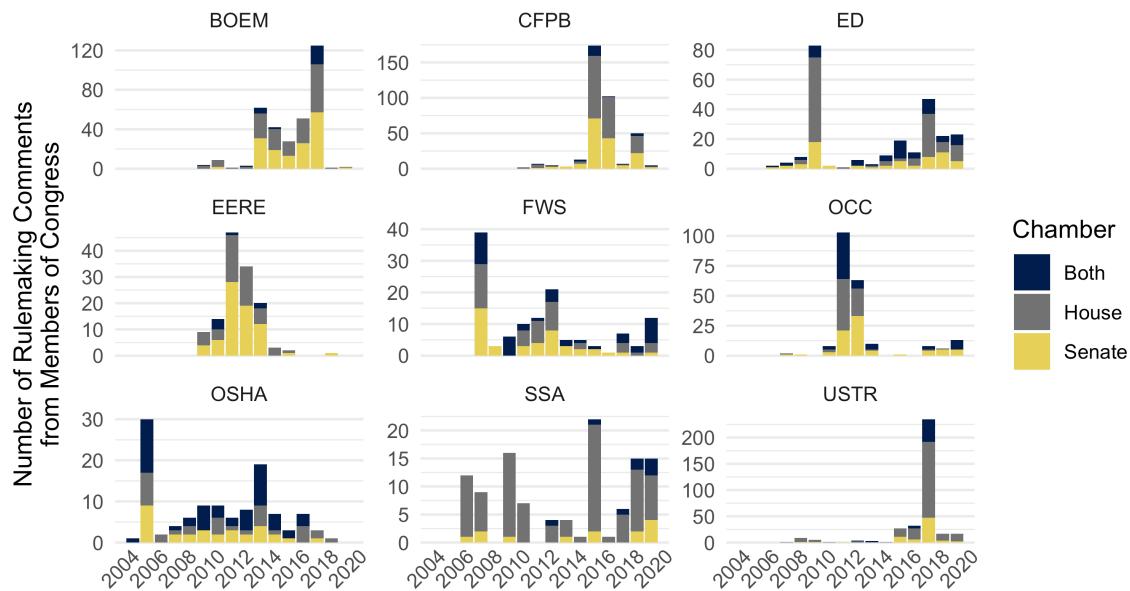
Elected Official Type	n
Senate	82
House	61
State Elected Official	55
Local Elected Official	15
Governor	13

(those organizations lobbying on an issue *because* another organization is lobbying on that issue).

3.3.1.3 *Comments from Legislators*

One mechanism by which campaigns may influence policy is by mobilizing members of Congress. Thus, I identify comments submitted by members of Congress and count the number of legislators in each lobbying coalition. Figure 3.4 shows the number of comments from members of Congress received during rulemaking by a sample of federal agencies. There is massive variation in the level of attention that members of Congress pay to different agencies and rules. The spikes in attention to each agency correspond with public pressure campaigns targeting rules from that agency. Oversight letters are frequently co-signed by multiple members from the Senate, House, or both chambers. Some of the rules on which members of Congress commented appear in the hand-coded sample. Table 3.7 shows the number of comments from the most common types of elected officials in the hand-coded data. Members of the U.S. House and Senate are the most common.

Figure 3.4: Number of Rulemaking Comments from Members of Congress per Year, 2005-2020 to the Bureau of Ocean Energy Management (BOEM), Consumer Financial Protection Bureau (CFPB), Department of Education (ED), Office of Energy Efficiency and Renewable Energy (EERE), Federal Aviation Administration (FAA), Fish and Wildlife Service (FWS), Office of the Comptroller of the Currency (OCC), Occupational Safety and Health Administration (OSHA), Social Security Administration (SSA), U.S. Trade Representative (USTR)



3.3.1.4 The Dependent Variable: Lobbying Success

The dependent variable is the extent to which a lobbying coalition got the policy outcome it sought, which I measure in several ways.

First, on a sample of rules, I trained a team of research assistants to hand-code lobbying success for each organization or elected official, comparing the change between the draft and final rule to each organization's demands on a five-point scale from "mostly as requested" to "significantly different/opposite from requested direction" as described in Section 2.3.2. Additionally, for each comment, coders identify the main overall policy demand, the top three specific demands, and the corre-

sponding parts of the draft and final rule texts. This does not capture rule changes on which no organization commented. While such changes may be significant, they are not helpful for measuring lobbying success.

Lobbying success on each specific demand was then coded for each organization and coalition. Both the overall score and average score across specific demands both fall on the interval from -2 (“significantly different”) to 2 (“mostly as requested”). A team of undergraduate research assistants then applied the codebook to all comments likely to be from organizations or elected officials on a random sample of rules. Several rules were double-coded by the whole team.

In the models below, *coalition lobbying success* is the mean of hand-coded lobbying success on a five-point scale, {-2, -1, 0, 1, 2}.

The average hand-coded success per organizational comment is zero ($N = 10,894$). The average success for organizational comments with a mass comment campaign is -0.414 ($N = 8,632$).

3.3.1.5 The Main Predictor Variable

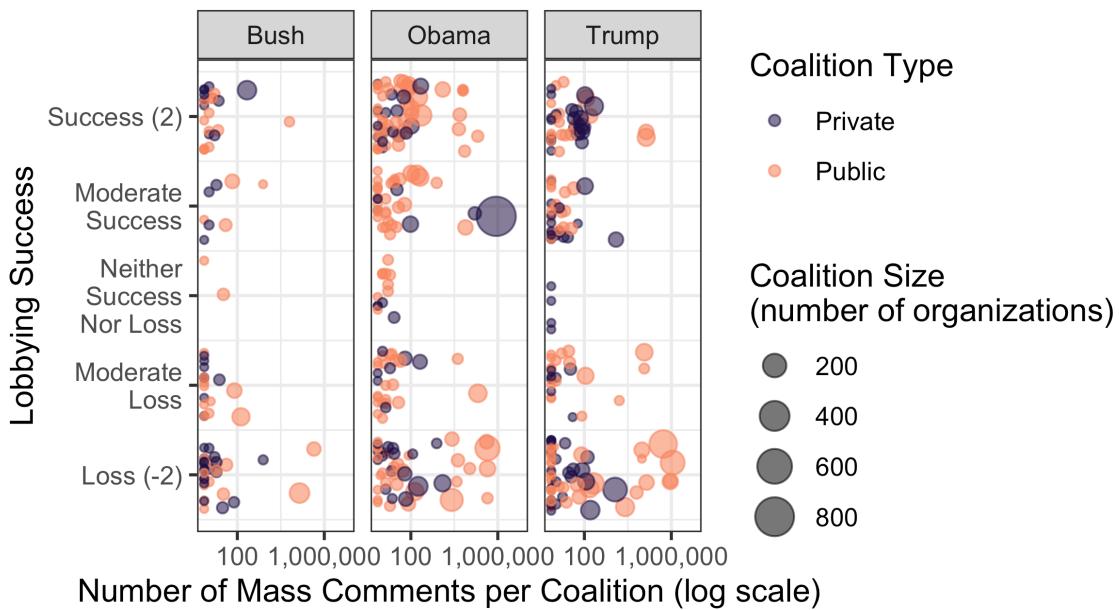
The number of supportive comments generated by a public pressure campaign (the main variable of interest) is a tally of all comments mobilized by each organization or coalition that ran a mass-comment campaign on a proposed rule. Because the marginal impact of additional comments likely diminishes, models typically include either the logged number of comments or a quadratic term to account for non-linear effects. If a coalition mobilizes more than 99 form-letter comments on a proposed rule, I code that coalition as having a mass comment campaign (*campaign* = 1). Where a coalition only submits technical comments from lawyers and does not mobilize public support, the binary measure, *campaign*, and the numeric measure, *mass comments*, are 0.

Figure 3.5 shows a scatterplot of the dependent variable (*lobbying success*) and main predictor (*mass comments*) for each coalition. Coalition lobbying success ranges from total success (2) to total loss (-2). The number of mass comments ranges from 0 to 3,012,281. The size of each point represents the size of each coalition (the number of organizations and elected officials). The color indicates whether the coalition is led by private or public interest groups. For example, one extremely large private coalition of payday lenders mobilized over a million comments during the Obama administration. This coalition was moderately successful at reducing the stringency of the regulation but did not stop it from going through.

The view of the data in Figure 3.5 does not show a clear relationship between public pressure and lobbying success. There were relatively more (and more successful) public interest campaigns in the Obama years. Likewise, there were more (and more successful) private interest campaigns in the Trump years. As predicted in 2.2, the largest campaigns are mostly public interest campaigns, and public interest campaigns are more frequent than private interest campaigns overall.

This approach differs from previous studies of mass comment campaigns in at least two ways. First, my methods allow me to identify coalitions consisting of multiple organizations. Previous studies measure mass comment campaigns at the organization level. For example, Balla et al. (2020) analyzes “1,049 mass comment campaigns that occurred during 22 EPA rulemakings”—an average of nearly 50 “campaigns” per rule. By “campaign,” Balla et al. (2020) mean an organization’s campaign rather than a coalition’s campaign. Especially on EPA rules, there are rarely more than two or three coalitions engaging in public pressure campaigns—one of the environmental advocacy groups and their allies, another of regulated industry groups and their allies. Using organizations as the unit of analysis means that observations are far from independent. An analysis that counts one coalition’s cam-

Figure 3.5: Lobbying Success by Number of Supportive Comments



paign as 40 smaller “campaigns” with the same policy demands would count this one campaign as 40 observations.

In contrast, my methods allow me to measure levels of public pressure and lobbying success per organization *and* per coalition. Like previous studies, I identify the organizations responsible for mobilizing comments. Where other studies leverage the fact that the EPA gathers substantially similar comments, I am able to identify mass comment campaigns across dozens of federal agencies. Additionally, I further link common efforts by multiple organizations lobbying in a broader coalition. This allows for analysis with the lobbying coalition as the unit of analysis. By measuring comments per coalition, both through hand-coding and text reuse, I capture different levels of public pressure than we would see if we were only measure the number of comments per organization.

The second major difference between my approach and previous research is that I do not compare policymakers’ responses to sophisticated comments to policymak-

ers' responses to mass comments. Rather, I *attribute* mass comments to organizations and coalitions that also submit sophisticated technical comments. The set of comparisons one makes is critical to any study of responsiveness or policy influence. Researchers may reach different conclusions if they compare different things. Consider a study comparing how agencies respond to Sierra Club form letters to how they respond to the Sierra Club's sophisticated comments. Now consider a study that compares responsiveness to the Sierra Club's sophisticated comments between rules where they did and did not run a mass comment campaign. A study comparing the average influence of form-letter comments to the average influence of sophisticated comments is very different from a study that compares the influence of two sets of sophisticated comments with different *levels* of public pressure behind them. Where previous studies take the former approach, I take the latter.

3.3.1.6 Other predictor variables

Other predictors of lobbying success in the models below include the *size* of the lobbying coalition, whether the coalition is a *business coalition*, and whether the coalition is lobbying *unopposed*. The number and type(s) of organization(s) is an attribute of each coalition (e.g., a *business* coalition with N organizational members).

Coalition size is a count of the number of organizations lobbying together on the rule, i.e., the number of distinct commenting organizations in each coalition. For organizations lobbying alone, *coalition size* is 1. *Coalition* is an indicator variable for whether the organization is lobbying in a coalition. It takes a value of 0 when *coalition size* is 1 and 1 if *coalition size* is greater than 1. A coalition is *unopposed* when no opposing organizations comment. This is derived from the hand-coded spatial position of each comment. If an organization supports the proposed rule and others oppose it, they have opposition. Likewise, if an organization opposes a proposed

rule and others support it, they have opposition. However, if multiple coalitions support (or oppose) the rule for different reasons (e.g., one coalition would like one provision added while another coalition would like a different provision added), a rule may have multiple unopposed lobbying coalitions.

I code a coalition as a *business* coalition if the majority of commenting organizations are for-profit businesses and trade associations. *Business* is binomial. Alternative models in the Appendix use the number and share of businesses in a coalition instead.

3.3.1.7 Examples of hand-coded lobbying success

A rule with a public pressure campaign: the 2015 Waters of the United States Rule: In response to litigation over the scope of the Clean Water Act, the Environmental Protection Agency and Army Corp of Engineers proposed a rule based on a legal theory articulated by Justice Kennedy, which was more expansive than Justice Scalia's theory. The Natural Resources Defense Council (NRDC) submitted a 69-page highly technical comment "on behalf of the Natural Resources Defense Council..., the Sierra Club, the Conservation Law Foundation, the League of Conservation Voters, Clean Water Action, and Environment America" supporting the proposed rule:

We strongly support EPA's and the Corps' efforts to clarify which waters are protected by the Clean Water Act. We urge the agencies to strengthen the proposal and move quickly to finalize it... (EPA-HQ-OW-2011-0880-16674)

I coded this as support for the proposed rule. Specifically, NRDC would like the EPA to move policy further in the same direction. NRDC makes four substantive requests: one about retaining language in the proposed rule ("proposed protections

for tributaries and adjacent waters...must be included in the final rule") and three proposed changes ("we describe three key aspects of the rule that must be strengthened").³ I also coded it as requesting speedy publication. These demands provide specific keywords and phrases for which to search in the draft and final rule text. By comparing the requested policy outcomes to the text of the final rule, I evaluate the extent to which NRDC got what it asked for.

A coalition of 15 environmental organizations mobilized over 944,000 comments. Over half (518,963) were mobilized by the four organizations mentioned in NRDC's letter: 2421,641 by Environment America, 108,076 by NRDC, 101,496 by Clean Water Action, and 67,750 by the Sierra Club. Other coalition partners included EarthJustice (formerly a part of the Sierra Club, 99,973 comments) and Organizing for Action (formerly president Obama's campaign organization, 69,369 comments). This is one of the larger campaigns in the dataset. This coalition made sophisticated recommendations and mobilized a million people in support of NRDC's sophisticated lobbying.

The final rule moved in the direction requested by NRDC's coalition, but to a lesser extent than requested—what I code as "some desired changes." As NRDC et al. requested, the final rule retained the language protecting tributaries and adjacent waters and added some protections for "other waters" like prairie potholes and vernal pools. EPA did not alter the exemptions for ditches and waste treatment systems.

For this coalition, the dependent variable, *Lobbying success* is 1 on the scale from

³NRDC's three policy demands were: (1) "The Rule Should Categorically Protect Certain "Other Waters" including Vernal Pools, Pocosins, Sinkhole Wetlands, Rainwater Basin Wetlands, Sand Hills Wetlands, Playa Lakes, Interdunal Wetlands, Carolina and Delmarva bays, and Other Coastal Plain Depressional Wetlands, and Prairie Potholes. Furthermore, "Other 'Isolated' Waters Substantially Affect Interstate Commerce and Should be Categorically Protected Under the Agencies' Commerce Clause Authority." (2) "The Rule Should Not Exempt Ditches Without a Scientific Basis" (3) "The Rule Should Limit the Current Exemption for Waste Treatment Systems"

-2 to 2, *coalition size* is 15, *business* is 0, their position (*supports rule*) is 1, *campaign* is 1, and the number of *mass comments* is 943,931.

2009 Fine Particle National Ambient Air Quality Standards: In 2008, the EPA proposed a rule expanding air quality protections. Because measuring small particles of air pollution was once difficult, large particulates were allowed as a surrogate measure for fine particles under the EPA's 1977 PM10 Surrogate Policy. EPA proposed eliminating this policy, requiring regulated entities and state regulators to measure and enforce limits on much finer particles of air pollution.

EPA received 163 comments on the rule, 129 from businesses, business associations such as the American Petroleum Institute and The Chamber of Commerce, and state regulators that opposed the rule. Most of these were short and cited their support for the 63-page comment from the PM Group, "an ad hoc group of industry trade associations" that opposed the regulation of fine particulate matter. Six state regulators, including Oregon's, only requested delayed implication of the rule until they next revised their State Implementation Plans (SIPs) for Prevention of Significant Deterioration (PSD). EarthJustice supported the rule but opposed the idea that the cost of measuring fine particles should be a consideration. On behalf of the Sierra Club and the Clean Air Task Force, EarthJustice commented: "We support EPA's proposal to get rid of the policy but reject the line of questioning as to the benefits and costs associated with ending a policy that is illegal." The EarthJustice-led coalition also opposed delaying implementation: "EPA must immediately end any use of the Surrogate Policy—either by 'grandfathered' sources or sources in states with SIP-approved PSD programs—and may not consider whether some flexibility or transition is warranted by policy considerations."

The final rule did eliminate the Surrogate Policy but allowed states to delay implementation and enforcement until the next scheduled revision of their Implemen-

tation Plans. I code this as the EarthJustice coalition getting most of what it requested, but not a complete loss for the coalition lobbying on behalf of the regulated industry.

For the PM Group coalition, the dependent variable, *coalition lobbying success* is -1, *coalition size* is 129, *business coalition* is 1, *pressure campaign* is 0, and the number of *mass comments* is 0. For the State of Oregon's coalition, the dependent variable, *coalition lobbying success* is 2, *coalition size* is 6, *business coalition* is 0, *pressure campaign* is 0, and the number of *mass comments* is 0. For the EarthJustice coalition, the dependent variable, *coalition lobbying success* is 1, *coalition size* is 3, *business coalition* is 0, *pressure campaign* is 0, and the number of *mass comments* is 0. These examples are broadly consistent with the overall data—lobbying success in these two examples is the same, despite the large difference in public pressure. This is not consistent with Hypotheses 3.1 or 3.3 that anticipated higher lobbying success with more public pressure.

Figures 3.6 and 3.7 show the distribution of values for coalition-level variables in the hand-coded data. Figure 3.6 shows a wide range of variation for *coalition size* and *lobbying success*, whereas the modal number of *businesses* is concentrated near 0. Most coalitions are between two and twenty members. About half have no business members, but a few have over 100. It is possible for the number of businesses to be larger than the coalition size where the same company sent in multiple comments. This occurs when franchised businesses mobilize local stores to send in letters. Because *coalition size* is the number of unique organizations, these are only counted once, but each is counted in the *businesses* variable.

Figure 3.7 shows that most coalitions in these data include no *members of Congress*, but some have as many as 37. The total number of *mass comments* is somewhat bimodal, reflecting the two random samples of rules from which these

rules come. Most coalitions did not mobilize a pressure campaign and thus have no mass comments, but a few have over a million. The models below use either a binary indicator for mass comments, the logged value, or the number rescaled as hundreds of thousands of comments.

Figure 3.6: Hand-coded Data by Coalition

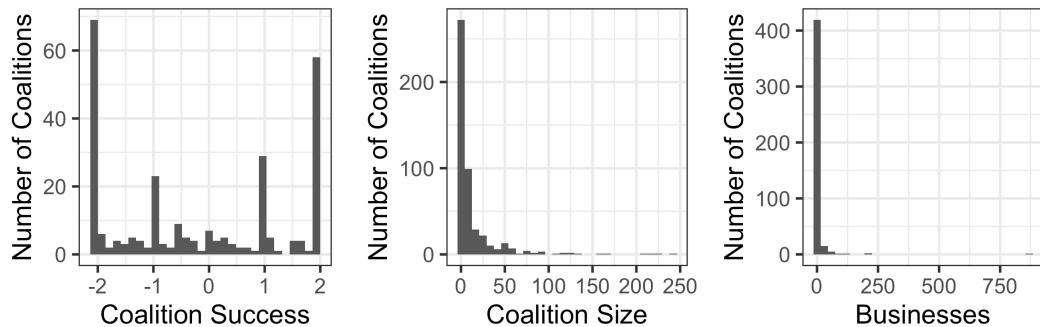
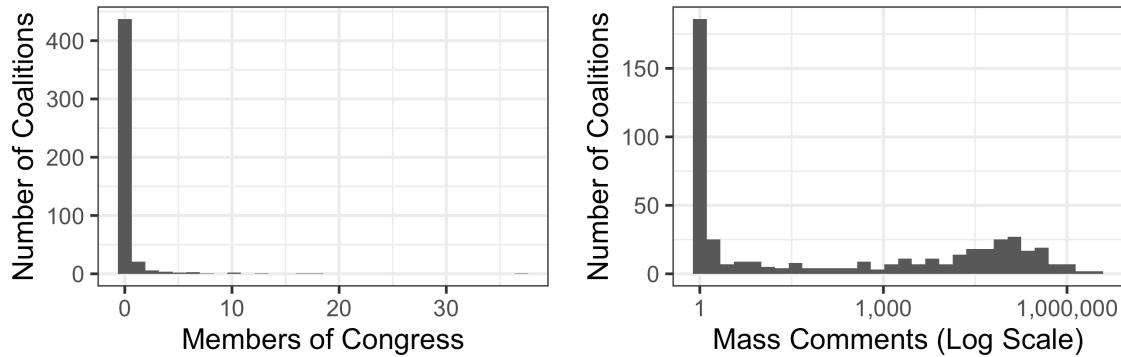


Figure 3.7: Number of Comments Linked to Hand-Coded Coalitions



3.3.1.8 Limitations

The two main limitations of this design both bias estimates of public pressure campaign influence toward zero.

First, lobbying success may take forms other than changes in policy texts. Agencies may speed up or delay finalizing a rule, extend the comment period, or delay

the date the rule goes into effect. Indeed, commenters often request speedy or delayed rule finalization, comment period extensions, or delayed effective dates. While I capture lobbying success concerning timing, my hand-coding approach prioritizes change in policy text, which is more difficult to achieve. Where commenters rand both substantive and procedural (e.g., extended comment period) requests, I coded success concerning the substantive demands.

Second, bureaucrats may anticipate public pressure campaigns when writing draft rules, muting the observed relationship between public pressure and rule change at the final rule stage of the policy process. This is a limitation of all studies of influence during rulemaking comment periods.

3.3.2 Methods

The most direct way to assess the hypothesis that mass engagement increases lobbying success is to assess the relationship between the number of comments mobilized by a coalition and its lobbying success. The dependent variable for most analyses is the organization or coalition's lobbying success, hand-coded on the interval between 2 (total success; the policy changed as requested) to -2 (total loss; the policy changed in the opposite direction requested). However, public pressure campaigns may only be effective under certain conditions. Specifically, pressure campaigns may help some types of coalitions more than others. Thus, I assess both the main relationship between pressure campaigns and lobbying success and the interaction between campaigns and coalition type. I then assess evidence for or against different potential causal pathways of influence. The main indirect pathway by which campaigns may influence agency policymaking is through engaging members of Congress.

These data have a hierarchical structure. Comment-level observations are nested

within an organization, within a coalition, within a rule, within an agency, and an administration. I use a combination of fixed and random effects to account for dependence among observations at higher levels of analysis. The main models use data rolled up to the coalition level. Coalitions range from 1 to over 200 organizations in size and may include anywhere from 1 to over a million comments. Finally, I use a difference-in-difference design to assess variation in success *within* organizations that lobby on multiple rules.

3.3.2.1 Modeling Coalition-level Lobbying Success

The Direct Relationship Between Public Pressure and Lobbying Success

The dependent variable, Y , is the lobbying success of each coalition. To estimate the relationship between a coalition's lobbying success and the scale of public pressure it mobilizes, I model the success of each coalition i lobbying a rule j published by an agency k under a president p . Each coalition is unique to a rule; each rule is unique to an agency (I assigned joint rules to the lead agency only) and presidential administration. I thus use the simpler notation y_i rather than the equivalent, more specific notation y_{ijkp} .

The main variable of interest is the total number of form-letter public comments that a lobbying coalition mobilized. The base model (Equation 3.3) uses an indicator for whether coalition i used a public pressure campaign, i.e., mobilized mass comments (by definition, more than 99 mass comments). β_1 estimates the difference in lobbying success when coalition i uses a pressure campaign compared to when it does not. Other models use either the logged number of comments or a quadratic term to account for the different marginal effects of additional public comments for smaller and larger campaigns.

$$Y_i = \beta_1 \mathbf{Pressure\ campaign}_i + \beta_{2:n} X_i + \gamma_j + \delta_p + \epsilon_i \quad (3.3)$$

The base models include agency and president fixed effects ($\gamma_k + \delta_p$) and control for other coalition-level factors that may affect a coalition's lobbying success, X_i . Controls include whether the coalition is lobbying unopposed, the coalition's size (the number of distinct organizations and elected officials), and the type of coalition (e.g., whether it is a business coalition or a public-interest coalition). $\beta_{2:n}$ are the effects of these other coalition-level factors on lobbying success. I estimate these relationships using OLS regression.

Congressional Support as a Mediator of Lobbying Success To assess congressional support as a mediator in the influence of public pressure campaigns on rulemaking, I estimate the average conditional marginal effect (ACME) and the proportion of the total effect attributed to mediation through congressional support (comments or other communication from Members of Congress supporting the coalition's position on the proposed rule). As developed by Imai et al. (2010), this involves first estimating a model of the potential mediator as a combination of the main predictor, public pressure, and covariates, X_i .

The mediator model (Equation 3.4) estimates the relationship between the scale of public pressure and the number of comments from members of Congress, who may receive political information (e.g., about the level of public attention or public opinion) from public pressure campaigns.

$$\mathbf{Congressional\ Support}_i = \beta_0 + \beta_1 \mathbf{Pressure\ Campaign}_i + \beta_{2:n} X_i + \gamma_k + \delta_p + \epsilon_i \quad (3.4)$$

The outcome model (Equation 3.5) is the same as Equation 3.3, except that it now includes the number of supportive comments from members of Congress as a predictor. y_i is the Lobbying success of coalition i on a rule published by agency k under president p . Pressure Campaign $_i$ is an indicator for whether the coalition organized a pressure campaign, Congressional Support $_i$ is the number of members of Congress supporting the coalition, and X_i are other coalition-level predictors of lobbying success. $\beta_{3:n}$ are the effects of these other coalition-level covariates.

$$Y_i = \beta_1 \text{Pressure campaign}_i + \beta_2 \text{Congressional Support}_i + \beta_{3:n} X_i + \gamma_j + \delta_p + \epsilon_i \quad (3.5)$$

The next section presents results from estimating the above models using the hand-coded data.

3.3.2.2 Difference in Differences in Organization-level Lobbying Success

While it would not be appropriate to compare the lobbying success of organizations *within* a rulemaking (because many organizations belong to the same coalition), we can compare the lobbying success *within* the same organization *across* rules. This limits the analysis to organizations that lobby on multiple policies. The key variation of interest is when organizations lobby with a public pressure campaign versus when they do not.

There is still a (lesser) problem with the i.i.d. assumption because two organizations lobbying in a coalition on one rule may mobilize each other to lobby in coalition on a different rule (in my data, lobbying coalitions are at the policy-level, since they differ from policy to policy).

At the organization level, the appropriate analysis is a difference-in-difference de-

sign. We know the success of each organization when it does and does not participate in a lobbying coalition that mobilizes public pressure (at least each organization that I can use for this analysis). The difference within an organization is now the key variation.

$$Y_{ij} = \alpha_i + \beta_0 + \beta_1 \text{Pressure Campaign}_{ij} + \beta_{2:n} X_{ij} + \gamma_k + \delta_p + \epsilon_{ij} \quad (3.6)$$

Equation 3.6 is similar to the model of coalition-level success except that y_{ij} is now the lobbying success of *organization i* in coalition *j* and X_{ij} is now a vector of organization- and coalition-level controls. Additionally, Equation 3.6 adds α_i , a fixed effect for each organization. This fixed effect accounts for the organization's characteristics that do not vary over time as it lobbies on multiple rules. This difference-in-difference design ensures that coefficient β_1 captures variation related to changes in levels of public pressure and other factors that vary within each organization, not other factors that may vary across organizations.

$\beta_{2:n}$ captures estimates for the effects of other factors that may affect an organization's lobbying success, including coalition size, the difference in the success of organization *i* when they support proposed policy *j* rather than oppose it.

$President_j$ is a dummy for whether policy *j* was proposed by President Trump or Bush rather than President Obama's administration.

Assuming that organizations have parallel trends in their level of success given a level of support, β represents the average effect of changing levels of public pressure on an organization's lobbying success.

3.4 Results: Lobbying Success

This section leverages a random sample of agency rules for which I have hand-coded nearly all public comments. The first subsection presents estimates of the direct relationship between public pressure and lobbying success (Table 3.8). The next subsection presents results of mediation analysis, assessing the support from members of Congress as a mediator for the success of public pressure campaigns (Tables 3.9). The third subsection presents estimates of factors affecting within-organization levels of lobbying success using a difference-in-difference design (Table 3.10).

3.4.1 Coalition-level Lobbying Success

Table 3.8 presents results estimating coalition-level lobbying success as a function of public pressure, coalition size, coalition type, whether the coalition supports the proposed rule, and whether there is an opposing coalition, as described in Equation 3.3.

Models 1 and 2 use a binary measure of public pressure—did the coalition sponsor a public pressure campaign or not? Models 2-6 use continuous measures of public pressure. Models 3 and 4 use the logged number of mass comments, reflecting the intuition that one additional comment matters more for smaller campaigns. Models 5 and 6 include both linear and quadratic terms for the number of comments to allow for a wider array of possible non-linear relationships.

I use two related measures of coalition type. Models 1, 3, and 5 use my classification of coalitions as primarily public or private interests. Private interest is the omitted category, so coefficients are estimates of the difference in lobbying success for public interest coalitions compared to private interest coalitions. Models 2, 4,

and 6 use a related, more objective measure: whether most coalition members are businesses or trade associations.

All models include fixed effects for agency and president to allow for differing average levels of lobbying success at different agencies and political conditions. These models include coalitions of 1 (organizations lobbying alone), but excluding them yields similar results, except that coalition size has a much weaker correlation with lobbying success.

Table 3.8 shows that the main effect of public pressure campaigns, β_1 , in Model 1 is 0.36 (S.E. = 0.49) on the five-point scale of lobbying success. Because these models include interactions with coalition type, the main effect is the estimated effect for the omitted category. In Model 1, this is the effect of a pressure campaign for a private interest group coalition. For public interest groups, the estimate is $\beta_1 + \beta_6$ = NA, reflecting large negative interaction between indicators for public interest coalitions and pressure campaigns (*Pressure Campaign* \times *Public*). Estimates are inconsistent across specifications.

Models 3-6 use continuous measures of the scale of public pressure campaigns. Estimates are inconsistent across specifications, but Models 5 and 6 suggest that the relationship is initially negative and then positive for very large campaigns (the combined effect of the linear and quadratic terms is negative until approximately one million comments). One possible explanation for this result is that only very large campaigns create meaningful information about public demands. In sum, there is little evidence that pressure campaigns (either public or private) increase lobbying success, but there is strong evidence that public interest campaigns are much less successful than private interest campaigns.

The other strongest predictor of lobbying success across all models is whether the organization *supports the rule*. In Model 1, coalitions supporting the proposed

Table 3.8: OLS Models of Coalition-Level Lobbying Success

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Dependent Variable	Lobbying Success	Lobbying Success	Lobbying Success	Lobbying Success	Lobbying Success	Lobbying Success
Pressure Campaign	0.356 (0.316)	-0.520* (0.229)				
Public	0.226 (0.289)		0.195 (0.273)		0.005 (0.227)	
Coalition	-0.227 (0.539)	-0.212 (0.546)	-0.263 (0.529)	-0.306 (0.533)	-0.197 (0.563)	-0.197 (0.566)
Log(Coalition Size)	0.251* (0.106)	0.248* (0.095)	0.305** (0.107)	0.333** (0.096)	0.205+ (0.117)	0.205+ (0.116)
Supports Rule	1.269*** (0.324)	1.295*** (0.327)	1.243** (0.335)	1.251*** (0.326)	1.261** (0.341)	1.261** (0.339)
Pressure Campaign × Public	-1.222* (0.483)					
Business Coalition		-0.021 (0.289)		-0.032 (0.284)		0.001 (0.252)
Pressure Campaign × Business		0.011 (0.753)				
Log(Mass Comments)			-0.047 (0.030)	-0.099*** (0.023)		
Log(Mass Comments) × Public			-0.068+ (0.037)			
Log(Mass Comments) × Business				-0.047 (0.080)		
Mass Comments					-0.532* (0.218)	-0.530* (0.199)
(Mass Comments) ²					0.055* (0.025)	0.055* (0.023)
Num.Obs.	268	268	268	268	268	268
R2	0.319	0.303	0.323	0.321	0.304	0.304
Log.Lik.	-448.990	-452.151	-448.268	-448.620	-451.900	-451.901
Std.Errors	by: agency	by: agency	by: agency	by: agency	by: agency	by: agency
FE: agency	X	X	X	X	X	X
FE: president	X	X	X	X	X	X

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

rule change had an average success 1.27 points greater than those that opposed the rule ($S.E. = 0.19$) on the five-point lobbying success scale. This estimate is fairly consistent across specifications in Models 1-6. This correlation likely reflects a combination of several related dynamics. First, final rules are often published without change from the draft rule. Organizations that support the new proposed rule are thus likely to “succeed” when the status quo (that is, the status quo set in the proposed rule) prevails. Second, organizations that support a proposed rule are necessarily aligned with agency officials’ preferred policy direction. If agency officials change the final rule to further change policy in their preferred direction, such changes often align with organizations that supported the rule. Likewise, if commenters are aligned with agency officials, their suggestions may be more likely to be adopted, even if those suggestions do not exactly push policy further in the same direction. Finally, by selecting proposed rules that had a final rule rather than being withdrawn, this sample is missing some lobbying success by organizations that requested a proposed rule be withdrawn.

In line with previous research, *coalition size* (the number of distinct organizations in a coalition) is correlated with lobbying success (Yackee and Yackee, 2006; Nelson and Yackee, 2012). This is notable because this sample includes rules with much more public attention and many more public comments than those used in previous studies. There is at least some evidence that these findings hold in much more salient and contentious policy fights.

The limited size of this sample means that we lack statistical power to have confidence that the estimates for many of the other variables differ from 0. Unlike previous studies on less contentious samples of rules (Yackee and Yackee, 2006), I find no relationship between business-dominated coalitions (*business coalition*) and lobbying success.

As this sample consists disproportionately of draft rules that received an unusual number of comments, these results are largely based on the variation within high-salience rulemakings.

I now turn to a key variable omitted from the models in Table 3.8: the level of attention and support from an agency's political principals—specifically, members of Congress, which may mediate the effect of public pressure campaigns.

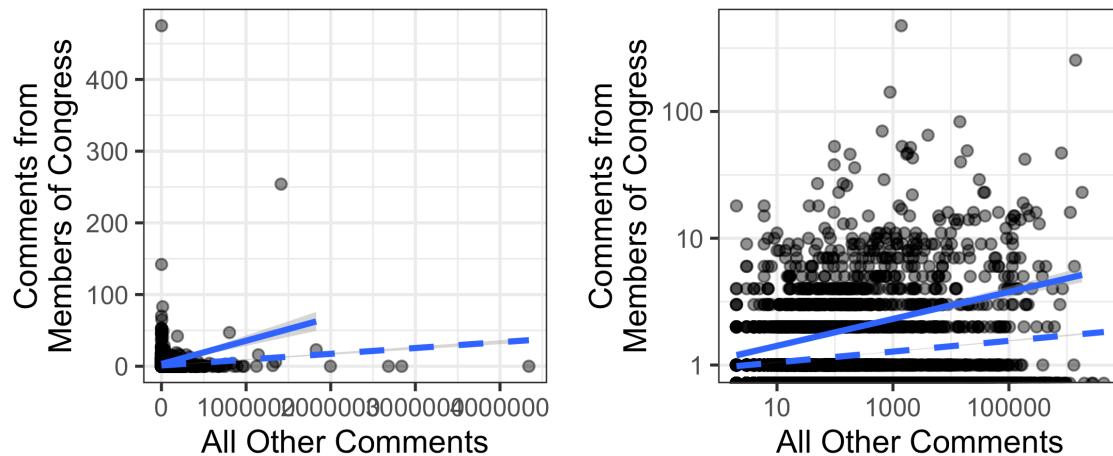
3.4.1.1 Congressional Support as a Mediator of Lobbying Success

Hypothesis 3.4—that the overall level of public attention to a proposed rule moderates the level of attention from members of Congress—implies a correlation between the number of comments from members of Congress and all other comments on each rule. We should assess this correlation both across all rules and rules where at least one legislator commented, making it more plausible that legislators were aware of the rulemaking and thus faced the choice of whether to comment or not.

Figure 3.8 shows both of these relationships. The dashed line shows the relationship between mass comments and comments from members of Congress for all rules. The solid line shows this relationship for rules where at least one legislator commented. The right-hand panel shows this same plot with both axes on a log scale, which allows us to better observe the relationship for rules with relatively fewer comments. There is a strong correlation between mass comments and legislator attention (Spearman's rank correlation, $\rho = 0.24$, p-value = zero). However, for reasons discussed in 3.2.7, this should not be taken as strong evidence of a causal effect.

To assess congressional support as a potential mediator in the influence of public pressure campaigns on rulemaking, I estimate the average conditional marginal effect (ACME, conditional on the number of comments from Members of Congress)

Figure 3.8: Correlation Between Mass Comments and Comments from Members of Congress



and average direct effect (ADE) of mass comments using mediation analysis. To do this, I estimate a model predicting the proposed mediator. Because the dependent variable (the number of supportive comments from members of Congress) is a count and the dispersion parameter is not significantly above 1, a Poisson model is most appropriate.

The first two models in Table 3.9 are similar to those in Table 3.8, but the dependent variable is now the mediator variable (the number of supportive members of Congress). The outcome model is the same as Model 1 in Table 3.8 but includes the proposed mediator, the number of supportive comments from members of Congress. (See Equation 3.4).

By definition, only organizations lobbying in coalition with others have members of Congress in their coalition. Thus I exclude the “coalitions” of 1 organization and omit the indicator of whether the group is lobbying in the coalition from the model. I also subtract the number of members of Congress from the coalition size.

The results shown in Table 3.8 do not offer much support for hypotheses 3.5—that pressure campaigns attract support from legislators—or 3.6—that they reduce

Table 3.9: Regression Models of Congressional Support and Lobbying Success for Mediation Analysis

	Fire Alarm/Beacon Mediator Model (Poisson)	Warning Sign Mediator Model (Poisson)	Outcome Model (OLS)
Dependent Variable	Members of Congress in Coalition	Members of Congress Opposing Coalition	Lobbying Success
Pressure Campaign	0.731+ (0.427)	0.081 (0.370)	0.192 (0.303)
Public	0.911* (0.357)	-0.320 (0.260)	-0.389 (0.328)
Log(Coalition Size)	0.121 (0.142)	0.064 (0.074)	0.156 (0.094)
Supports Rule	-0.470** (0.151)	0.825** (0.266)	1.454** (0.398)
Pressure Campaign × Public	-0.374 (0.264)	0.012 (0.490)	-0.610 (0.455)
Members of Congress			0.008 (0.011)
Num.Obs.	151	151	151
R2			0.425
R2 Adj.			0.276
R2 Within			0.297
R2 Pseudo	0.381	0.443	
AIC	551.0	612.2	516.6
BIC	644.6	705.8	613.2
Log.Lik.	-244.516	-275.112	-226.305
Std.Errors	by: agency	by: agency	by: agency
FE: agency	X	X	X
FE: president	X	X	X

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

legislator opposition. If 3.5 were correct, pressure campaigns should be correlated with the number of supportive letters from members of Congress (the DV in the first column). While the effects are in the expected direction, the coefficient on *Pressure Campaign* in the “Fire Alarm/Beacon” Mediator Model is not significantly different from 0 at the .05 level. If 3.6 were correct, pressure campaigns should be negatively correlated with the number of opposing comments from members of Congress (the DV in the second column). The coefficient on *Pressure Campaign* in the “Warning Sign” Mediator model is also not significantly different from 0.

There is some evidence for relationships other than those hypothesized. Public interest coalitions may be more likely to receive support and less likely to be opposed by members of Congress, all else equal. Public interest coalitions have 0.91 more supportive comments from members of Congress and have 0.32 fewer comments opposing them.

Because members of Congress are overall more likely to oppose proposed changes than organizations and pressure campaigns (see Figure 3.3), there is a negative relationship between supporting a proposed rule and the number of comments from members of Congress in one's coalition. Likewise, there is a positive relationship between supporting a proposed rule and the number of members of Congress opposing one's coalition.

The outcome model results (the third column in Table 3.8) are similar to the results of Model 1 in Table 3.8, despite dropping organizations lobbying alone. Again, the strongest predictor of lobbying success is supporting the direction of policy change. Adding congressional support to the model improves the model fit over Model 1 in Table 3.8 (comparing R-squared and log-likelihood). The number of supportive comments from members of Congress is associated with a 0.01 point difference in lobbying success (S.E. = 0.03).

While there is some evidence that public pressure campaigns affect the proposed mediator—support from members of Congress—there is little evidence for the main relationship of interest. Given this, the proposed mediation analysis does not offer much additional leverage on the hypotheses. The average effect of a public pressure campaign on lobbying success, conditional on letters from members of Congress (the ACME), is -0.08 on the 5-point scale, with a p-value of 0.128.

3.4.2 Difference in Differences in Organization-level Lobbying Success

I now turn from assessing variation *across coalitions* to variation *within organizations* as they lobby in multiple coalitions across policies and over time. Estimates in Models 1 of Table 3.10 show the results of estimating Equation 3.6. Model 2 presents results from a similar model with fixed effects for each rule rather than for each agency. Model 3 includes indicator variables for each president interacted with the main variables of interest (whether an organization lobbies with a coalition that mobilizes public pressure and whether an organization lobbies with a public or private interest coalition).

Like the coalition-level models in Table 3.8, organizations were more likely to get their desired result when they supported the proposed rule. The effect sizes are smaller in the difference-in-difference specification but significantly different from zero.

The most notable result from models 1 and 2 is the negative correlation between lobbying success and the number of pressure campaigns organized by public interest groups (*Pressure Campaign* \times *Public*). As discussed above, it is likely due to public interest campaigns “going down fighting,” whereas private interest campaigns are more likely to only lobby when they think they anticipate increasing their chances of winning. Unlike private interest campaigns, some public interest campaigns are not trying to influence policy but instead build power for future policy fights (see Chapter 2). The fact that organizations are more likely to get the outcome they seek when they support the draft rule makes sense because the agency is more likely to be sympathetic to their requests.

The model in the third column of Table 3.10 clarifies that the large negative correlation between public interest campaigns and lobbying success is a result of los-

Table 3.10: Difference-in-Difference Model of Lobbying Success Within Organizations

Dependent Variable	Model 1 Lobbying Success	Model 2 Lobbying Success	Model 3 Lobbying Success
Pressure Campaign	0.209 (0.251)	0.014 (0.289)	-0.871 (0.685)
Public	0.081 (0.234)	0.239 (0.251)	-0.748 (0.537)
Coalition	0.293 (0.438)	0.042 (0.455)	0.091 (0.447)
Log(Coalition Size)	-0.185+ (0.105)	-0.102 (0.116)	-0.093 (0.102)
Members of Congress	0.019* (0.009)	0.018+ (0.009)	0.023** (0.008)
Supports Rule	0.826*** (0.158)	0.865*** (0.164)	0.644*** (0.163)
Pressure Campaign × Public	-1.091** (0.355)	-0.989* (0.385)	0.695 (0.773)
Bush			0.174 (0.600)
Trump			-1.544** (0.527)
Pressure Campaign × Bush			0.062 (1.134)
Pressure Campaign × Trump			1.534* (0.724)
Bush × Public			-0.771 (0.939)
Trump × Public			1.408* (0.583)
Campaign × Public × Bush			-0.934 (1.449)
Campaign × Public × Trump			-2.877*** (0.827)
Num.Obs.	3850	3850	3850
R2	0.868	0.884	0.873
R2 Adj.	0.308	0.377	0.329
R2 Within	0.084	0.086	0.141
R2 Pseudo			
AIC	13 940.4	13 472.8	13 798.4
BIC	33 446.0	33 091.1	33 341.7
Log.Lik.	-3852.183	-3600.417	-3775.224
Std.Errors	by: Organization	by: Organization	by: Organization
FE: Organization	X	X	X
FE: agency	X		X
FE: president	X		
FE: Docket		X	

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

ing campaigns during the Trump administration. Model 3 includes the president as an indicator variable interacted with the indicators for the pressure campaign and coalition type (whereas Models 1 and 2 estimate fixed effects for each president). First, it shows that the average organization was less likely to see its desired policy changes under President Trump than under President Obama. This is likely due to asymmetry in organizations in this sample of high-salience rules, with far more organizations on the political left than the political right in this sample of rules. Supporting this conclusion, there is a positive interaction between the indicators for a pressure campaign and for President Trump ($Pressure\ Campaign \times Trump$) for private interest groups (the omitted category), but a very large negative relationship for public interest group campaigns under President Trump ($Pressure\ Campaign \times Public \times Trump$).

3.5 Conclusion

Public pressure campaigns appear to help private interests more than public interests on average. However, this correlation could have at least two observationally equivalent causes. First, my theory predicts a strong selection effect. By nature, public interest groups need to build grassroots power, contact lists, and a donor base to persist to fight the next day. Unlike businesses, public interest organizations thus have incentives to launch pressure campaigns even when they have little hope of influencing policy. Second, pressure campaigns from business groups are rarer and perhaps more surprising. Formal models of bureaucratic policymaking suggest that policymakers should be most affected by surprising information. Policymakers may be more likely to expect campaigns from public interest groups and even have prior beliefs that the public is on their side. A large segment of the pub-

lic voicing support for a cause that bureaucrats perceived as narrow may be more likely to make them question or revise their prior beliefs about the public or the politics of their proposed policy.

Even among private interest groups and businesses, however, I find mixed evidence that public pressure campaigns increase lobbying success. There are several possible explanations for this result. For example, it may be that agencies may not be persuaded by political information, either because of the institutions for dealing with public input or decisionmakers' biases. Alternatively, the relatively small sample may simply lack the power to reliably estimate small effects.

I do find evidence that public pressure campaigns coalitions mobilize support from members of Congress and reduce overt opposition by members of Congress. However, legislators disproportionately align with private interest coalitions (i.e., coalitions led by business interests), not the public interest coalitions that run most public pressure campaigns.

— 4 —

The Environmental Justice Movement and Bureaucratic Policymaking

Abstract

Social movements play a critical role in advancing landmark statutes that recognize new rights and social values. Likewise, lack of movement pressure is a leading explanation for the failure of policy efforts. Yet, we have little systematic evidence about the impact of social movement pressure on policymaking. I examine how social movements affect policymaking by assessing the environmental justice movement's impact on 25 thousand draft and final policy documents from 40 U.S. federal agencies. Leveraging a new dataset of 42 million public comments on these draft policies, I find that when public comments and petition campaigns raise environmental justice concerns, these concerns are more likely to be addressed in the final policy document. Effect sizes vary across agencies, possibly due to organizational identities, missions, and institutional processes for addressing environmental justice concerns. The magnitude of public pressure also matters. When more groups and individuals raise environmental justice concerns, policy texts are more likely to change, even when controlling for overall levels of public attention. These findings suggest that distributive justice claims, their alignment with institutional cultures, levels of public attention, and levels of public pressure all systematically affect policymaking. However, baseline rates of addressing environmental justice are so low that, even when activists raise EJ concerns, most policy documents pay no explicit attention to it—a pattern that persists across agencies and throughout the G.W. Bush, Obama, and Trump administrations.

4.1 Introduction

Social movements like the civil rights movement and the environmental movement are understood to have played a critical role in advancing landmark statutes recognizing new rights and social values. Likewise, a lack of movement pressure is a leading explanation for the failure of policy efforts to address issues like climate change (Skocpol, 2013). Yet, we have little systematic evidence about the impact of social movements policymaking. This is especially true for policymaking in the bureaucracy, where most U.S. law is now made. To what extent do movements shape the thousands of policies the U.S. government makes every year?

This chapter examines how social movements affect policymaking by assessing the environmental justice movement's impact on 25 thousand policy processes in 40 U.S. federal agencies from 1993 to 2020. Environmental justice (EJ) concerns focus on unequal access to healthy environments and protection from harms caused by things like pollution and climate change (Bullard, 1993). The EJ issue frame emerged in local campaigns against toxic waste sites and farmworker exposure to pesticides (Čermakapek, 1993) and began appearing in federal policy documents in the 1980s (GAO, 1983). Taylor (2012) describes a fusion of the American Indian Movement, Chicano movement, farmworker movement, civil rights movement, and union organizing:

People of color [raised] social justice concerns such as self-determination, sovereignty, human rights, social inequality, loss of land base, limited access to natural resources, and disproportionate impacts of environmental hazards and linked them with traditional working-class environmental concerns such as worker rights and worker health and safety to develop an environmental justice agenda. (p. 1)

Like other social movements, the environmental justice movement illustrates how

activists attempt to use a particular way of framing issues (in this case, a particular phrase) as a vehicle to advance a policy agenda. Because the phrase evokes certain ideas and policy demands, systematic data on how policy documents address (or fail to address) environmental justice allow empirical tests of theories about when institutions will respond to claims raised by activists.

The environmental justice movement offers a broad but tractable scope for analysis and illuminates what is at stake in the politics of agency policymaking. Policies affect the distribution of resources and power. How policy documents address distributive justice issues highlights how policy processes construct communities of relevant stakeholders and appropriate criteria to evaluate policy consequences. Raising environmental justice concerns in policy debates is an example of how social movement organizations mobilize norms and evaluative frameworks that interact with organizational identities, missions, and reputations and, thus, impact policy decisions (Carpenter, 2001).

Whereas Chapter 2 and Chapter 3 focus on majoritarian mechanisms by which public pressure may affect policymakers (e.g., through impressions about the scale of public support or the involvement of a member of Congress), this chapter focuses on an additional type of political information: claims about policy-relevant communities and their deservingness of governmental attention. Doing so focuses on how public pressure campaigns may also advance minority rights. Moreover, where Chapter 2 and Chapter 3 focus on the impact of isolated pressure campaigns, this chapter looks across hundreds of campaigns with similar demands to assess the aggregate effects of a broader movement.

Tracing ideas like environmental justice through policy processes reveals the mechanisms by which social movements succeed or fail to influence policy. If draft policies do not mention EJ concerns, but activists raise EJ concerns that

policymakers then address in the final policy, this may be evidence that public pressure mattered. Likewise, when draft policies *do* address EJ, if groups comment on it and then policymakers change how the final policy addresses EJ, this may be evidence that public pressure mattered.

I assess the impact of the EJ movement qualitatively and quantitatively. Tracing the evolution of EJ analyses through several policy processes shows that the concept is hotly contested and rarely addressed by agencies in ways that activists find acceptable. Activist pressure affected how policies addressed EJ in some cases but failed to affect other policies. Across a hand-coded random sample of 182 rulemaking processes, I find that frontline EJ community groups and tribal governments are among the types of organizations least likely to have their substantive policy demands met, but substantive policy change is more likely when public interest law organizations raise EJ concerns.

Quantitative text analysis of all rules published by 40 agencies from 1993 to 2020 shows that activist mobilization affected policy discourse, even under administrations explicitly hostile to their cause. When public comments raise EJ concerns, these concerns are more likely to be addressed in policy documents. Specifically, the number of comments mobilized (both overall and by EJ advocates specifically) is positively correlated with agencies adding language addressing EJ to policies where the draft policy did not mention EJ. When comments raise EJ concerns, sections of policies that do address EJ are also more likely to change. The correlation between EJ activist mobilization and policy changes is largest for agencies with missions focused on “environmental” and distributive policy. Such agencies house the kinds of policymakers likely to have institutional and cognitive processes primed to be most responsive to EJ concerns.

4.2 Theory: Distributive Justice Claims as Policy-relevant Information

4.2.1 Social Movements and Policy Change

Social movement pressure is a major driver of policy change (Dahl, 1956; Piven and Cloward, 1977; Lipsky, 1968; Tarrow, 1994; Andrews, 1997; McAdam, 1982, McAdam, Tarrow and Tilly (2001); McAdam and Su, 2002; Cress and Snow, 2000; Weldon, 2002; Weldon, 2011). This is especially true for policies that redistribute wealth or other social privileges. “From the very beginning, redistributive policies have been associated with social classes and social movements” (Lowi and Nicholson, 2015, p. 88). The organizational forms that mobilize and channel movement pressure—often called social movement organizations by those who study their organization and advocacy organizations or pressure groups by those who study their effects—are essential features of modern politics and lawmaking (Baumgartner and Leech, 2001; Coglianese, 2001). Conversely, a lack of broad-based support and movement pressure can doom a policy effort (Skocpol, 2013).

Activists reshape political parties to enact new policy agendas (Schattschneider, 1942; Cohen et al., 2008; Schlozman, 2015; Skocpol and Williamson, 2016). Protests can be an effective mechanism for minority interests to communicate preferences to policymakers when electoral mechanisms fail to do so (Weldon, 2011). Policymakers learn and take informational cues from political behaviors like protests (Gillion, 2013). Carpenter (2021) finds similar potential for petitions to serve as a channel to raise “new claims” and influence policy beyond elections: “Petition democracy offers another model of aggregation, where numerical minorities could still make a case of quantitative relevance” (p. 479). Numbers matter for protests and petitions, regardless of whether they represent a majority. Petition

campaigns can also build the organizational capacity and political coalitions required to affect policy and place issues on national agendas. As Carpenter (2021) finds, Indigenous governments and activists have long used petitions to build coalitions and raise concerns to the federal government:

Because they assisted in recruiting tribal communities and allies to Indigenous causes, these petitioning moments enhanced organizational democracy. They also advanced procedural democracy by effectively placing Indigenous issues on local, ecclesiastical, tribal, state, and national agendas. (Carpenter, 2021, p. 119)

Still, social movement scholarship tends to focus on social movement emergence and development rather than policy impact (see reviews by Meyer (2004) and McAdam (2017)) and offers “limited research on [social movement] influence” (Andrews and Edwards, 2004). Studies that do examine the policy influence of social movements tend to focus on landmark policies like the Civil Rights Act (Gillion, 2013) or case studies of local policy issues (e.g., Bullard, 1993; Rochon and Mazmanian, 1993). Reviewing the specificity of measures used to assess the impact of advocacy campaigns, Burstein (2020) concludes that “[i]n contrast to those studying opinion and policy, however, researchers studying advocacy and policy rarely discuss levels of specificity” (p. 5).

In addition to challenges with measuring advocacy and influence, there are issues with case selection. Leech (2010) argues that the influence of advocacy campaigns is overstated because scholars focus on issues where impact is especially likely—issues characterized by a lot of advocacy and recent or impending policy change. Lowery (2013) raises the opposite concern: that the high-salience issues scholars select may be the cases where advocacy success is least likely. In short, selecting on the dependent variable limits our understanding of the influence of advocacy

campaigns. While large-scale and longitudinal studies have become more common (Hojnacki et al., 2012), systematic impact across the thousands of non-landmark policies that governments make every year is rarely the dependent variable.

In contrast to scholarship on social movements, policy-focused environmental justice scholarship tends to examine the effects of policies rather than the effects of activism on the policy process. For example, Bullock and van der Ven (2018) investigate whether EJ policies affect exposure to pollution, Liang (2016) finds that EJ policies are not always effective, and Liang (2017) find that states with more lax immigration laws also have more lax monitoring of regulatory compliance in Latinx neighborhoods. Pellow (2016) dubs work documenting unequal outcomes the “first generation” of EJ scholarship, with a “second generation” of EJ scholarship developing critiques and studies of EJ activism through the lens of critical theory, incorporating insights from critical race theory, feminist theory, and social movement scholarship. Like most social movement scholarship, critical environmental justice scholarship focuses more on movement dynamics than its impact on policy.

Empirical environmental justice studies that look at both the inputs and outputs of the policy process are rare and have thus far focused more on inequalities in geographies or enforcement than policymaking processes. Abel, Salazar and Robert (2015) find that poorer and less White states have more developed EJ policies. Particularly relevant to the present analysis, a few studies address the effects of political mobilization. Lester, Allen and Hill (2001) find that activists repeatedly succeeded in legitimizing their claims and getting EJ concerns on the political agenda but largely failed to push through legislation, in part due to conflicts between grassroots and national advocacy groups (p. 52). Konisky and Reenock (2017) find that regulatory enforcement is correlated with political mobilization around EJ issues.

In another particularly relevant study, Harrison (2019) documents how some agency

officials advance environmental justice reforms while others resist them.

This chapter builds on this work to systematically address the effects of political mobilization on specific policy documents across agencies and presidential administrations. Specifically, I use public comments and changes in the text of draft and final agency rules to assess the impact of environmental justice campaigns on bureaucratic policymaking.

To develop hypotheses about the relationship between political mobilization and bureaucratic policy outcomes, I turn to the literature on bureaucratic policymaking. While this literature has largely focused on the lobbying activities and influence of political insiders, I argue that theories about the power of technical and political information can be extended to study the kinds of claims raised by environmental justice advocates.

4.2.2 Technical Information: The Currency of Lobbying

Dominant theories of bureaucratic policymaking have little room for social movements and political pressure. Instead, they focus on how agencies learn about policy problems and solutions (Kerwin and Furlong, 2011). Leading formal models are information-based models where sophisticated lobbying groups affect policy by revealing new information to the agency (Gailmard and Patty, 2017; Libgober, 2018), and empirical studies support the conclusion that information is the currency of lobbying in rulemaking (Yackee, 2012; Cook, 2017; Gordon and Rashin, 2018; Walters, 2019a).

Agency rulemaking is an especially technocratic and legalistic form of policymaking that explicitly privileges scientific and legal facts as the appropriate basis for decisions. Procedural requirements to consider relevant information create incentives for lobbying groups to overwhelm agencies with complex technical information,

making rulemaking obscure to all but the most well-informed insiders (Wagner, 2010). Influence in rulemaking generally requires resources and technical expertise (Yackee, 2019).

The result is that rulemaking is dominated by sophisticated and well-resourced interest groups capable of providing new technical or legal information. Empirical scholarship finds that economic elites and business groups dominate American politics in general (Jacobs and Skocpol, 2005; Soss, Hacker and Mettler, 2007; Hertel-Fernandez, 2019; Hacker, 2003; Gilens and Page, 2014) and rulemaking in particular (Seifert, 2016; Crow, Albright and Koebele, 2015; Wagner, Barnes and Peters, 2011; West, 2009; Yackee and Yackee, 2006; Yackee, 2006; Golden, 1998; Haeder and Yackee, 2015; Cook, 2017; Libgober and Carpenter, 2018).

To the extent that scholars address public pressure campaigns, both existing theory and empirical scholarship suggest skepticism that public pressure campaigns matter. For example, Balla et al. (2018) find that “legal imperatives trump political considerations” (p. 1). (See Chapter 2 for a review of scholarship on public pressure campaigns and their impact on policy.) The largest empirical analysis to date [Chapter 3] also shows little relationship between public pressure and lobbying success. Campaigns that directly confront elite and business interests, like the environmental justice movement, may be especially unlikely to influence bureaucratic policymaking. Alternatively, it is also possible that some social movements have normative and political resources sufficient to overcome the technocratic biases of bureaucratic policymaking.

4.2.3 Political Information

While social movement organizations do engage in fights over technical reports and scientific studies, the information that activists provide is often more overtly polit-

ical. As discussed in Chapter 2, Nelson and Yackee (2012) identify political information as a potentially influential result of groups expanding their lobbying coalitions. While they focus on mobilizing experts, they describe a dynamic that can be extended to mobilizing public pressure: “[C]oalition lobbying can generate new information and new actors—beyond simply the ‘usual suspects’ —relevant to policy decisionmakers (p. 343).” Expanding on the arguments about political information advanced in Chapter 2, I argue that mobilizing new actors to participate in the policymaking process may yield information about a policy’s disparate effects. Information about a policy’s disparate effects is a form of political information, potentially alerting policymakers to new concerns and asserting new issue frames. Like levels of public attention and pressure, the normative appeal of distributive justice claims can be a political resource, potentially allowing groups to change policymakers’ perceptions of their political environment, the range of appropriate actions, and the political consequences of their decisions.

4.2.3.1 Information About a Policy’s Disparate Effects

The politics and outcomes of policymaking depend on how the relevant groups are defined (Lowi, 1964). While specific *data* on disparate impacts of policy may require expertise (Ganz and Soule, 2019), anyone can highlight a community of concern or potential distributive effects of a policy. Identifying communities of concern is a political statement that does not require technical expertise. Just as Nelson and Yackee (2012) found regarding mobilizing diverse experts, mobilizing diverse communities affected by a policy may introduce new claims from new actors about how the communities that a policy may benefit or harm should be constructed.

Informing policymakers about how a particular set of stakeholders will be affected can be a lobbying tactic. Distributive justice claims simultaneously assert

that a particular group deserves specific attention and demand that the policy-maker account for how that group may be impacted, both of which may require revisions to the policy. Likewise, an organization may tell policymakers what a key constituency or affected groups think about the proposed policy—for example, whether they support or oppose the policy. Instead of bolstering *scientific* claims, comments that focus on a policy’s disparate impacts bolster *political* claims about who counts and even who exists as a distinct, potentially affected group deserving policymakers’ attention.

The political construction of policy-relevant groups through the policy process has long interested administrative law scholars. Gellhorn (1972) argues that “individuals and groups willing to assist administrative agencies in identifying interests deserving protection” (p. 403) improve the policy process. Seifter (2016) argues that policymakers’ beliefs about who is lobbying them and who those groups represent ought to be (and likely is) key to how they respond.

The power of groups to affect policy depends on their recognition by formal and informal institutions. All organizations systematically privilege some policy problems, solutions, and types of information over others.

All forms of political organization have a bias in favor of the exploitation of some kinds of conflict and the suppression of others because organization is the mobilization of bias. Some issues are organized into politics, while others are organized out. (Schattschneider, 1975, p. 71)

Public comment periods in agency rulemaking are formally more “identity neutral” than policy processes with procedural rights reserved for certain interests (Feinstein, 2021). This means that the political construction of relevant groups depends on who participates and the identities they mobilize or claim to represent. As Yackee (2019) and others note, high information costs mean that individuals

rarely participate. Instead, groups claim to represent various constituencies. “Because the costs of individualized participation in policy decision making are often excessive, informal representatives are prevalent as a form of participation in agency decisions” (Rossi, 1997, p. 194).

Bureaucratic policymaking in the United States is dominated by cost-benefit analysis, which requires defining groups that are benefited or harmed by a policy and may even upweight or prioritize benefits or costs to certain groups. Agencies have many reasons to consider the distributional effects of policy and often do. For example, President Biden issued a memorandum instructing the Director of the Office of Management and Budget to propose recommendations for “procedures that take into account the distributional consequences of regulations.” Thus, comments raising distributive concerns provide potentially influential political information.

This “distributive information” raises claims of distributive justice. Public comment periods are celebrated as “a crucial way to ensure that agency decisions are legitimate, accountable, and just” (Bierschbach and Bibas, 2012, p. 20). “Public participation can force agencies to rethink initial inclinations” (Seifter, 2016, p. 1329)—such as which social groups are relevant or deserve special attention. Courts purportedly review policy decisions made through rulemaking with a particular eye toward whether they foster “fairness and deliberation” (*United States v. Mead Corp.*, 2001) and occasionally note the volume or diversity of participants in the public comment process (e.g., *Vermont Yankee v. NRDC*, 1978). While there is mixed empirical evidence about the importance of policy processes for judicial review, the number of public comments received on a draft policy is associated with courts letting the final agency policy stand (Judge-Lord, 2016). Despite the dominance of business groups and seeming lack of success for public pressure campaigns in general, distributive justice claims may have a unique role in bureaucratic policymak-

ing.

4.2.3.2 Public Pressure as a Political Resource

The chances that an agency will address distributive justice claims may be affected by other political factors, including the overall levels of public attention or public pressure. As theorized in Chapter 3, the number of supporters may matter because it indicates support among relevant communities or the broader public. Again, instead of bolstering *scientific* claims, perceived levels of public support bolster *political* claims. An organization's ability to expand the scope of conflict by mobilizing a large number of people can be a valuable political resource (Schattschneider, 1975), and public pressure campaigns expand the scope of conflict (Potter, 2017a). Public engagement and mobilization can thus be a tactic to gain power. Furlong (1997) and Kerwin and Furlong (2011) identify mobilization as a tactic. The organizations they surveyed believed that forming coalitions and mobilizing large numbers of people were among the most effective lobbying tactics. Organizations surveyed by English (2019a) also reported being organized into coalitions. The theory and empirical strategies below build on work showing that the size of lobbying coalitions (the number of organizations lobbying together) predicts lobbying success (Yackee and Yackee, 2006; McKay and Yackee, 2007; Nelson and Yackee, 2012; Dwidar, 2021b,a). While these studies focused on how organizations mobilize their members and other organizations, I expand on this understanding of mobilization as a lobbying tactic to include a campaign's broader audience, more akin to the concept of an attentive public (Key, 1961) or issue public (Converse, 1964).

Interest groups and their lobbying coalitions are the proper units of analysis, and individual participants are best understood as measuring an amplitude of support for their efforts (see Chapter 2). While scholars often *compare* the participa-

tion of groups to individual citizens (see Yackee (2019) for a review), “it can be difficult to distinguish an individual’s independent contribution from an interest-group-generated form letter” (Seifter, 2016, pg. 1313). Indeed, Chapter 2 shows that nearly all individual comments on proposed policies are mobilized by interest groups.

Because many politically active groups are “memberless” or run by professionals who lobby with little input from their members (Baumgartner and Leech, 2001; Skocpol, 2003; Schlozman, Verba and Brady, 2012), evidence of an actual constituency is valuable political information. Petition signatures and form letters are among the only ways a pressure group can demonstrate an engaged and issue-specific constituency on whose behalf they claim to advocate.

Finally, building on the distinction between direct and indirect influence set out in Chapter 2, the “fire alarm” role that interest groups play in the policy process (McCubbins and Schwartz, 1984) may have different effects when sounding the alarm also involves “going public.” Expanding the scope of conflict by mobilizing public attention to rulemaking may shift policymakers’ attention away from the technical information and arguments provided by the “usual suspects” and toward the distributive effects of policy.

4.2.4 Hypotheses

Scholarship on bureaucratic policymaking in general—and EJ advocacy in particular—presents competing intuitions about the effect of EJ activists and the broader public in rulemaking. From the above discussion about the potential impacts of political information in bureaucratic policymaking, I distill five hypotheses—three about distributive information and two about public pressure. I posit each hypothesis in the direction that advocacy groups do affect rulemaking

while also noting equally plausible intuitions for concluding the opposite. Because theory suggests skepticism and empirical work has found that advocacy groups and public pressure campaigns have little to no effect on rulemaking, I set the empirical bar low: do EJ advocates and public pressure campaigns have *any* effect at all on policy documents. Rather than focusing on substantive policy changes, the dependent variable in the statistical analysis is more discursive: any response to environmental justice claims in policy documents, not just substantive policy changes that groups may demand.¹

Distributive Claims Hypothesis:

Hypothesis 4.1. Policymakers are more likely to change whether or how policies address distributive justice when commenters raise distributive justice concerns.

As discussed above, agency policymakers have incentives to address distributive concerns, especially environmental justice. By raising EJ concerns, commenters draw attention to the distribution of policy impacts—who a policy may affect. Asserting definitions and categories of stakeholders and affected groups is one type of policy-relevant information.

Repeated Claims Hypothesis:

Hypothesis 4.2. Policymakers are more likely to change whether or how policies address concerns when more commenters raise them.

Scholarship on lobbying in rulemaking emphasizes the value of repeated information and coalition size (Mendelson, 2011; Nelson and Yackee, 2012). This implies that the more distinct organizations and comments raise EJ concerns, the more

¹Qualitatively, I show that discursive and framing effects can affect policy outcomes, but the broad evidence from the hand-coded sample suggests that substantive policy change is much more limited than discursive responses.

likely it is that their coalition will influence the policy process. As described below, I distinguish unique comments from mass comments. The number of unique comments approximates a coalition's size regarding the number of different groups, each submitting a unique text. The total number of comments, including signatures on identical form letters, indicates the scale of public attention and pressure.

Competing intuitions and other prior studies oppose both Hypotheses 4.1 and 4.2. First, formal models and empirical scholarship on lobbying in rulemaking emphasize the importance of novel science and technical information—things unknown to agency experts (Wagner, 2010). Claims about distributive justice and repetition of such claims provide no new technical information. Second, business commenters are influential, and public interest groups are not (Yackee and Yackee, 2006; Haeder and Yackee, 2015). Because environmental justice claims often conflict with business interests, such claims may be especially disadvantaged. Finally, policymakers may be more likely to anticipate EJ concerns when they are more salient to interest groups. This would mean that rules where commenters raise EJ concerns may be the *least* likely to change whether or how EJ is addressed because policymakers are more likely to have already considered these issues and stated their final position in the draft rule.

Policy Receptivity Hypothesis:

Hypothesis 4.3. Policymakers who more frequently address concerns like environmental justice will be more responsive to commenters raising those concerns.

Some agencies may be more receptive to certain kinds of lobbying—for example, claims about distributive justice—than others. Bureaucracies are specialized institutions built to make and implement certain kinds of policies based on certain goals and types of facts. Each agency has distinct norms and epistemic communi-

ties (Carpenter, 2001; Harrison, 2019). Some may see an issue as “environmental” where others do not. Likewise, some may see disparate impacts that demand consideration of distributive “justice” where other officials with different norms and training see no such disparity. In short, some policymakers may see their policy area as more related to environmental justice than others and thus be more receptive to commenters’ concerns.

The competing intuition to Hypothesis 4.3 is that policymakers familiar with EJ concerns are *least* likely to respond to EJ concerns because they anticipate these concerns—EJ concerns are not novel to them. If so, agencies that rarely consider EJ may be more easily influenced by commenters who present novel information and concerns. These policymakers may be less likely to have preempted EJ critiques in the draft policy. This intuition aligns with information-based formal models (Libgober, 2018).

Public Attention Hypothesis:

Hypothesis 4.4. Proposed policies are more likely to change when they receive more public attention (e.g., more public comments).

If the scale of public attention affects the policy process, policy may be more likely to change when more people comment on a draft policy. This follows the intuition that policy change is most likely in high-salience policy processes (Leech, 2010).

The competing intuition against Hypothesis 4.4 is that large numbers of comments indicate policy processes that were already salient before they were targeted by a public pressure campaign. Anticipating public scrutiny, policymakers would be more likely to have stated their final position in the draft policy. If this is the case, policies with more public comments should be *less* likely to change. Public

attention could also be unrelated to policy change, meaning that policymakers neither anticipate nor respond to public attention in writing or revising policy documents. A null effect is most consistent with leading formal models of bureaucratic policymaking, where the scale of public attention is absent.

Conditional Public Pressure Hypothesis:

Hypothesis 4.5. Policies are more likely to address an issue when they receive more public attention (e.g., more public comments) *and* at least one comment raises that issue.

This hypothesis asserts that the overall level of public attention conditions policymakers' responses to specific claims—it is the interaction between the number of total public comments and at least one of those comments raising EJ concerns that makes policy more likely to address EJ.

The competing intuition against Hypothesis 4.5 is again that large numbers of comments indicate high-salience rulemakings where policymakers are more likely to anticipate public scrutiny, including how they did or did not address specific issues like environmental justice. If policymakers anticipate public scrutiny and EJ concerns specifically, they may be more likely to preempt EJ concerns and state their final position in the draft policy.

4.3 Testing the Theory

4.3.1 Environmental Justice as a Boundary-drawing Tool

The politics of environmental justice has several convenient properties for studying the policy impact of social movements. First, discourse around policies framed

as environmental issues is, unlike issues like civil rights and immigration, inconsistently racialized and, unlike issues like taxes and spending, inconsistently focused on *distributions* of costs and benefits. Indeed, White environmentalists have long framed environmental policy as “public goods.” This means that policies may or may not be framed in environmental justice terms. Despite policy almost always having disparate impacts, an “environmental” frame often creates a human-environment distinction and shifts attention to non-human objects such as air, water, food, or landscapes and away from the distribution of access to them or protection from them when they are contaminated. For example, policy fights over pesticides at the EPA may be more often be framed in environmental justice terms, leading to analyses of the distribution of harms to different types of farmworkers. In contrast, pesticide policy at the Department of Agriculture may focus less on human health and be much less likely to be framed in distributive justice terms. By focusing on distributions of costs and benefits, fights over EJ analyses differ from the more utilitarian or preservationist analyses that dominate White environmental activism and policymaking (Harrison, 2019).

Second, compared to other ideas around which people mobilize, “environmental justice” is a fairly distinctive phrase. Most people who use this term share a general definitional foundation. Even attempts to reframe the term (e.g., to focus on class more than race, or jobs more than health) come about as dialectical moves related to the term’s historical uses. Thus, when “environmental justice” appears in a text, it is rarely a coincidence of words; its appearance is a result of the movement or reactions to it.

Third, this phrase appears frequently when the idea is discussed. There are few synonyms. Groups raising equity concerns on environmental issues commonly use the phrase “environmental justice.” Those who use narrower, related terms—

including the older frame of “environmental racism” and the newer frame of “climate justice”—almost always use “environmental justice” in their advocacy as well.

Finally, the term is relevant to rulemaking records in particular. In 1994 President Clinton issued Executive Order 12898—“Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”—directing all agencies to consider EJ implications of their actions and policies. Executive Orders from Presidents Obama and Biden and statements from agency heads in every administration have since interpreted and reinterpreted parts of this Order, all with direct implications for rulemaking. Despite this Executive Order, not all draft or final rules address EJ. Those that do, however, tend to cite E.O. 12898 and use the phrase “environmental justice.” For the same reason, commenters who critique draft rules also cite this Executive Order and use this language. Again, this is true both for movement activists and reactionary efforts to redefine the term. While E.O. 12898 does not itself create a right to sue agencies, courts may strike down rules for failing to comply with procedural requirements of the Administrative Procedure Act (APA) and National Environmental Policy Act (NEPA) if the agency fails to “examine the relevant data” or “consider an important aspect of the problem” (*Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 1983). This can include an agency’s 12898 EJ analysis: “environmental justice analysis can be reviewed under NEPA and the APA” (*Communities Against Runway Expansion, Inc. v. FAA*, 2004). The legal salience of the phrase “environmental justice” means that advocates attempting to frame policies in distributive terms tend to use the phrase, and agencies also tend to use it if they respond to these concerns.

4.3.2 Data

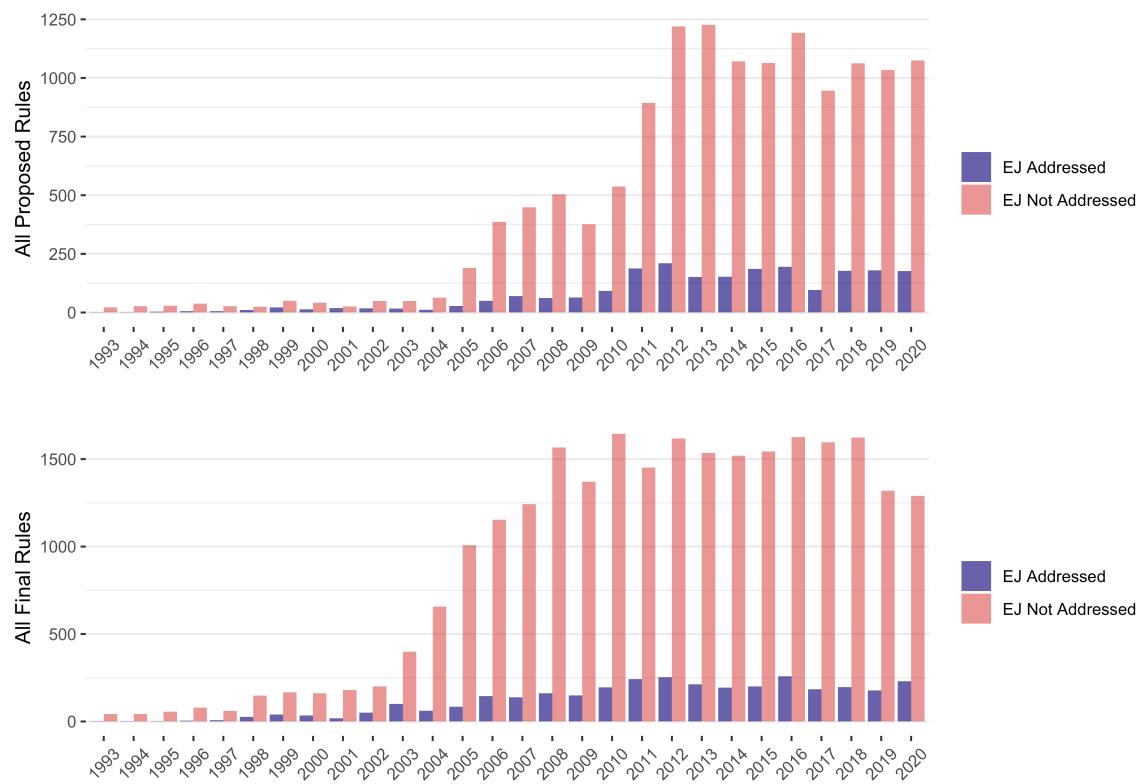
To examine the impact of EJ activists and public pressure campaigns on policy documents, I collect the text of all draft rules, public comments, and final rules from regulations.gov. Then, I select rulemaking documents from agencies that published at least one rule explicitly addressing EJ from 1993 to 2020. This yields over 25,000 rulemaking dockets from 40 agencies; 12,257 of these have both a proposed and final rule.²

Despite E.O. 12898, most rules do not address environmental justice. Figure 4.1 shows that most draft and final rules (about 90 percent) do not mention “environmental justice.” The number of policies that take EJ into account (rather than just mentioning the E.O. 12898) is even lower (Gauna et al., 2001; Revesz, 2018). Interestingly, the total number of final rules and the percent of the total addressing EJ have remained relatively stable for the period where regulations.gov data are complete (after 2005). From 2006 to 2020, these agencies published between 2000 and 3000 final rules per year, of which between 200 and 300 addressed EJ.

Even at the Environmental Protection Agency (EPA), where most policies are clearly framed as “environmental” issues, only about half of final rules address EJ. Many agencies that make policy with apparent EJ effects almost never address EJ. These include the Fish and Wildlife Service (FWS), Department of Housing and Urban Development (HUD), National Oceanic and Atmospheric Administration (NOAA), Nuclear Regulatory Commission (NRC), and the Office of Surface Mining (OSM). At no agency did majority of rules addressed EJ overall. Only in a handful of years at agencies that publish few rules was EJ addressed in most rules. These include the Council on Environmental Quality (CEQ), Army Corps of Engineers

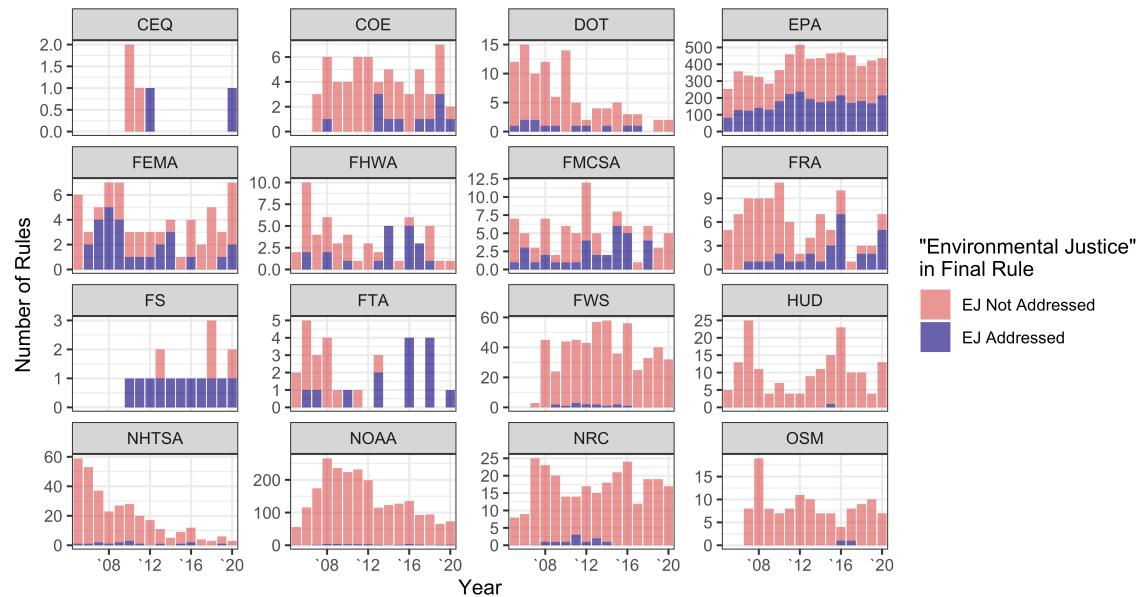
²Some final rules are published without a draft, and some proposed rules are withdrawn or never finalized.

Figure 4.1: Proposed and Final Rules by Whether they Address Environmental Justice.



(COE), Federal Emergency Management Agency (FEMA), Forest Service (FS), and several Department of Transportation agencies (the Federal Highway Administration (FHWA), Federal Motor Carrier Safety Administration (FMCSA), Federal Railroad Administration (FRA), and Federal Transit Administration (FTA)). Figure 4.2 shows the number of rulemaking projects over time by whether they ultimately addressed EJ at agencies that either published more than ten rules addressing EJ or received over 100 comments raising EJ concerns.

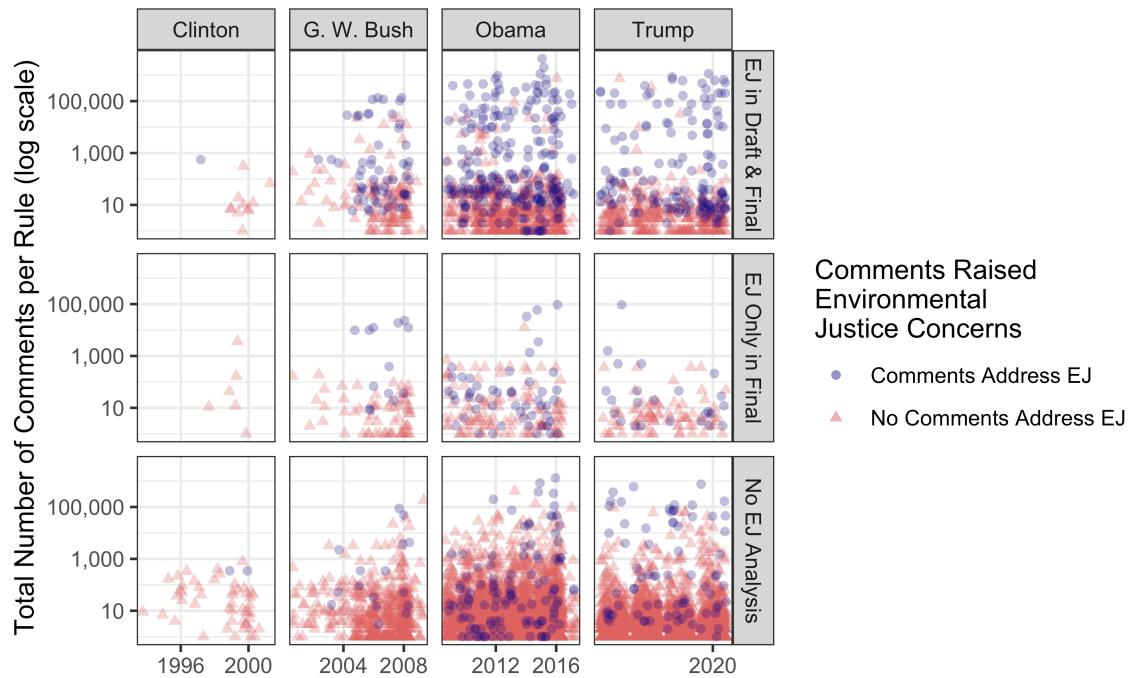
Figure 4.2: Number of Proposed and Final Rules Addressing Environmental Justice



4.3.2.1 Comments

Figure 4.3 shows the number of comments on each proposed rule published between 1993 and 2020. Light red circles indicate rules where no commenters raised EJ concerns. Dark blue triangles indicate rules where they did. The bottom row shows the subset of rules where “environmental justice” appeared in neither the draft nor the final rule. The middle row shows rules in which “environmental justice” appeared in the final but not the draft. My first analysis compares these two subsets. The top row shows rules where “environmental justice” appeared in both the draft and final rule. My second analysis assesses change in this subset of rules. Predictably, commenters most often raised EJ concerns on rules in the first row, but many rules that did not initially address EJ still received comments raising EJ concerns.

Figure 4.3: Number of Comments on Proposed and Final Rules and Whether Comments Raised Environmental Justice Concerns



4.3.2.2 Interest Groups and Second-order Representation

When lobbying during rulemaking, groups often claim to represent broad segments of the public—claims are dubious and difficult to verify (Seifter, 2016). Thus, to interpret substantive results or the normative import of any findings in this analysis, it is insufficient to know which groups participate. We also need to know who these groups claim to represent and whether the people they claim to represent are actually involved in the organization’s decisions. As Seifter argues, “the expertise a group claims is often based on its ability to convey a particular constituency’s perspective, experience, or concerns...A group that does not have or engage with a membership cannot reliably convey those sorts of constituency-based insights.” (Seifter, 2016, p. 1306).

Examining second-order representation is thus required to assess “what contem-

porary participation does and does not achieve” (Seifter, 2016, pg. 1306)—for example, the extent to which EJ concerns (and any potential policy response) indicate genuine social movement advocacy and influence. Recall that EJ is a contested concept used to evoke different distributive claims by different groups. The prevalence and impact of EJ concerns in the policy process are only meaningful against the backdrop of who exactly is using EJ rhetoric.

I examine who is raising EJ concerns in two ways. First, I identify the top organizational commenters such as tribes, businesses, and nonprofits using EJ language and investigate whom these groups represent. I then use a hand-coded sample of 10,000 organizational comments to assess which types of organizations get the substantive policy changes they request when raising EJ concerns. Second, for comments where commenters signed their name, I compare surnames to their racial and ethnic identity propensities in the U.S. Census. Together these pieces of information allow me to comment on “second-order” representation. This is a proxy for the extent to which public comments are representative of the groups they claim to represent (Seifter, 2016).

Which Organizations Most Often Raise EJ Concerns? To explore who raises EJ concerns, I first identify the organization behind each comment through a mix of hand-coding and text analysis. This includes organizational comments on signed letterhead and individuals who use the text of a form letter provided by an organization. I then investigate the top 20 organizations that mobilized the most comments (including form letters and petitions) mentioning “environmental justice” and all organizations that raised EJ concerns on more than one policy.

Table 4.1 shows the organizations that raised environmental justice in comments on the most proposed rules between 1993 and 2020. In terms of a total number of

Table 4.1: Organizations Raising Environmental Justice Concerns on the Most Rulemaking Dockets 2005-2020

Organization	Dockets	Unique EJ Comments	Total EJ Comments
Center For Biological Diversity	53	82	199
Sierra Club	36	62	342,099
Earthjustice	24	32	177,462
Center For Food Safety	19	42	42
NRDC	16	17	162,535
Citizens Trade Campaign	8	8	8
Friends Of The Earth	7	7	61,871
OCEANA	7	7	146
Arctic Slope Regional Corporation	6	7	7
PEW	5	5	63,773
Alaska Eskimo Whaling Commission	5	5	5
American Public Transportation Association	5	5	5
California Pan-Ethnic Health Network	5	5	5
Environmental Protection Agency	5	5	5
Southern Environmental Law Center	5	5	5
CREDO	4	4	221,559
Environmental Defense Fund	4	29	29
California Air Resources Board	4	5	5
Defenders Of Wildlife	4	5	5
Policylink	4	5	5

comments, the top mobilizer was the Sierra Club, with over 340,000 comments mentioning EJ on dozens of rules. The Sierra Club is a membership organization whose members pay dues, elect the leaders of local chapters and have some say in local advocacy efforts. However, its policy work is directed by a more traditional national advocacy organization funded by donations, including over \$174 million from Bloomberg Philanthropies that funded several of the public pressure campaigns in these data. The Sierra Club does have a major program arm dedicated to Environmental Justice that works with local partners “to foster the growth of the environmental justice movement so that oppressed communities will find justice and everyone can experience the benefits of a healthy and sustainable future”(Sierra Club, 2021). The extent to which those individuals have a formal say in the national organization’s lobbying decisions varies across campaigns. The National Board of Directors adopted a statement on social justice in 1993 and principles on environmental justice in 2001. The national website does contain regular Spanish language content. As a federated organization with many local efforts, it is difficult to generalize about second-order representation.

The second most prolific organizer of EJ comments was Earthjustice, with over 175,000 comments on many of the same rules that the Sierra Club lobbied on. Earthjustice is primarily engaged in litigation on behalf of environmental causes. Their website boasts 2.2 million supporters, but it is not clear who they are or if they play any role in the advocacy strategy. A search on the website returns 360 results for “Environmental Justice,” with the top results from staff biographies who work on more local or targeted campaigns, such as environmental conditions for the incarcerated. The EJ language used on the main page is relatively vague. For example, “We are fighting for a future where children can breathe clean air, no matter where they live.” (Earthjustice, 2017). The website does contain some

Spanish-language content.

The Natural Resources Defense Council is similar to Earthjustice—a national nonprofit funded by donations and focused on litigation—but they also lobby and organize public pressure campaigns, including over 160,000 comments mentioning environmental justice.

CREDO Action and MoveOn are more generic progressive mobilizers who lack a systematic focus on EJ issues, but occasionally leverage their vast membership and contact lists to support EJ campaigns led by others.

The Alliance for Climate Protection is more of an elite political group founded by former Vice President Al Gore.

We Act and Communities for a Better Environment both have environmental justice in their central mission statement. Community leaders founded We Act in Harlem, New York, to advocate against environmental racism and poor air quality (WEACT, 2017). Communities for a Better Environment has projects throughout California but is particularly active in Oakland (CBECAL, 2017). Much of the content of their website is in both English and Spanish. Both organizations focus primarily on low-income communities of color and frame their work primarily in terms of race and class. While both organizations participate in national policymaking, WeAct is more focused on communities in Harlem and New York, whereas Communities for a Better Environment casts a broader frame: “CBE’s vision of environmental justice is global—that’s why the organization continues to participate in such international efforts as the Indigenous Environmental Network and the Global Week of Action for Climate Justice” (CBECAL, 2017).

While not a large portion of EJ comments, private companies repeatedly raise research about the unequal impacts of policy to frame these issues as a legitimate but unresolved scientific debate that is not yet conclusive enough to base regulations

on, mirroring the way tobacco and fossil fuel companies have emphasized scientific uncertainty in their lobbying efforts. For example, in one comment, the Southern Company wrote:

People with lower SES are exposed to almost an order of magnitude more traffic near their homes (Reynolds et al., 2001), and live closer to large industrial sites and are exposed to more industrial air pollution (Jerrett et al., 2001). Legitimate health concerns must be addressed. But adopting standards with a scientific basis so uncertain that health improvement cannot be assured is not sound public health policy. (EPA-HQ-OAR-2004-0018-0211)

Other electric utility companies and the American Chemistry Council (the Chemical Industry's Trade Association) submitted nearly identical language on multiple proposed rules. Like many companies, the Southern Company claimed to represent its customers: "electric generating companies and their customers are expected to bear much of the burden" of regulations (EPA-HQ-OAR-2004-0018-0211). Yet, customers have little say in companies' decisions.

Overall, regarding second-order representation, it appears that the groups most often using the language of environmental justice may do so sincerely but generally represent affected communities in a surrogate capacity (Mansbridge, 2003). Several groups representing local communities and led by community leaders have participated, but not nearly as often or with the same intensity as the "big greens." The domination of large advocacy organizations highlights the importance of resources as a condition for lobbying and mobilizing. Not all groups that may benefit from generating political information can leverage it because they lack the resources to fund a campaign or even comment on relevant policies. However, smaller, more member-driven groups may partner with national groups that have more resources to mobilize on their behalf. Finally, a third, much less common type of commenter

raises EJ issues to reframe them as ongoing debates and thus undermine their urgency. I call this reason for engaging an attempt to “break a perceived consensus.” In a way, the fact that energy companies felt compelled to acknowledge and question EJ concerns suggests their importance for policy outcomes.

Substantive Lobbying Success The main analysis in this Chapter focuses on measuring agency responses to a particular issue frame over time. How does this relate to substantive policy change in particular rulemakings? Using a hand-coded sample of approximately 10,000 comments—all comments from organizations with concrete policy demands on a random sample of 182 agency rules from 2005 to 2020, Table 4.2 shows relative rates of lobbying success for different types of organizations. “Overall Success Rate” shows the share of cases that changed between draft and final as each type of commenter requested. “EJ Success Rate” shows the share of cases that changed as the commenter requested when comments included the phrase “environmental justice.” Some organizations types—including frontline EJ community groups, universities, religious groups, professional associations, environmental groups, and pressure groups are subsets of the broad “NGO” category. Trade associations, while technically nonprofits, are not included in the NGO category.

Only law firms were more likely to get their substantive policy demands met when their comments raised EJ concerns. Tribes and Frontline EJ community groups, already the types of organizations least likely to have their substantive demands met (9% and 4%, respectively), saw none of their substantive demands related to EJ met. NGOs, overall, and environmental groups (a subset of NGOs) were slightly less likely to see their policy demands met when these demands were explicitly linked to environmental justice. The most successful types of

Table 4.2: Hand-coded Lobbying Success by Type of Organization, 2005-2020

Organization Type	N	Overall Success Rate	EJ Success Rate
NGO	6,096	27%	24%
Business	1,911	13%	-
Trade Association	894	45%	-
State	294	50%	-
Law Firm	288	25%	50%
Religious	220	24%	-
Pressure Group	182	15%	-
Professional Assn.	179	33%	-
Tribe	179	9%	0%
University	140	10%	-
Environmental Group	130	18%	14%
Credit Union	103	50%	-
Union	88	27%	-
Frontline EJ	78	4%	0%
Finance	6	33%	-
City	5	40%	-

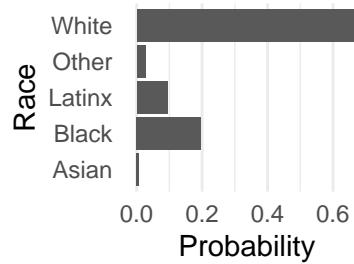
organizations overall—Trade Associations, States, Cities, and Banks—did not use EJ language in the hand-coded sample.

Commenter Race To estimate the racial distribution of commenters using EJ language, I select commenters who signed with a surname appearing in Census records. Figure 4.4 shows a probabilistic racial distribution of commenters who raise EJ concerns in their comments based on the distribution of self-reported racial identities associated with surnames as recorded in the 2010 census.³ I estimate this distribution using the proportion of people with a given surname identified as belonging to each racial category (from this limited set of options). This approach

³I recode “Hispanic” as “Latinx.”

does not assign specific individuals to racial categories. Instead, it represents each commenter as a set of probabilities adding up to 1. The estimated racial distribution of the sample is the sum of individual probabilities.

Figure 4.4: Estimated Racial Distribution from Census Surnames of Commenters raising “Environmental Justice” Concerns in Rulemaking



Compared to the overall distribution in the 2010 census, this sample of commenters appears to be slightly disproportionately Black and less than proportionately Latinx or Asian, with just slightly fewer Whites relative to the national population. This is unsurprising, given that Black Americans have led theorizing and activism around environmental justice (Bullard, 1993).

4.3.3 Tracing Ideas Through Rulemaking: Environmental Justice as a Contested Concept

Using an environmental justice frame does not always imply the same communities of concern. Environmental justice emerged from movements against environmental racism, especially the disposal of toxic materials in predominantly Black neighborhoods (Bullard, 1993). However, the term quickly took on other meanings, encompassing various marginalized groups. President Clinton’s 1994 Executive Order on Environmental Justice required all parts of the federal government to make “addressing disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations and low-income popu-

lations” a core aspect of their mission. This meant considering the disproportionate effects of policies by race and income during rulemaking, thus broadening the scope beyond race.

In 2005, Environmental Protection Agency (EPA) political appointees reinterpreted the Order, removing race as a factor in identifying and prioritizing populations. This move was criticized by activists and two reports by EPA’s own Office of Inspector General (EPA-OIG-2004-P-00007 and EPA-OIG-2006-P-00034).

President Obama’s EPA Administrators reestablished race as a factor. They named EJ as one of their top priorities, but they also faced criticism from activists for paying lip service to environmental racism without adequate policy changes.

In an October 2017 proposed rule to repeal restrictions on power plant pollution, the Trump EPA acknowledged that “low-income and minority communities located in proximity to [power plants] may have experienced an improvement in air quality as a result of the emissions reductions.” This is remarkable given that “assertions that hazardous facilities are concentrated in minority and low-income communities in the United States and that those communities are exposed to inordinate amounts of environmental hazards” are “the most controversial claims of the environmental justice movement” (Taylor (2014), p. 1). Because the Obama EPA discussed EJ when promulgating the Clean Power Plan rule (stating that “climate change is an environmental justice issue”), the Trump EPA attempted to reframe rather than ignore environmental justice. The Trump EPA contended that the Obama EPA “did not address lower household energy bills for low-income households [and that] workers losing jobs in regions or occupations with weak labor markets would have been most vulnerable” (EPA 2017). Like regulated industry commenters, these statements frame the distribution of jobs and electricity costs as EJ issues in order to push back against policies that would equalize the distribution of health impacts

from pollution.

The central conflict over the role of race in policy analyses is just one of many conflicts that the environmental justice movement has caused to be fought somewhat on its terms. The next section briefly reviews the decades-long policy fight over regulating mercury pollution to illustrate how these definitional conflicts shape rules and rulemaking. This case and other examples in this article emerged from reading hundreds of rulemaking documents where agencies did and did not respond to comments raising EJ concerns. Their purpose is to assess whether the cases in the quantitative analysis are plausibly what they appear to be: that changes in rule text are, sometimes, causally related to public comments and that non-changes are cases of agencies disregarding comments, not some accident of the data or measures. The qualitative reading also confirmed other key assumptions, such as the fact that advocates do, in fact, use “environmental justice” when they raise distributional concerns, even on many rules that are not about issues traditionally considered “environmental.”

4.3.3.1 The Evolving Distributive Politics of Mercury Pollution

Definitions of the public good and minority rights are implicit in most policy documents, including agency rules. The public comment process offers an opportunity to protest these definitions. Protest is one way that marginalized groups can communicate opinions on issues to government officials (Gillion, 2013). In the EPA’s Mercury Rules, two definitional issues were decisive. First, as with many forms of pollution, mercury-emitting power plants are concentrated in low-income and non-White communities. Second, some populations consume much more locally-caught freshwater fish, a major vector of mercury toxicity. Studies inspired by the political controversy around the Mercury Rules found high risk among certain communities,

including “Hispanic, Vietnamese, and Laotian populations in California and Great Lakes tribal populations (Chippewa and Ojibwe) active on ceded territories around the Great Lakes” (EPA 2012). Thus the standards that EPA chooses depend on whom the regulation aims to protect: the average citizen, local residents, or fishing communities. This decision has disparate effects based on race and class because of disparate effects based on geography and cultural practices.

In December 2000, when the EPA first announced its intention to regulate mercury from power plants, the notice published in the *Federal Register* did not address EJ issues, such as the disparate effects of mercury on certain populations; it only discussed anticipated impacts in reference to “the U.S. population” (EPA 2000). When the first draft rule was published, it only discussed the effects of the rule on regulated entities, noting that “Other types of entities not listed could also be affected” (EPA 2002). Commenting on this draft, Heather McCausland of the Alaska Community Action on Toxics (ACAT) wrote:

The amount of methyl-mercury and other bioaccumulative chemicals consumed by Alaskans (especially Alaskan Natives) could potentially be much higher than is assumed... [This could increase] the Alaskan Native mortality rate for babies, which according to the CDC, is 70% higher than the United States average. Indigenous Arctic & Alaskan Native populations are some of the most polluted populations in the world. Global transport & old military sites contaminate us too.

By citing the CDC, McCausland’s comment provided both technical and distributive information. As allies mobilized, public pressure mounted to address the disparate impacts of mercury levels. After receiving hundreds of thousands of comments and pressure from tribal governments and organizations, a revised proposed rule echoed McCausland’s comment noting that

Some subpopulations in the U.S., such as Native Americans, Southeast Asian Americans, and lower-income subsistence fishers may rely on fish as a primary source of nutrition and/or for cultural practices. Therefore, they consume larger amounts of fish than the general population and may be at a greater risk of the adverse health effects from Hg due to increased exposure (04-1539/p-719).

After nearly a million additional public comments, a further revised proposed rule ultimately included five pages of analysis of the disparate impacts on “vulnerable populations” including “African Americans,” “Hispanic,” “Native American,” and “Other and Multi-racial” groups (EPA 2011). In the final rule, “vulnerable populations” was replaced with “minority, low income, and indigenous populations” (EPA 2012). The EPA had also conducted an analysis of sub-populations with particularly high potential risks of exposure due to high rates of fish consumption as well as additional analysis of the distribution of mortality risk by race.

Of this second round of comments, over 200 unique comments explicitly raised EJ issues. The Little River Band of Ottawa Indians expressed the Tribe’s

...frustration at trying to impress upon the EPA the multiple and profound impacts of mercury contamination from a Tribal perspective. Not to mention the obligations under treaties to participate with tribes on a ‘Government to Government’ basis. At present, no such meetings have occurred in any meaningful manner with EPA Region V, the EPA National American Indian Environmental Office, nor the State of Michigan’s Department of Environmental Quality...Although EPA purported to consider environmental justice as it developed its Clean Air Mercury Rule, it failed utterly. In this rulemaking, the EPA perpetuated, rather than ameliorated, a long history of cultural discrimination against tribes and their members (EPA-HQ-OAR-2009-0234-12462, p. 67).

Did comments like these play a role in EPA’s changed analysis of whom mercury limits should aim to protect? Because of the many potential sources of influence, it

may be difficult to attribute causal effects of particular comments on a given policy. However, comments may serve as a good proxy for the general mobilization of groups and individuals around an administrative process, and it is not clear why else the EPA would not address EJ in the first draft of a rule and then add it to subsequent drafts in the absence of activist pressure. Electoral politics does not offer an easy explanation. The notice proposing the Mercury Rule was issued by the Clinton administration, the same administration that issued the Executive Order on Environmental Justice, and the subsequent drafts that did address EJ issues were published by the Bush administration, which had a more contentious relationship with EJ advocates, while Republicans controlled both houses of Congress. The expansion of the analysis from one draft to the next seems to be in response to activist pressure.

4.3.4 Measuring Policy Change

Examples in the previous section illustrate how text mentioning “environmental justice” might be added or changed.⁴ Having shown how public comments and pressure can influence policy texts, this section assesses the general relationship between comments and policy texts across all rules. I use two indicators of responsiveness to model the effect of public comments on policy documents: *whether* a policy addresses EJ and change in *how* it addresses EJ, i.e., change in portions of the text discussing EJ. Both measures represent a relatively low bar, indicating whether the agency explicitly paid any attention to EJ. This is similar to measures of “procedural responsiveness” used by Balla et al. (2020). The low empirical bar is appro-

⁴Carefully tracing a few rulemaking processes also helped to avoid analytic pitfalls. For example, one case where an agency did an EJ analysis and then appeared not to respond to a comment discussing EJ was, in fact, due to the fact that the commenter included an annotated version of the draft rule in their comment, adding only “no comment” next to the 12898 section. To correct this, I removed text copied from the proposed rule from comments in pre-processing.

priate because prior research, including the results reviewed in Chapter 3, shows little to no effect of public comments from advocacy groups (Yackee and Yackee, 2006; Balla et al., 2020) and low levels of attention to EJ concerns in particular (Gauna et al., 2001, Revesz (2018)). Recall from Figure 4.1 that only 10% of rules even mention environmental justice.

4.3.4.1 Measure 1: Adding Text Addressing EJ to Final Rules

For the subset of draft rules that did not address EJ, I measure whether agencies added any mention of “environmental justice” in the final rule. Such additions usually take the form of an “E.O. 12898” section where the agency justifies its policy changes with respect to some concept(s) of environmental justice. The next most common addition occurs in the agency’s response to comments, explaining how the rule did not have disparate effects or that they were insignificant.

Agencies may both respond to a comment and add a 12898 section. For example, the EPA responded to several commenters, including Earthjustice, the Central Valley Air Quality Coalition, the Coalition for Clean Air, Central California Environmental Justice Network, and Central California Asthma Collaborative: “EPA agrees it is important to consider environmental justice in our actions and we briefly addressed environmental justice principles in our proposal.” As the commenters noted, the EPA had not, in fact, addressed environmental justice in the proposed rule, which approved California rules regulating particulate matter emissions from construction sites, unpaved roads, and disturbed soils in open and agricultural areas. EPA did add a fairly generic 12898 section to the final rule but did not substantively change the rest of the policy.

Less frequently, an agency may explicitly dismiss a comment and decline to add a 12898 section. For example, the G.W. Bush EPA responded to a comment on

another rule, “One commenter stated that EPA failed to comply with Executive Order 12898 on Environmental Justice...We do not believe that these amendments will have any adverse effects on...minority and low-income populations...Owners or operators are still required to develop SSM plans to address emissions...The only difference from current regulations is that the source is not required to follow the plan” (71 FR 20445). As these examples illustrate, agencies may add text addressing environmental justice that would not satisfy critics. This measure merely indicates whether the agency engaged with the claims.

Most frequently, agencies neither responded to comments nor added a 12898 section.

4.3.4.2 Measure 2: Changing Text Addressing EJ in Final Rules

Where draft rules did address EJ, I assessed whether a rule changed *how* it discussed “environmental justice” between its draft and final publication.⁵ When an agency addresses EJ in the draft rule, it is almost always in a section about how it addressed E.O. 12898. In many cases, much of the text of final rules, including 12898 sections, remain exactly the same between draft and final versions. To measure change, I parse draft and final rules into sentences and identify sentences containing the phrase “environmental justice.” If an agency leaves these sentences unchanged between the draft and final rule and adds no new sentences mentioning EJ, this suggests that the agency did not engage with comments raising EJ concerns.⁶

⁵Occasionally, there is more than one version of a proposed or final rule on a rulemaking docket. Here I opt for an inclusive measure of change that counts change from *any* proposed to *any* final rule. If the change occurred between the first and second draft of a proposed rule, I count it as a change. This best captures the concept of rule change. However, estimates are similar if we only count cases where a change occurred between *every* version of the rule.

⁶An alternative approach would be to parse documents by section and assess whether E.O.12898 sections are identical. Parsing by sentences has three advantages: it is computationally faster, it avoids problems with section numbering and other frustrations with section matching, and it captures attention to EJ outside of this section, especially in the section responding to

4.4 Results: Changes in How Policy Documents Address Distributive Justice

4.4.1 Are final rules more likely to address environmental justice after comments do so?

When agencies did not address environmental justice in the draft rule, they are more likely to add EJ language when comments raise EJ concerns. Descriptively, there is a large difference in the rate of addressing EJ between rules where commenters did (33 percent) and did not raise EJ concerns (4 percent). However, in most cases (67 percent), agencies did not respond at all when commenters raised EJ concerns.

Rates of adding EJ in rules without EJ comments have decreased over time, leveling out at 3 percent during the Obama and Trump presidencies. Rates of adding EJ when commenters raised EJ concerns are consistently much higher but also decreased over time, from 57 percent under G.W. Bush to 26 percent under Trump. EPA had a relatively high baseline rate of change (10 percent), which increased to 52 percent when comments raised EJ concerns. Most other agencies also added EJ at a higher rate when comments raised EJ concerns; indeed, most agencies almost never added mentions of environmental justice when comments did not raise EJ concerns.

To account for differences across presidents, agencies, and the number of comments, I estimate logit regressions. For models 1 and 2 in Table 4.3, the outcome is whether the agency added environmental justice to the final rule. The predictors

comments. If an agency is paying attention to EJ issues, sentence matching will likely detect it. However, other measures, such as the percent of EJ sentences changed, the percent of words in a 12898 section that changed, or the change in topic proportions (Judge-Lord, 2017), could be useful in future work.

are whether comments raised EJ concerns, the number of unique (non-form letter) comments addressing EJ, the total number of comments (including form letters), and the interaction between the total number of comments and whether any comments raised EJ concerns. Models 1 and 3 also include the agency's prior rate of addressing EJ in final rules (see Table ??). Models 3 and 4 are the same as models 1 and 2, except that the outcome is whether the policy text changed how EJ is discussed (described in the next section).

All models include fixed effects for the presidential administration. Models 2 and 4 also include fixed effects for each agency instead of controlling for each agency's prior rates of addressing EJ. Thus, estimates in Models 1 and 3 include any variation *across* agencies that is not attributable to prior rates of addressing EJ, whereas estimates in models 2 and 4 only rely on variation *within* each agency. All estimates rely on variation *within* each presidential administration. All predicted probabilities shown below include agency fixed effects, models 2 and 4.

Models 1 and 3 show that the agency's prior rate of addressing EJ in their final rules is a strong predictor of adding EJ language. While many agencies make policies that could be framed as "environmental," and all policy decisions have distributive consequences, institutions have norms and procedures that lead policymakers to see problems in different ways and thus be more or less receptive to EJ claims. The *Policy Receptivity Hypothesis* (4.3) predicts a correlation between past rates of addressing EJ and receptivity to comments raising EJ claims. We see such a correlation both for adding text and changing existing EJ text.

4.4.1.1 The Predicted Probability of Added Text

As logit coefficients are not easily interpretable, Figures 4.5, 4.6, and 4.8 show the predicted probability of a final rule addressing environmental justice when the draft

Table 4.3: Logit Regression Predicting Change in Rule Text

Dependent Variable	1	2	3	4
	EJ Text Added	EJ Text Added	EJ Text Changed	EJ Text Changed
EJ Comment	2.414*** (0.164)	2.298*** (0.082)	0.555+ (0.321)	0.568*** (0.013)
Log(Comments+1)	0.305*** (0.054)	0.232*** (0.027)	-0.142 (0.105)	-0.159*** (0.031)
Log(Unique EJ Comments+1)	0.649+ (0.392)	0.687+ (0.405)	0.333*** (0.077)	0.374*** (0.032)
EJ Comment*Log(Comments+1)	-0.283*** (0.033)	-0.202*** (0.018)	0.064 (0.100)	0.066*** (0.014)
Agency EJ Ratio	8.342*** (0.340)		1.910+ (1.076)	
Num.Obs.	11 315	7067	1864	1842
AIC	3232.9	3084.8	2161.4	2126.9
BIC	3298.9	3290.7	2211.2	2226.3
Log.Lik.	-1607.436	-1512.396	-1071.705	-1045.469
Std.Errors	by: president	by: president & agency	by: president	by: president & agency
FE: president	X	X	X	X
FE: agency		X		X

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

rule did not.

Controlling for average rates of policy change per agency and the number of comments, Figure 4.5 shows a large increase in the probability of policy change when comments raise EJ concerns. This supports the *Distributive Claims Hypothesis* (4.1). When comments raise distributive justice concerns, they are more likely to be addressed in the final policy. Rates of adding EJ language decreased after the G.W. Bush Administration, but differences between presidents are small compared to the difference between rules that did and did not receive EJ comments. Other variables are held at their modal values: the EPA, zero additional EJ comments, and one comment total.⁷

⁷All predicted probability plots below also show probabilities at the modal values for other variables: President Obama, the EPA, zero additional EJ comments, and the median number of total comments (one comment for models 1 and 2; four comments for models 3 and 4) unless oth-

Figure 4.5: Probability that "Environmental Justice" is Added Between Draft and Final Rules by President

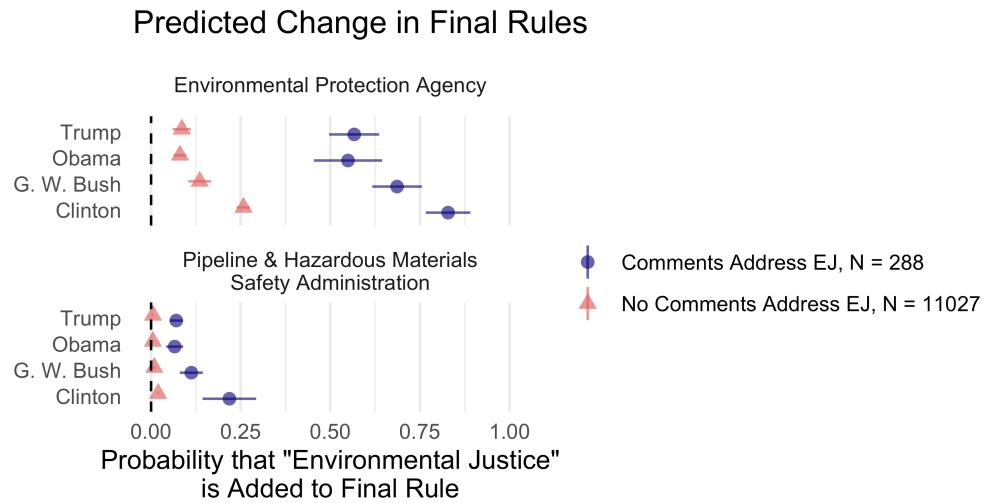


Figure 4.6 shows the probability that an agency will add EJ language given different total numbers of comments. At low numbers of total comments (i.e., low levels of public attention), a single comment raising environmental justice is a strong predictor that language mentioning environmental justice will be added to the final rule. For rules with less than ten comments (most rules), one comment mentioning EJ is associated with a 47 percent increase in the probability that EJ will be addressed in the final rule. This supports the *Distributive Claims Hypothesis* (4.1). However, at low levels of public attention and pressure, the probability that an agency will add EJ language still tops out around 50 percent—even when comments raise EJ concerns, agencies often do not address them.

As the number of comments increases, the probability that a rule will add text addressing EJ increases. This supports the *Public Attention Hypothesis* (4.4)—policy change is more likely when there is more public attention to a policy process. Simultaneously, the relationship between any one comment raising EJ and agencies

erwise specified. Plots by president or agency show models estimated with president or agency indicators rather than fixed effects.

addressing EJ in the rule is less strong when there are more overall comments. In the small portion of highly salient rules with 10,000 or more comments, the presence of any one comment raising EJ concerns has a much smaller relationship with agencies adding EJ to the text. Even without EJ comments, a rule with 10,000 comments is predicted to add EJ language 38 percent of the time, 30% higher than a rule with few comments and no EJ comments. This is evidence against the *Conditional Pressure Hypothesis* (4.5)—the number of comments matters (i.e., the scale of public attention) matters regardless of whether these comments explicitly raise EJ concerns. However, as shown in Figure 4.3, few rules with 10,000 or more comments do not have at least one comment mentioning EJ, so we are highly uncertain about estimates of the impact of EJ comments with high levels of public attention. We can be much more confident about the relationship between comments raising EJ concerns and rule change at lower, more typical levels of public attention.

The probability of “environmental justice” appearing in the final rule also increases with the number of unique comments mentioning “environmental justice” in model 2. Figure 4.7 shows that there is a much higher probability of seeing EJ language added when 100 unique commenters raise EJ concerns, compared to when only one commenter does so. This supports the *Repeated Claims Hypothesis* (4.2).

Figure 4.8 shows the predicted probability of EJ being added to rules at different overall rates of addressing EJ in final rules (“Agency EJ Ratio” in Model 1). The Federal Emergency Management Agency (FEMA), the EPA, and the Federal Transit Administration (FTA) have the highest baseline rates of addressing EJ (46%, 41%, and 38%, respectively) and also the greatest predicted responsiveness to EJ comments on proposed rules that did not address EJ. The Federal Motor Carrier Safety Administration (FMCSA) and Army Corps of Engineers (COE) have lower baseline propensities to address EJ. At just under the average baseline ratio of 10%,

Figure 4.6: Probability Environmental Justice is Added Between Draft and Final Rules

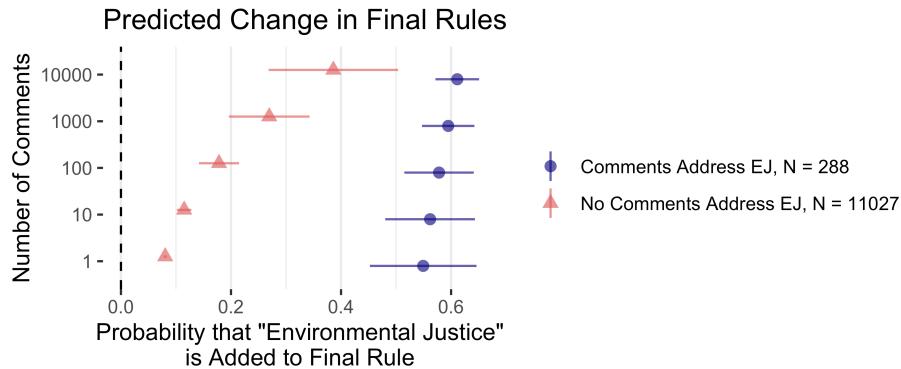
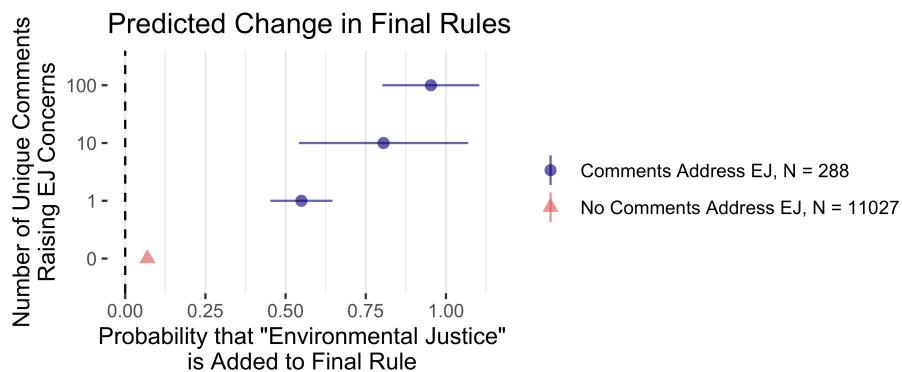


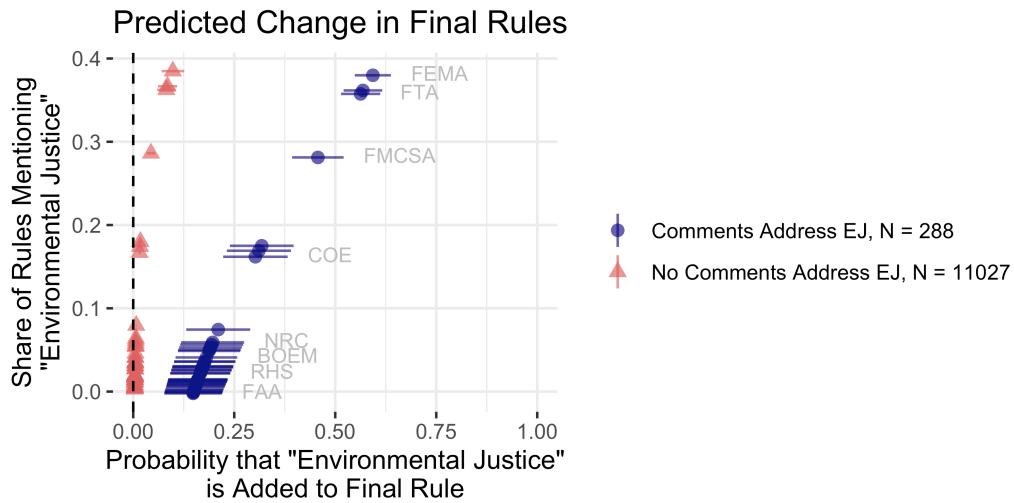
Figure 4.7: Probability Environmental Justice is Added Between Draft and Final Rules by Number of Comments Raising Environmental Justice



the Nuclear Regulatory Commission (NRC) has an even smaller predicted increase when commenters raise EJ concerns. The Rural Housing Service (RHS), Bureau of Ocean Energy Management (BOEM), and Federal Aviation Administration rarely address EJ in their final rules and have even lower predicted levels of responsiveness to EJ comments.⁸ The strong correlation between a tendency to address EJ and responsiveness to comments raising EJ concerns is strong evidence for the *Policy Receptivity Hypothesis* (4.3).

⁸Appendix Figure ?? offers an alternative approach, estimating individual agency effects, where possible.

Figure 4.8: Probability Environmental Justice is Added Between Draft and Final Rules by Share of Rules Addressing Environmental Justice



4.4.2 Are rules more likely to change how they address environmental justice when comments mention it?

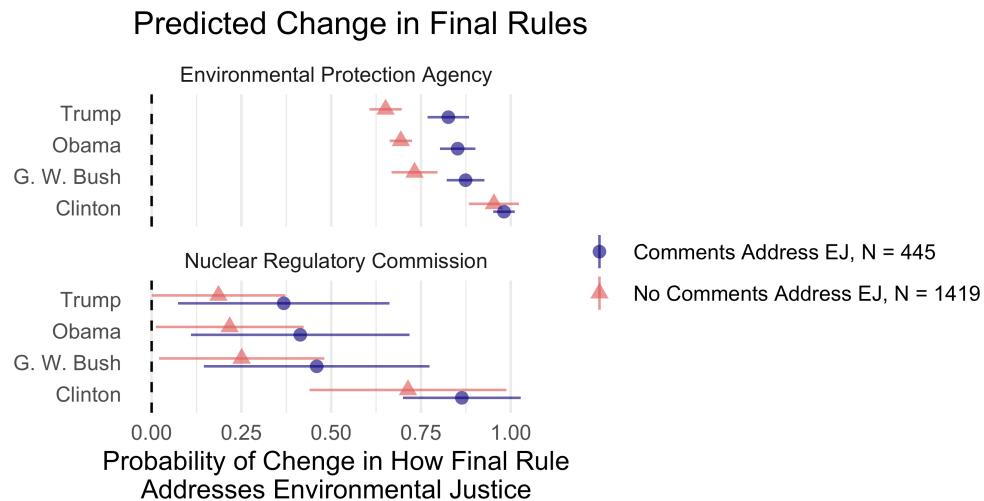
Turning to rules that do address EJ in the draft, we also see responsiveness to comments raising EJ concerns, now measured as whether any sentences containing “environmental justice” changed between draft and final rule. Models 3 and 4 in Table 4.3 are the same as Models 1 and 2, except that the dependent variable is now whether any sentences mentioning EJ changed between the draft and final rule.

Most rules that addressed EJ in the draft were published by the EPA. The EPA had a high rate of baseline change, which increased when comments raised EJ concerns. Other agencies had too few draft rules mentioning EJ to make strong inferences, but many changed how they discussed EJ 100 percent of the time when comments raised EJ concerns, while inconsistently doing so when comments did not.

4.4.2.1 The Predicted Probability of Changed Text

Controlling for average rates of change per agency and the number of comments, Figure 4.9 shows little difference in baseline rates of changing EJ language across the Bush, Obama, and Trump presidencies. All are significantly lower than the Clinton administration’s rate, which could be related to Clinton’s Executive Order on environmental justice or simply an artifact of the limited sample of rules posted to regulations.gov before the mid-2000s.

Figure 4.9: Predicted Change in How Environmental Justice is Addressed Between Draft and Final Rules by President



For draft rules that already addressed EJ, the relationship between the total number of comments and policy change is in the opposite direction posited by the *Public Attention Hypothesis* (4.4). The logged total number of comments is inversely related to change in the final rule text. The more comments on a proposed rule, the less likely it is to change. Rules are more likely to change when they receive fewer comments. Thus, the total number of comments has the opposite relationship to *how* rules that already addressed EJ changed as it did to *whether* rules added any EJ text. While the *Public Attention Hypothesis* (4.4) accurately explained the

adding of EJ text where none existed in the draft, the opposite is true for changing a text that already addressed EJ. Instead, this result supports the competing intuition that more salient rules may be harder to change because the agency has anticipated public scrutiny. Their position stated in the draft is more likely to be the position of the final rule.

As shown in Figure 4.10, EJ comments have a small but discernable relationship to the probability of rule change at typical (low) numbers of comments. As the total number of comments increases, the estimated difference between policies that did and did not receive EJ comments increases. When no comments mention EJ, a rule that receives 10,000 comments is much less likely to change than a rule that received only 10. Again, this suggests that agencies have already stated their final policy position in high-salience draft policies. When comments do raise EJ concerns, more public attention has little impact on the probability of policy change. Figure 4.11 shows the probability that an agency will change EJ language at different numbers of unique comments raising EJ concerns. Unlike the general level of public attention, specific attention to EJ issues is positively related to change in rule texts. Sentences mentioning discussing EJ are more likely to change between draft and final rules when 100 comments raise EJ concerns than when only one comment raises EJ concerns.

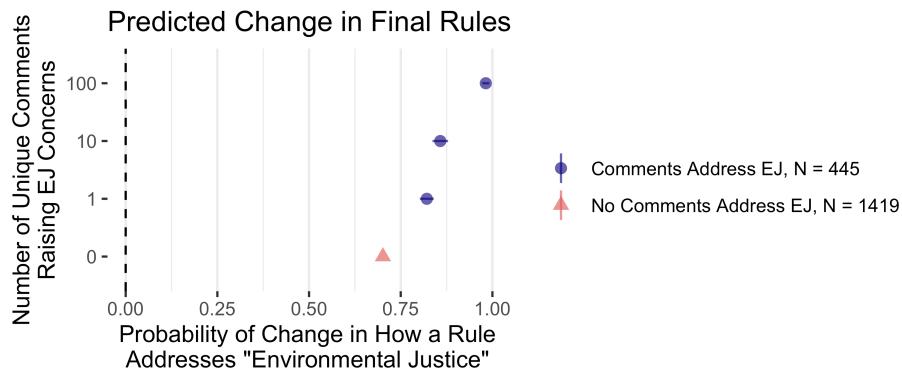
4.5 Conclusion

This analysis presents a rare, systematic account of a social movement's impact on specific policy outcomes across institutions and over time. It illustrates the importance of ideas in policymaking and how social movements can affect the policy process—even technocratic processes like agency rulemaking, where most U.S. law

Figure 4.10: Predicted Change in How Environmental Justice is Addressed Between Draft and Final Rules by Number of Comments



Figure 4.11: Probability Environmental Justice is Added Between Draft and Final Rules by Number of Comments Raising Environmental Justice



is now made.

When activists raise issue frames like environmental justice, there is a higher probability that policymakers engage in discourse that highlights the distributive effects of policy. However, baseline rates of addressing environmental justice in rule-making are so low that, even when activists raise EJ concerns, most policy documents pay no explicit attention to EJ. This general lack of attention persists across agencies and across the G.W. Bush, Obama, and Trump administrations. Indeed, I find surprisingly small differences across administrations in both baseline rates of considering EJ and responsiveness to public pressure. There is a great deal of varia-

tion across agencies, suggesting that policy receptivity and responsiveness to public input are conditional on institutional factors. Some agencies are more receptive to claims about distributive justice than others.

Bureaucracies are specialized institutions built to make and implement certain kinds of policies based on certain goals and types of legitimate knowledge. Each agency has distinct norms and biases. Some may see an issue as “environmental” when others do not. Likewise, some may see disparate impacts that demand consideration as issues of fairness and distributive “justice” where other officials, with different norms and training, see no such disparity. In short, some policymakers appear to see their policy area as more related to environmental justice than others and thus be more receptive to commenters’ concerns.

The policy outcomes suggested by an environmental justice analysis depend on how the populations of concern are defined. In some cases, those raising environmental justice concerns present it as an economic inequality issue, leading policy to account for disparate impacts on low-income populations. In other cases, groups raise claims rooted in cultural practices, such as fish consumption among certain tribes. As occurred in the Mercury Rule, the analysis in subsequent drafts of the policy used evaluative criteria specific to these communities. Thus, policy outcomes depend on the specific environmental justice concerns raised. Future research should assess the relationship between distinct types of EJ claims and corresponding policy changes.

Which communities and concerns are raised by pressure campaigns depend on second-order representation—who makes decisions in the organizations that mobilize public pressure. Examining which groups raise environmental justice concerns and second-order participation in these organizations’ advocacy decisions validates some of the skepticism about who is able to participate and make their voice heard.

Elite groups dominate policy lobbying, even for an issue like environmental justice. National advocacy organizations frequently request that regulators protect “all people” or even “low-income communities of color.” However, this more generic advocacy may not lead to the same outcomes as participation by groups that can present more specific local environmental justice concerns unique to a community.

Several types of organizations raise environmental justice concerns. Some are generic progressive advocacy organizations like CREDO. Others are community-based organizations like WEACT. Linking these two types are high-capacity national organizations like the Sierra Club and Earthjustice that frequently partner with local organizations for more place-based litigation and campaigns. National advocacy groups that partner with frontline community groups may be more likely to raise local concerns in national policymaking than groups like CREDO that focus almost exclusively on national campaigns. Given the importance of federal policy for local environmental outcomes, and advocacy organizations’ potential to draw policymakers’ attention to environmental justice issues, future research should examine the quality of partnerships between frontline communities and national advocacy organizations.

The quality of representation is more than an academic concern. Policymakers must make sense of representational claims in order to understand the political environment in which they act. Political information like petition signatures thus has the power to affect policy. While lobbying disclosure requirements could be amended to provide other information about how well groups represent the constituencies they claim to represent (Seifter, 2016), letter-writing campaigns are one of the only strategies currently available to demonstrate issue-specific congruence between the positions of groups and the people they claim to represent (see Chapter 2).

The above analysis focuses on one particular type of political action that is likely correlated with other forms of activism, lobbying, and civic engagement. For example, future research could explore connections between pressure campaigns and protests, both for organizers and participants. Likewise, future research could measure media attention to agency rules and the various issue frames that media coverage promotes. It is difficult to disentangle the effects of co-occurring inside and outside lobbying strategies. However, future research could look at other tactics pathways for activists to raise distributive justice concerns and affect policy. For example, campaign leaders often meet with policymakers, commission scientific reports, and encourage letter-writing to politicians.

Future work could also explore connections between geography, identity, and participation in campaigns. To date, environmental justice scholarship has focused on geography-based inequalities. These inequalities and harms may have cross-cutting effects on civic participation. On the one hand, exposure to environmental harms may inspire civic engagement, especially around distributive justice frames like environmental justice (Taylor, 2012). On the other hand, economic and environmental inequality create inequalities in the time and resources for civic participation (Piven and Cloward, 1977, Soss, Hacker and Mettler (2007)). The receptivity of government institutions to different identities may also affect the tactics activists use (Taylor, 2012).

In the end, the above analysis offers some clarity on two poorly understood and rarely linked features of American politics: the policy impact of social movements and the role of public pressure in bureaucratic policymaking. It offers some hope that policymakers may at least acknowledge concerns raised through direct democracy mechanisms like public comment periods. At the same time, it highlights how policymakers rarely explicitly address the disparate impacts of policy, even when

directly confronted with distributive justice concerns. Social movements do affect the policy process in aggregate terms, but there are steep odds to overcome in any given policy fight.

— 5 —

Conclusion

The legitimacy of bureaucratic policymaking is said to depend on the premise that rulemaking provides for public voice (Croley, 2003, Rosenbloom (2003)). Yet, to date, normative debates about the value of public comment processes have had little systematic empirical knowledge to draw upon. If input solicited from ordinary people has little effect on policy outcomes, directly or indirectly, it may be best understood as providing a veneer of democratic legitimacy on an essentially technocratic or elite-driven process. Worse, if public pressure campaigns are largely astroturf—misleading impressions of public support sponsored by narrow private interests—it could further tilt the scales of the policy process toward concentrated economic power.

In this chapter, I first discuss the implications of my theory and findings for the study of bureaucratic policymaking. Section 5.2 then suggests some avenues for future research. Section 5.3.3 concludes with implications for current debates over how to think about the value of public participation and what those values—combined with the findings of this dissertation—imply for policy reforms.

5.1 Findings

This dissertation has made several steps toward better understanding public engagement in bureaucratic policymaking.

Chapter 2 set out a theory of why groups participate and offer the most comprehensive assessment to date of participation in bureaucratic policymaking. In contrast to much of the debate over the value that the lay public may or may not provide as individuals, I argue that engaging in federal policymaking is almost exclusively a collective affair. Supporting this argument, I find that most civic participation in bureaucratic policymaking results from pressure campaigns from advocacy groups. Given the barriers to even knowing about, much less engaging in bureaucratic policymaking (Kerwin and Furlong, 2011), it is unsurprising that people who participate are almost rarely alone.

My theory and evidence for *mobilized* public engagement have implications for scholarship. First, we learn little by comparing form letters to comments written by lawyers (Seifter, 2016, pg. 1313); instead, we must study these as two tactics used by the same organizations and lobbying coalitions. Second, public participation is *mediated* through organizations; studying civic participation means studying the organizations that mobilize people. While I focus on public pressure campaigns targeting bureaucratic policymaking, many of the theories and methods that I advance should be well-suited to study other situations in which organizations mobilize public pressure.

Public pressure campaigns targeting agency rulemaking in the U.S. are overwhelmingly sponsored by public interest groups. Compared to business groups, I theorize that public interest groups more often have incentives to expand the scope of the conflict, and I show that they more often do. However, mobilizing is also

a tactic that requires resources, leading the vast majority of mobilizing to be led by a few national advocacy organizations. The resources required to lobbying in national policy means that a small set of large organizations often mobilize other organizations with less capacity for policy advocacy (as documented by Nelson and Yackee (2012), English (2019*b*), and Dwidar (2021*b*)). I show that these same large advocacy organizations mobilize almost all public participation. The implication is that lobbying coalitions are the proper unit of analysis for most studies of public participation or interest group influence in bureaucratic policymaking—not individuals or even organizations. While studying lobbying coalitions is more difficult than studying individual organizations, this dissertation has developed theories and methods to systematically study the composition and influence of lobbying coalitions across institutions and over time.

Chapter 3 builds on my theory of why groups opt to mobilize public pressure to include both direct and indirect pathways of policy influence. Both pathways are contingent on a number of institutional features related to how bureaucratic institutions process incoming information (more on this below). It is difficult to assess the direct relationship between public pressure and lobbying success because the policies that groups target are correlated with their likelihood of success. My theory of why groups mobilize, set out in Chapter 2, predicts that private interest groups are more likely to mobilize public pressure only when it is likely to help their cause. And indeed, the results presented in 3.4 show that pressure campaigns sponsored by private interest groups have a higher correlation with lobbying success. This could be evidence that public pressure campaigns sponsored by narrow private interests are more influential—perhaps because they are more surprising, causing agency officials to update their beliefs about public opinion. However, the confounded and endogenous relationship between who chooses to launch a pressure campaign and

who wins makes it difficult to draw firm conclusions about the direct effects of public pressure campaigns from these data.

My analysis in Chapter 3 suggests that public pressure campaigns are most likely to influence bureaucratic policymaking indirectly by attracting the attention of members of Congress. The scale of public attention and pressure campaigns, in particular, are highly correlated with involvement from members of Congress, and coalitions with more members of Congress are more likely to win. While both pressure campaigns and legislator engagement may be driven by the salience of the policy process, increasing the salience of the policy process is often the main goal and a plausible effect of pressure campaigns (more on this in Appendix C). Thus, while members of Congress may also be driven to engage in rulemaking by related factors like media coverage, public pressure campaigns are almost certainly very intentionally pushing those other levers of power while simultaneously mobilizing public participation in the policy process. If we view mass comment campaigns as a proxy for a coalition's broader lobbying efforts to raise awareness and expand the scope of the conflict, we can more confidently say that pressure campaigns likely affect the behavior of members of Congress.

Chapter 4 investigates another potential mechanism of direct influence: claims about distributive justice. My analysis suggests that both pressure campaigns and minority activism can affect the discourse of policymaking, including the preambles to policy documents where agencies justify their proposed and final policies. When commenters raise distributive justice concerns, agencies are much more likely to address these concerns. The more people who raise such concerns, the more likely it is that agencies address them. Raising the overall level of public attention can have a similar effect as raising specific concerns. Agencies are more likely to add a discussion of how policies address environmental justice when comments raise jus-

tice concerns *or* they receive large numbers of comments. This may be related to the fact that courts are more likely to uphold policies with high levels of participation (Judge-Lord, 2016). In contrast, when an agency already addressed environmental justice in their proposed rule, rules with more comments were less likely to change, supporting the hypotheses that more salient rules may be harder to change because the agency has anticipated public scrutiny. Their position stated in the draft is more likely to be the position of the final rule.

If I had found that most public comments were the result of astroturf campaigns, the implications would be clear: public comment periods would be merely a veneer for economic power. Conversely, if I had found that public comments were mobilized by a nationally representative set of organizations and that they were highly effective in reducing the bias toward businesses in rulemaking, the implications would also be clear: public comment periods would democratize policy outcomes and should be expanded.

Instead, my findings are mixed. Public pressure campaigns do systematically counter the narrow private interests that usually dominate bureaucratic policymaking, but it is not clear how effective they are. Specifically, it is not clear that they are more effective than pursuing representation more indirectly through the legislative branch. The number of allies in Congress that a coalition mobilizes is the only clear predictor of lobbying success that lobbying coalitions have any control over.

The few organizations that dominate public pressure mobilizing are—for the most part—not the “usual suspects” (few of them lobby as frequently as the Chamber of Commerce or the American Petroleum Institute). However, the breadth of the constituency represented by those organizations is unclear. On the one hand, they regularly mobilize millions of genuine supporters. On the other hand, the interests are concentrated on certain policy issues (especially environmental issues) and not oth-

ers (for example, transportation safety). Even within the policy areas they operate, it is not clear how well they represent the people for whom they claim to speak.

These findings raise as many questions as they answer. The next section briefly discusses a few of the many opportunities for future research to build on my analysis.

5.2 Future research

5.2.1 Interest Group Representation

To the extent that public pressure campaigns shape agency decisions, a broader research program is needed to investigate who exactly these campaigns mobilize and represent. My analysis of second-order representation in comments raising environmental justice concerns shows that the large national advocacy groups that dominate public pressure organizing often claim to represent groups that tend to be excluded from policymaking. Sometimes this is done in collaboration with disenfranchised groups, and sometimes it is not. Much more research is needed to assess the quality of second-order representation in coalition lobbying.

Unlike classic pluralist assumptions about how interest group representation operates—where an organization represents a defined class or membership—pressure campaigns mobilize an open-ended list of potential supporters that theoretically includes most of the public. Indeed, a key piece of political information that campaigns generate is signals about the potential for a movement to grow and further expand the scope of conflict. For example, a large public pressure campaign may signal impending letter-writing campaigns targeting members of Congress. Pressure campaigns are also associated with protests and increased media attention. Expanding the scope of conflict often comes with a threat to

further expand the scope of conflict. Policymakers know that their policy decisions shape the political conflicts in which they are embedded.

5.2.2 Networks and Lobbying Coalitions

In Chapter 2, I show that most public pressure campaigns are coordinated by a relatively small number of organizations that repeatedly lobby both with and without pressure campaigns. Lobbying coalitions range from two organizations to hundreds. These data are flush with opportunities for network analysis using organizations as nodes and coalitions as edges. Simple measures like node centrality may tell us a great deal about the structure of advocacy coalitions and how they change over time and across policy areas. Because every comment is linked to a specific policy and has a timestamp, there may be opportunities to study the evolution of networks over time. For example, do small, local, or specialized groups comment first and then recruit more general national advocacy group allies to amplify their message? Or do large national advocacy organizations more often recruit smaller groups to grow their coalition's size and diversity? One could observe trends over time both within a given comment period on one proposed rule and over decades across rules.

Anecdotes from my data pose questions for network research. For example, large environmental organizations increasingly use environmental justice rhetoric; is this related to the number of ties they have to frontline activist groups? If so, did the ties or the rhetoric come first? By observing the same organizations lobbying in different coalitions over time, these data allow time-variant network analysis. Another example: environmental groups often supported the Obama administration's policies but occasionally opposed them. When they did, one of their key progressive allies in mobilizing efforts, Organizing For America (formerly President Obama's

campaign organization, Obama For America), was conspicuously absent from the coalition. These data allow network analysis with lobbying coalition and policy-level covariates (e.g., supporting or opposing a given president's agenda).

Organizations' use of different social aggregation technologies offers one specific opportunity for studying issue networks and lobbying networks. Public comments are often generated through third-party nonprofit advocacy platforms that usually serve either the political left (e.g., Care2, MandateMedia, DemandProgress, and Daily Kos) or political right (Americans for Prosperity). Additionally, there are for-profit petition platforms like change.org and companies that serve a variety of political and corporate causes (e.g., SalesForce and VoterVoice). VoterVoice, for example, is a product of the government relations firm FiscalNote. FiscalNote specializes in lobbying on legislation, while VoterVoice specializes in "grassroots" advocacy services. VoterVoice states on their webpage:

Founded in 2000, VoterVoice, our flagship advocacy solution, was designed to fill a gap in the market for a robust tool that would provide high value to users and keep innovating to meet the needs of modern digital communication. As the market leader, we continue to set the trends and prioritize the features that drive results for you. Our vision remains simple: Deliver a seamless, powerful platform that lets you inspire advocates to action, so you can impact policy through actionable insights. We strive every day to honor our commitment to the 2,400 associations, nonprofits, and corporations who rely on us." (<https://info.votervoice.net/our-story>, 2021).

Finally, there are a large number of front groups for corporate lobbying campaigns, many of which are run by government relations firms under multi-year contracts from industry associations. For example, I discuss Energy Citizens in [2.3.1](#).

The constellation of nonprofit and for-profit advocacy tools that different organi-

zations use provides a distinct layer of nodes and edges (in addition to the policies on which they are lobbying and the coalitions they lobby with). For example, many of the national progressive advocacy organizations seemed to pay less attention to some issues (e.g., immigration) than others (e.g., climate change). The result was that immigrant advocates more often generated comments through change.org petitions rather than the nonprofit social aggregators that other progressive causes tended to use. These patterns of lobbying, mobilizing, and organizing behavior offer rich information about evolving issue structures and political alliances.

5.2.3 Public Pressure and Congressional Oversight

Members of Congress engage in agency policymaking in a variety of ways, only some of which are systematically captured in the data used to estimate the relationship between public pressure and legislator behavior in Section 3.4. Comparing the dataset on congressional behavior that I have assembled through this dissertation to other data on congressional engagement in bureaucratic policymaking could yield insights about both legislative behavior and bureaucratic policymaking. For example, when members of Congress submit official “comments” on an agency rule or forward their constituent comments (often, legislators do both), they are almost certainly logged in the public record on regulations.gov. However, if legislators do not want their communications to appear in the public record, they may contact a different office (for example, the secretary’s office rather than the program office issuing the rule). Judge-Lord, Grimmer and Powell (2018) find systematic variation in how members contact agencies and sub-bureaus, and Powell, Judge-Lord and Grimmer (2020) show that legislators often advocate on behalf of campaign donors.

5.2.4 Endogeneity

Assessing the impact of pressure campaigns is difficult because an organization's decision is endogenous to the organization's perceived probability of success and correlated with other factors we care about (for example, whether the organization is a business or nonprofit). Future research might disentangle different motivations for launching campaigns by measuring the amount of effort that organizations put into sophisticated lobbying. While different types of organizations have different capacities for sophisticated lobbying (e.g., the ability to hire lawyers and scientists), organizations also vary in the amount of effort they put into such lobbying. Small investments in sophisticated lobbying relative to the scale of public organizing may indicate that the organization was mobilizing supporters for reasons other than affecting policy. (It could also indicate that the organization perceives the policy fight to be more political than technical). This approach does not fully address the problem that lobbying behavior depends on the expected probability of success, but it may at least capture the extreme cases where organizations mobilize primarily for reasons other than influencing the policy at hand.

5.2.5 Mechanisms of Influence

As theorized in 2.2 and 3.2, the causal process potentially linking public pressure and policy decisions depends on how institutions filter and process the information they receive. When agencies receive large amounts of public comments, they often hire private-sector consultants to process and summarize public input. The instructions that agencies give to their consultants and the summaries that consultants produce offer a rich and systematic way to study the processing of political information. Researchers should be able to obtain these through Freedom of Information

Act (FOIA) requests.

Another way to study how agencies process comments and the political information they contain would be to study the information that agencies (or their consultants) do and do not record about comments. For example, when a commenter fails to identify their name or organization when submitting comments, agencies occasionally fill this information in with “Unknown.” Agencies do this for mass comments as well, tagging a comment “Mass comment - organization unknown.” Comments that my methods identified as nearly identical were sometimes tagged as mass comments and sometimes not. This variation may offer a way to observe the extent to which an agency is processing—and thus capable of reacting to—political information. For example, recall the astroturf campaigns sponsored by the American Petroleum Institute (API) in 2.3.1.1. While all of these form letters resembled API press releases, some were identified as being associated with API-sponsored campaigns while others were not, suggesting that the agency may have been aware that API was mobilizing in some cases and not in others. This variation may provide leverage to assess whether public pressure campaigns are more likely to increase lobbying success (e.g., of API) if the agency explicitly associates them with an organization or coalition.

5.2.6 Methods of Measuring Policy Influence

Chapters 3 and 4 offer three methods to assess the impact of public pressure on bureaucratic policymaking: large-scale hand-coded lobbying success, detailed case studies, and computational methods that measure change between draft and final policy documents. Each of these methods could be improved upon.

The measures of lobbying success, position, and opposition used in Chapter 3 do not distinguish different dimensions of conflict within each policy. For example,

tribal governments and advocacy organizations often lobby in coalitions with environmental groups against extractive industries on public lands but raise distinct objections related to tribal sovereignty. While I distinguish tribal sovereignty interests as a distinct and overlapping lobbying coalition, I do not distinguish which of their multiple interests are opposed. My data currently reduce support and opposition to a single spatial dimension, meaning that all reasons for supporting a policy are considered to be “opposed” if another coalition opposes the rule (even if for a different reason). This coding could be refined by disaggregating policies into multiple issues (dimensions of conflict) and assessing coalition lobbying dynamics on each dimension of conflict.

While I do not explicitly engage the vast literature on “process tracing” methods in the qualitative parts of Chapter 4, these methods informed my approach. Because notice-and-comment rulemaking under the Administrative Procedure Act is an unusually structured policy process, it is an excellent candidate for these methods. Compared to almost any other political phenomenon, rulemaking has clear inputs, outputs, and critical junctures that can be aligned and compared across multiple observations. Cases where rules span multiple administrations (like the Mercury rule discussed in 4) and rules that reverse rules published under previous administrations may be especially good candidates for process tracing. While atypical and inconvenient for the present research, the fact that the Trump administration published new rules on many of the same rulemaking dockets on which the Obama administration published rules presents clear criteria for selecting rules that are obviously related to previous rules.

There are opportunities to improve computational measures of policy change and lobbying success (Carpenter et al., 2020). Using the same methods that I use to group comments into coalitions (outlined in 2.3.2) and assess change in how policy

documents discussed environmental justice (4.3.3), we can systematically capture which words (and thus the percent of words) changed between draft and final policy text. The challenge is linking these changes to commenter demands, which may also be done through my text reuse methods or a combination of other text similarity measures (Rashin, 2017).

We may also combine hand-coding and computational text analysis tools. I will focus on two of the many opportunities on this front: using hand-coded data as training data for machine learning tools and using computational methods to analyze hand-selected parts of the text. First, hand-coded lobbying coalitions provide a corpus of related texts that may be used to train classifiers to automatically detect lobbying coalitions. Trained classifiers may perform much better than unsupervised clustering methods (models not trained on coded data).

Second, human coders are particularly adept at identifying and classifying important parts of texts. For example, humans can easily identify sentences where commenters suggest policy changes. Once identified, computational tools that rely on similar words and phrases to link comments with changes in policy text may provide much better measures of lobbying success than they would if using the entire text of a comment. Additionally, hand-coded metadata, such as the pro/con position of a comment, may help avoid challenges that natural language processing tools have with semantic features like negation. For example, we will be much more confident in whether an organization is asking an agency to make a change or not to make a change. Finally, hand-coded lobbying coalitions can allow inferences about lobbying success to leverage larger pools of texts that we know are asking for similar policy changes.

5.3 Re-thinking Public Participation in Bureaucratic Policymaking

One of the main contributions of this dissertation has been to clarify a way of thinking about and studying public comments. In light of the empirical evidence in the previous chapters, I now revisit some of the dominant ways of thinking about public comments among scholars and practitioners who are currently debating reforms to participatory processes. I start with a sketch of the various positions staked out by administrative law scholars (who have done nearly all of the work on this topic), each rooted in different theories of democracy. I then discuss several specific challenges and proposed reforms to the policy process.

I conclude that reforms underway in U.S. federal institutions that solicit, collect, and process comments are already heading toward enhancing participation and the quality of political information that it generates. However, certain additional reforms, particularly those that call for more transparency of mobilizing groups, would further improve the political information available to agencies and outside observers. I have argued that we should see civic participation in bureaucratic policymaking as a collective activity mediated by mobilizing organizations. This perspective focuses our attention on advocacy organizations: who they are, who they represent, who they are mobilizing, and how they are mobilizing—all potential targets for research and policy reform. Specifically, this perspective emphasizes reforms that require transparency from lobbying organizations.

5.3.1 Public Pressure Campaigns as Petitions

Understanding mass commenting as a form of petitioning, as I have argued, runs against how scholars often discuss it. With a few notable exceptions (e.g., Cuél-

lar, 2005; Mendelson, 2011; Rauch, 2016), legal scholars often imply that mass commenting is misguided and potentially harmful spam of the technocratic process. In a report submitted as a comment on “Public Forum on the eRulemaking Initiative’s www.Regulations.gov Web site and the Development of the Federal Docket Management System” about reforming the public comment process, Stewart Shulman summarizes the concern:

Many fear a surging wave of electronic mass submissions will overwhelm and thus delay agencies with limited resources. Furthermore, some warn us that electronic rulemaking may already have instantiated a sense that rulemaking decisions are akin to a plebiscite. (EPA-HQ-OEI-2004-0002-0015)

In response to public pressure campaigns, agency officials and observers often assert that comments are not votes and rulemaking is not a plebiscite (Mendelson, 2011). At the same time, agencies frequently do tally up comments on each side. In a 2008 rule regulating border crossing by private aircraft, The U.S. Customs and Border Patrol (CBP) cited the scale of public engagement as providing information on “public sentiment.”

based on the ample number of comments received by the end of the original comment period, CBP believed that public sentiment was accurately captured. (CBP-E8-26621/p-61)

In the preamble to the 2015 Waters of the United States Rule, EPA evoked both majoritarian and pluralist justifications:

This final rule reflects the over 1 million public comments on the proposal, the substantial majority of which supported the proposed rule, as well as input provided through the agencies’ extensive public outreach effort, which included over 400 meetings nationwide with states, small

businesses, farmers, academics, miners, energy companies, counties, municipalities, environmental organizations, other federal agencies, and many others. (2015-13435/p-67)

EPA Administrator Gina McCarthy testified that EPA “received over one million comments, and 87.1 percent of those comments...are supportive of this rule” (Lipton and Davenport, 2015). When the EPA issued a new rule rolling back the definition of Waters of the United States under the Trump administration, the preamble noted that there were “a number of comments” in favor of the new definition but “a significant number of comments” in favor of the 2015 definition (2020-02500/p-231). While not going so far as to explicitly state that a supermajority of commenters opposed the new policy, it is still remarkable that the agency would choose to note quantitative opposition to the policy. For some reason, this political information merited attention.

Agencies also regularly refer to form comments as petitions. When the Bureau of Land Management (BLM) received 6,948 identical emails that did not cite an organization, BLM officials (or consultants) labeled these comments a “Pro Fracking Petition” (LM-2013-0002-5720). A nearly identical comment was signed by “Oil and Gas industry individuals” (BLM-2013-0002-5688). Another batch of 1,289 nearly identical emails submitted through the social networking website Care2.org was labeled “Anti Fracking Petition” (BLM-2013-0002-5721)

The organizations running public pressure campaigns are even more explicit that they consider mass comments to be petition signatures, frequently citing mass comments as “Letters in support of [our organization’s] Comments” (NOAA-NMFS-2012-0059-0023) or a “petition from World Wildlife Fund-US (WWF-US), signed by 271,893 WWF-US supporters” (BOEM-2016-0003-2556). The files containing comments collected by organizations are often named “signatures.pdf.” Clearly, agen-

cies and organizations already consider mass comment campaigns to be a form of petitioning.

How does this understanding of public pressure campaigns as petitions affect the debate over their value? Does a focus on political information affect the debate over the value of public participation in bureaucratic policymaking? In the next subsection, I sketch out some of the normative positions in debates over how to reform the rulemaking process. I then comment on several proposed reforms in light of the theory and findings presented in this dissertation.

5.3.2 The Roots of the Debate

Normative scholars vary significantly in both the value they place on political information and the extent to which they believe that meaningfully engaging large numbers of people is possible. I group those concerned with reforming the public comment process into five camps: (1) Participatory democracy optimists, (2) Regulatory democracy reformers, (3) Pluralist reformers, (4) Rational pluralists, and (5) Skeptics.

Participatory democracy optimists

Optimists see notice and comment as the “purest example of participatory democracy in actual American governance” (Herz, 2016, p. 1). The process is technically open to anyone with an opinion to offer, and agencies are, to an extent, required to respond to substantive ideas. This optimism is rooted in a voluntarist idea of democracy and a value for inclusive and substantive discourse. In its optimism, these observers often assume that those who “ought” to be included do not have large barriers beyond the formal rules of the institution. It also assumes that meaningful discourse among those who participate is possible and likely to occur.

Regulatory democracy reformers

A related camp is slightly less rosy about the current institutions and practices but is nevertheless optimistic that reforms can at least improve the quality of discourse, and thus policy. For these scholars, democracy is more a function of procedure than inclusion. Cuéllar (2014) argues that rulemaking could be more discursive. Mendelsohn (2011) found that agencies often discard non-technical comments but argues that they should not because mass comments contain valuable information. For this camp, the quality of the public debate is more important than the total number of people, their affiliations, or their biases. They emphasize the transformative power of discourse.

Pluralist reformers

A different brand of reformer focuses less on discourse and more on interest group representation. Reform-oriented scholars building on pluralist ideas of representation argue that lobbying organizations should be required to disclose their membership, funding, and decision-making processes (Seifter, 2016). In this view, organized groups—not individuals—are the central actors in public comment processes. However, because agencies often lack information about groups, it is difficult to know how well they represent the people they claim to. Interest groups’ faithful representation of their members is crucial to pluralist ideas of democracy.

Rational pluralists

Another group of scholars focuses on the benefits of organized interest groups and experts that can provide credible technical information. In this view, random or self-selecting members of the general public are not helpful or appropriate parti-

pants in the policy process. “The goal of e-rulemaking is to more fully capture such credible, specific, and relevant information, not to solicit the views of random, self-nominating members of the public” (Herz, 2016). Speaking on the topic of mass comment campaigns, Oliver Sherouse, a regulatory economist at the Small Business Administration, expressed the same sentiment:

It’s worth remembering why we have a public comment process in the first place, which is that the public has knowledge that regulators do not have and that they need to do their jobs well...how do the poor quality mass comments affect small businesses in the comment process? The most obvious problem would be if legitimate small business concerns are just lost in the flood” (GSA, 2019, pp. 31-32).

Sharehouse raised an additional concern that mass-comment campaigns might distract people from writing their own, more informative comments. While recognizing that “not everyone who does not sign onto that kind of [mass] comment would be willing to write a high-quality one,” the tradeoff of a few “quality” comments for many “poor quality” comments is worthwhile. (GSA, 2019, p. 32) This perspective is open to limited public participation, but only certain concerns are legitimate, for example, the opinions of client industries and new technical information on which to base rational analyses.

Skeptics

The most skeptical camp goes even further, arguing that open solicitations to the general public should be abolished. From the observation that the lay public usually has little to offer a technocratic process, they conclude that it is a waste of resources to solicit opinions that won’t be counted. More importantly, this camp holds civic republican ideas about the proper relationship between citizens and the

state. It defines a democratic process as one that follows as straightly as possible from the elected branches. The goal is to de-politicize bureaucratic policymaking.

5.3.3 Reforming the Policy Process

The theory and findings in this dissertation are most compatible with what I have called the “pluralist reformer” project. While the discursive ideals of “regulatory democracy” optimists and reformers may be possible (at least at a small scale), their goal of including the lay public in a more discursive policy process is very far from how I have shown that civic participation in bureaucratic policymaking currently occurs. The rational pluralist camp either ignores the value of what I call political information or dismisses it as a normative ill.

The “pluralist reformer” perspective aligns with the theory and results presented in Chapter 2. Interest group organizations are key intermediaries between the public and policymakers. Some make dubious claims about whom they represent. Other organizations organize mass comment campaigns, providing more concrete evidence of a supportive constituency.

Transparency More challenging is the concern that narrow, concentrated interests that typically dominate rulemaking will sponsor astroturf campaigns, thus creating a false impression of public support. This is a real concern. If dark money can secretly create impressions of support for a policy, the case for expanding participation is weaker. My analysis suggests that this is less common than genuine participation, but I did uncover examples of astroturf and fraud.

As with any form of public participation, fraud merits attention. Organizations submitting comments on behalf of people who do not exist or did not consent is akin to fraudulent petition signatures or fake constituent letters being sent to members of Congress.

Reforms requiring more transparency in the process by which organizations represent segments of society, like those proposed by Seifter (2016), would help guard against astroturf and fraud. Transparency also clarifies political information, making it more useful both to agencies and outside observers. To the extent that participation is mobilized by organizations, agencies can ask these organizations to be transparent about their sources of funding.

However, reforms requiring groups to disclose information about their funding and membership only go partway to address groups' representational claims, which often extend far beyond their membership. Such claims are more difficult to assess. However, similar reforms could require disclosure of the funding and methods by which organizations gather petition signatures. Organizations or individuals acting in their professional capacity as organizations (not as individuals) could be required to disclose the source of the money that paid them to produce their comments. Likewise, organizations running campaigns could be required to disclose the sources of funding for the campaigns and how much they spent mobilizing public support. These numbers will provide a helpful denominator for agencies to gauge public enthusiasm and other kinds of political information that public pressure campaigns provide. More information about petition signers could help clarify which segments of the public are participating. As discussed in Chapter 4, the people that organizations claim to represent are not always the people who sign their petitions.

Authentication. If comments are allowed to be collected by third parties like the Sierra Club (recall Figure 2.4), the government can encourage but may not be able to enforce authentication tools like CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart). Organizations that upload large batches of comments already go through a verification process, but this does not address the veracity of their petition signatures. Requiring confirmation or authen-

tication by email or phone alone would be a barrier to participation.

The most secure approach that allows third parties to gather comments may be to authenticate a sample of comments by asking each commenter to provide an email address or phone number at which to receive a message asking them to confirm the text of their comment. Asking for a second interaction with the agency raises the cost of participation but may also make participation a slightly richer experience. People may be more likely to feel that their voices were heard. Of course, many people will fail to authenticate their comments, but like mass comments themselves, the number of people willing to take the time to authenticate offers information on the intensity of genuine support. Unauthenticated comments need not be discounted, but authenticated comments may indicate stronger preferences.

More importantly, authentication guards against identity theft—fake political information. It is difficult to provide a large number of fake phone numbers, and real phone numbers used fraudulently may generate complaints, alerting the agency that the campaign may be engaging in fraud. Again, fraud complaints need not discount an entire campaign. Opponents of a campaign by the Sierra Club, for example, could submit fraudulent comments through their system in order to complain when asked to authenticate and thus cast doubt over the campaign. However, a legitimate campaign will also have a portion that will authenticate, allowing rough estimates of the scale of true support versus fraud.

Some means of authentication, such as email, may be slightly more open to fraud than others, like texts, but the benefits of lower barriers to participation may outweigh the greater risk of fraud. Because mass comment campaigns include a fairly large number of individuals, especially if the barriers to participation are lower, there are many opportunities to identify fraud of any significant scale, and the stakes of a few fraudulent comments slipping through the cracks are low.

Lower Barriers to Participation A second facet of reform may center around increasing access, both for organizations and the people they mobilize to participate.

Is it possible to broaden civic participation in bureaucratic policymaking? Is it worthwhile? Many assume not, but my analysis offers some hope. As I show in Chapter 2, more participation generally means more diverse and public-spirited voices at the table. As I show in Chapter 3, more public participation is related to more oversight from members of Congress (in part because they receive copies of public comments from their constituents). As I show in Chapter 4, agencies respond when people raise new concerns, especially when a large number of people raise them. At the same time, there is little evidence that mobilizing more people has an impact on the outcomes of particular policy fights. The coalition with the most comments is not necessarily more likely to win. It is possible that narrow private interests are able to strengthen their cases by showing evidence of broader public support. However, the correlation between pressure campaigns backing business interests and lobbying success could also simply be the result of selection effects: public interest groups have incentives to mobilize on policy fights even when they are likely to lose, whereas private interest groups do not.

Critics may argue that opening the door wider to petition campaigns lets in biases. Will this information be biased? Yes, but all information provided by lobbying organizations has a bias. Indeed we know that people who opt to participate are disproportionately privileged. An unequal society leads to unequal participation, but higher barriers to entry only make this worse.

Several recent reform proposals align with viewing mass comments as a form of petitioning. Rauch (2016) suggests making comment periods more like polls. Nationally representative polling may be a good investment in political information

for some rules, but we know from polling research that individuals do not always have clearly formed opinions, and much depends on question-wording. The reality is that American politics is animated through groups—people rely on organizations they trust to keep them informed and engaged. Raso and Kraus (2020) suggest a similar reform whereby people could “upvote” comments with which they agree. Raso and Kraus (2020) lament the “mail from the public dumped on the agency’s doorstep” and claim that “upvoting” would “make rulemaking more interactive. The happy result would bring us closer to the deliberative national town meeting.” In contrast, I argue that, empirically, mass comment campaigns already act as a poll or upvote. An upvoting feature would thus codify the existing dynamic, not fundamentally depart from it. Either way, the possibilities for “deliberation” with the mass public likely exist in the historical push and pull of pressure groups and government institutions over time, not among millions of people upvoting their policy position in a single rulemaking process.

Reducing the Cost of Providing and Processing Information Reformers often highlight the value of linking comments to particular questions or sections of a draft rule. Technology can certainly improve sophisticated debates about a rule’s technical provisions. Indeed, sophisticated commenters have adopted track-changes technology to provide marked-up versions of draft rules. New technologies may provide an even more important role in gleaning political information from the “torrents of email” generated by mass comment campaigns.

Parsing the questions Agencies often specifically ask questions and solicit comments on specific topics in a proposed rule. These topics offer an initial structure to allow commenters to self-identify the topics of their comments. The American Bar Association’s Section of Administrative Law and Regulatory Practice recommends “technology that would allow agencies to identify categories that commenters could

select when submitting comments.” To stay open to new ideas, lobbying organizations should be allowed to petition the agency to add topics to the menu or ask additional questions.

For example, agencies may encourage groups to mobilize in support of the groups’ answers to the questions that agencies ask. Given past trends, this will likely take the form of petition campaigns, and agencies should have mechanisms to receive those comments as such.

Offering Answers Agencies could also lower the bar to participation by posting answers to their questions from different organizations and allowing people to co-sign or disagree with them. This is both easier for participants and requires less work for agencies to interpret where the commenter stands.

5.4 Final Remarks

Can the masses provide useful information to policymakers? If the theory set out in this dissertation is correct, they can, but the extent to which U.S. federal agencies currently have the capacity to process and use this information is unclear. Reforms could make biases more transparent and broaden the number and diversity of groups that are able to participate.

— A —

Codebook

This codebook describes the coding of (1) public comments on proposed agency rules, (2) the response to comments, and (3) rule changes from draft to final.

A.1 Coding Comments

A position will eventually be identified for all comments, but the first step is to identify the positions of comments by organizations and elected officials (other comments are generally identified automatically from textual similarity). This scheme (especially the `org_type`, `ask`, and `success` variables) builds on work by Susan Webb Yackee (e.g., Yackee, 2006; Yackee and Yackee, 2006).

Initially, we code position on the main dimension of conflict (it may be a challenging interpretive task to identify the main dimension of conflict raised by a comment).

`position =`

- “1” Opposed to the rule change for moving in the wrong direction (e.g., “We need stronger, not weaker regulations” or “These regulations are already bad for our business, we should not make them even more strict”)
- “2” Opposed to the change, prefers no change, though they might be ok with some change
- “3” Supports the rule change, but asking for less (e.g., “we applaud EPA’s efforts to regulate ..., but would prefer less severe limits” or “The Guild recognizes the need to have uniform regulations which the proposed rules address. Still, the Guild takes issue with some of the proposed changes”)
- “4” Supports the rule change as is
- “5” Supports the rule change but asking for more
- “6” Opposed to the rule change for not going far enough (e.g. ” While the proposed rule may improve current protections to some degree, it is utterly inadequate...If the agency fails to revise the rule to incorporate such mea-

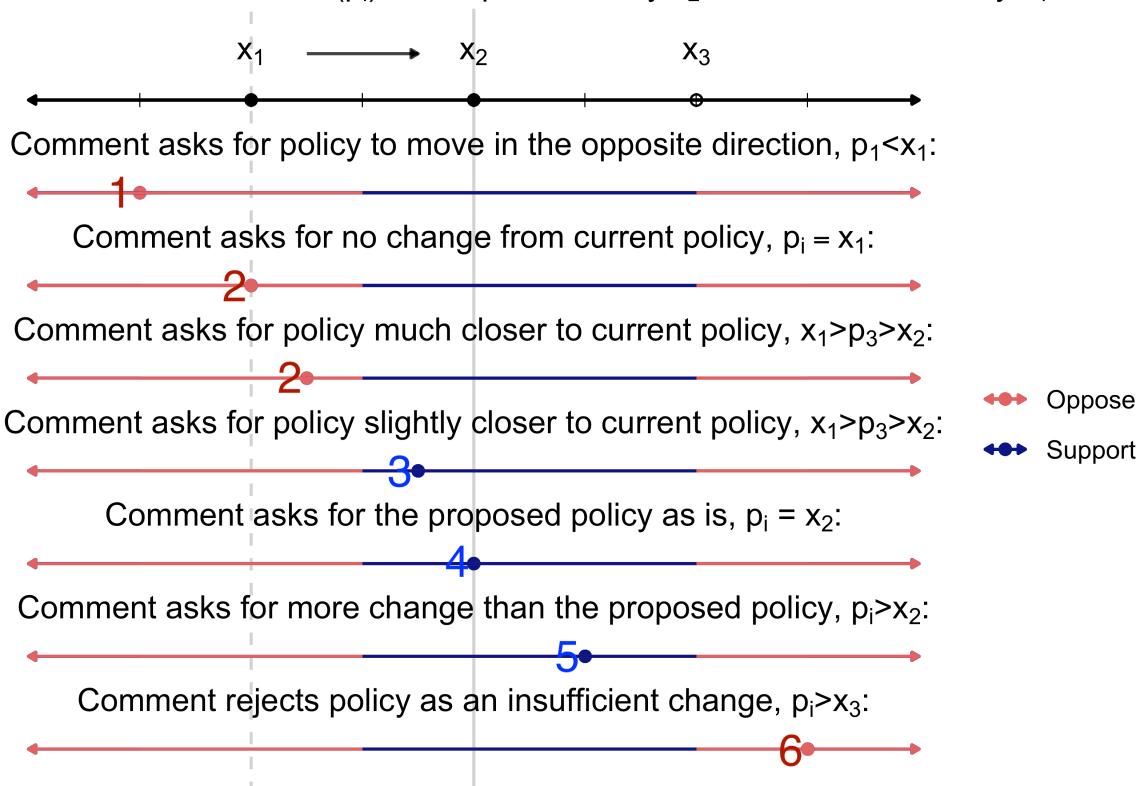
sures, then they should withdraw the proposed rule completely” <https://www.regulations.gov/comment/NOAA-NMFS-2020-0031-0668>)

- “0”. Only if there is really no position of any kind on the policy

Note that a commenter can support a rule that is moving in a deregulatory direction. This means that they oppose regulation and thus support the rule (because the rule is rolling back regulation). What matters here is their position on the change from the status quo (current policy) to the proposed rule, not on regulation in general. These positions correspond to a commenter’s ideal policy (their “ideal point” in the policy space). If a commenter’s ideal policy is at position 1 in the figure below, the proposed rule change is moving policy in the opposite direction they want it to move, hence their position is “opposed to the rule change for moving in the wrong direction.” Similarly, if the current policy (the status quo) is a commenter’s ideal policy, their ideal point is at or near the current policy (x_1), position 2, and they are opposed to the proposed rule change.

Figure A.1: Instructions for Coding the Position of a Comment Given Current Policy, X_1 , and proposed policy, X_2

Position of Commenter i (p_i) on Proposed Policy x_2 , Given Current Policy x_1



If the commenter’s ideal policy is at positions 3, 4, or 5, these ideal policies are closer to the new policy, X_2 than the current policy X_1 , and thus they are likely to

support the rule change. If the commenter's ideal policy is at position 6, the change from X1 to X2 is insufficient for them to support it (even though it is technically moving in the direction they would like). This is rare, but commenters do occasionally reject proposed rules for doing too little. Their hope is that by rejecting this proposed policy (even though it moves policy in their preferred direction), they might get a better policy later.

position_certainty =

"1" = fairly certain (may also be left blank), "2" = unsure, "3" = totally unclear

coalition_comment = Is this commentator lobbying alongside other commenters in a fashion that suggests they are a coordinated coalition? If so, put the name of one of the other main organizations in the coalition here and use this for all comments with compatible asks. Coalitions may be implicit (compatible asks, even if they don't mention the other orgs) or explicit (e.g. "In terms of specific reservations about the proposed changes, we associate ourselves with the letter from ACLU"). There may often be only one coalition commenting on a rule (especially for rules with few comments). It is harder to identify the sides of a debate where only one side shows up, but we must be careful not to artificially break up essentially aligned interests just to have a conflict between commenters. The conflict that matters is generally on the main dimension(s) of conflict at issue in the policy. If everyone is 3s and 4s (or 1s and 2s) they will more often all be one big coalition pushing generally in the same direction with compatible asks than several smaller ones pushing in different incompatible directions. Position and coalition are not synonymous, but they are highly correlated.

coalition_type =

The key distinction here is typically whether the lead organizations will profit from the coalition's advocacy (even if some of the orgs in the coalition are nonprofits)

- "public" if this coalition is primarily lobbying on behalf of some idea of the public interest (two organizations lobbying on the same rule may have opposing ideas of the public interest, but oftentimes public interests conflict with private interests)
- "private" if this coalition is mainly on behalf of private interests (even if not their own or if using language evoking the public interest, as most lobbying does)

comment_type =

- “org” any kind of organization making substantive suggestions
 - “elected” Is this comment from an individual elected official (e.g., U.S. House or Senate). Add a specific type of elected official after a semicolon ”elected; house, elected; senate, elected; governor, elected; state senate, county commissioner, etc.
 - “individual” an individual who is writing in their personal capacity, not on behalf of an organization or office (even if they use an organization’s letterhead), and is not part of an organized petition-like campaign
 - “corp campaign” a form letter used by many (often small) businesses (org_name and org_type will still be the org (e.g. the name of the small business and “corp;small business”))
 - “mass” a petition-like campaign
 - “mass;grassroots” - individuals who genuinely care
 - “mass;astroturf” campaigns are intended to create a deceptive appearance of public support. The group organizing the campaign is only doing so because they are being paid. The individuals mobilized are often either deceived (e.g., intentionally misled about the policy or its likely effects) or financially incentivized to participate. In the extreme, astroturf campaigns may use the names of fake or non-consenting individuals. In contrast, a more grassroots campaign may also require funding, but groups would choose to use resources for such a campaign even without the quid pro quo, and individuals are mobilized based on some pre-existing interest or belief. While grassroots campaigns may involve simplification, spin, and even mild deception, it is not decisive to the campaign. If you find yourself thinking “why are these people supporting this company/industry?” it might be astroturf.
 - “mass;corp campaign” - genuine support/opposition from a large number of businesses, often small businesses.
-

A.1.1 If `comment_type` = “org”:

`org_name` = the name of the organization. This column will often be filled in automatically with an algorithm’s best guess. Please revise these names to be the clearest, standardized, and unique version of the organization’s name.

If more than one org signed the comment, try to pick the main organizer (e.g., the one whose letterhead is used). If unclear, go with an org we have seen before (this will increase the chances it is linked to the right set of lobbying coalitions). If still unclear, go with the first signatory. When more than one org signed the comment, add “; coalition” to the end of whatever `org_type` codes you give it.

org_type = the type of organization, “corp”/“corp group”/“gov”/“ngo” etc. (create additional codes as needed). Definitions:

- “corp” = individual business (add subtypes as applicable, corp;small business, corp;coop, corp;law firm, corp;bank; corp;financial firm, corp;consultancy)
- “corp group” = “business interests” (members or representatives of a trade association, corp group;trade association)
- “gov” = government interests (“gov;state” “gov;local” “gov;federal” “gov;tribal” ’gov;regional” or “gov;foreign”) within the United States. If states (e.g. Governors or Attorneys Governor), list out all states in org_name.
- “ngo” = non-business and non-government interests.
Use a semicolon to indicate subtypes, such as:
 “ngo;advocacy”
 “ngo;legal”
 ngo;professional (e.g. an association of doctors or other professionals)
 “ngo;philanthropy”
 “ngo;Foundations”ngo;union”
 “ngo;credit union”
 ngo;pressure group (a group mobilizes pressure campaigns)
 “ngo;membership organization” (org that has members)
 “ngo;university”
 “ngo;thinktank” (an organization that does policy-oriented research)
 “ngo;church” or “ngo;religious”
 - “ngo;ej” Does this org represent an Environmental Justice/frontline community? I.e. are they based in an affected community (see description of “second-order representation” here. There are many additional sub-types of ngo, including advocacy groups, membership groups, professional associations, foundations, charities. These are not mutually exclusive. Use a semicolon to separate multiple tags. Some 501c3s are industry associations; they should be coded as a “corp group.” However many ngos that are not clearly a corp group still advocated for private interests. For example, the Chamber of Commerce represents business interests generally and thus ends up being a member of many private-interest coalitions, even though they may not explicitly be commenting on behalf of a regulated industry as an industry association would.
- “other” = If the org is really in no way in any of the above (e.g. a foreign government)

ask =

The text of the comment (e.g., a sentence) that best captures the overall ask.

ask1, ask2, ask3 =

The text of the comment's top three (if there are three) specific asks or objections (e.g., the proposed rule text they object to or would like to be changed.) If a comment responds to several issues within a rule, try to select the main ask from each of the top 3 issues, not just the first 3 issues they address. For example, if the organization "opposes" or "supports" several proposed changes, but "strongly opposes" or "strongly supports" other proposed changes, that may indicate which issues they care most about. Ultimately, you must put yourself in the organization's shoes, think about their mission and their members, and decide which of the issues they raise are most important to them. Identify the clearest statements of their top 3 aims and include all surrounding text that is on topic for that ask.

If there is only a general sentiment, `ask1` can be the same `ask` (with `ask2` and `ask3` left blank, as they are any time there is not more than one detailed request).

`success, success1, success2, success3` (corresponding to `ask, ask1, ask2, ask3`)

- “2” if, overall, the final rule ended up mostly where requested
- “1” if, overall, the rule ended somewhat close to that requested
- “0” if no adverse changes, but also no requests met, or if the request is moot.
A request may become moot if superseded by another request. For example, if a group requests that the rule is withdrawn, but if not, changed, then withdrawal makes the requested changes moot. Note: If no changes were requested (they requested the rule be published as is), then no adverse changes is actually a 2)
- “-1” if the rule ended up somewhat different/opposite than requested
- “-2” if the rule ended up significantly different/opposite than requested

Note that “-1” and “-2” can include rules being published without requested changes or withdrawn when the group would prefer the rule not to be withdrawn.

`success_certainty =`

“1” = fairly certain (may also be left blank), “2” = unsure, “3” = totally unclear

IMPORTANT NOTE: Asks and success should focus on the change from the proposed to the final rule. For example, if an org likes a rule, but asks that it goes further, and then the rule is rolled back somewhat, this would be an adverse change and thus a -1. If a rule that an org liked was withdrawn, it would be a -2. If they ask for it to be published as is and it is published as is, success is a 2. If they ask for it to be strengthened and it is published as is that is a 0. If their asks are a mix of “stay the course” and “strengthen” and the rule is published without change, we might code that a 0 or a 1 depending on how important the changes demanded were. If their main emphasis was on keeping policy provisions in the proposed rule, no change is a moderate success.

`response =`

Paste the text of the agency's response to the comment. The `final_url` column contains the link to the final rule (where agencies often respond to some comments) in the federal register.

A.1.2 If `comment_type` = “elected”:

Note: this is only for individual elected officials. If a governor or attorney general writes on behalf of the state government that is a “gov” type organization.

`org_name` (or `elected_name`, if your sheet has it) is the official’s full name. If there is more than one official, record the first one, unless they are from the US House or Senate, in which case, record all names separated by “;”

`org_type` (or `elected_type`, if your sheet has it) is the official’s position. For U.S. Senators and Representatives, this should be “Chamber-[STATE ABBREV]” (e.g. “Senate-WI” or “House-NY”). For state representatives, please start with the state to avoid confusion (“Wisconsin Assembly District 4”).

Make sure to code `coalition` and `coalition_type`!

The `ask` and `success` variables are coded as described for `comment_type` = “org”

A.1.3 If `comment_type` = “mass”:

Code `org_name` and `org_type` as the organization mobilizing the comment campaign, if known.

Make sure to code `coalition_comment` and `coalition_type`! Every mass comment must be assigned a coalition!

Keep your eye out for “astroturf” campaigns that appear to advocate for public interest but are really mobilized by private interests. Recall the types of mass comment campaigns from the above description of `comment_type`:

- “mass;grassroots” = individuals who genuinely care
- “mass;astroturf” = individuals who were mobilized by a well-resourced group to create an impression of public support/opposition
And the related `comment_type` if the form letter is signed by businesses rather than individuals:
- “mass;corp campaign” = genuine support/opposition from a large number of businesses, often small businesses.

Leave `ask`, `success`, and `response` columns blank.

Check that the `number_of_comments_received` column matches the number of comments/signatures submitted. If it does not, correct it.

If your sheet has a `transparency` column, code whether the campaign was transparent about its

“sponsor”, “signers”, “both”, or “neither”. If your sheet does not have this column, record transparency comments in the `notes`.

Generally, it is obvious from the letter who they are and how we might verify that. A bunch of names with no contact information is not very transparent, but if they say “these are members of our organization,” that should be enough if we needed to verify. Agencies occasionally post one representative comment for a campaign; this should not be held against an organization if they also provided the others, we could get them if needed. If a sponsor gives their phone number but not their organization, that is not enough. If you have to research to find the org name, that is not transparent. If they submit under a misleading org name, that is also not transparent. I have mostly seen this in corp campaigns, where they try to disguise who paid for the campaign.

If your sheet has a `platform` column, record the tech platform(s) used to generate comments: “VoterVoice” “Care2” “SalesForce” If your sheet does not have this column, record any platform used to generate comments in the `notes`.

If your sheet has a `fraud` column, record any indication of fraud, for example, “DMARC validation failed.” Otherwise, leave this column blank. If your sheet does not have this column, record evidence of fraud in the `notes`.

A.1.4 If `comment_type` = “individual”:

Only code `position`, `coalition`, `coalition_type`, if it is immediately obvious, otherwise, record `comment_type` as “individual” and move on. If an individual comment is very technical—perhaps from a professor—do your best to code the coalition and read carefully to see if the person is writing on behalf of a group. “individual” is only for people writing in their personal capacity.

Leave `org_name`, `org_type`, `ask`, and `success` variables blank, unless the individual’s org also submitted comments on behalf of the org, in which case `org_name` can be helpful for identifying the individual’s coalition, but it is not necessary.

A.2 Coding Responses to Comments

The `final_url` column contains the link to the final rule (where agencies often respond to some comments) in the federal register.

`accept_phrases`: Any text that the agency uses in the response to comments to note they are granting a request made by this commenter.

compromise_phrases: Any text that the agency uses in the response to comments to indicate compromise/partial agreement with this commenter.. A compromise is on the main dimension of conflict.

concession_phrases: Any text the agency uses in the response to comments to indicate a concession that is neither agreement nor disagreement with this commenter.. A concession is off the main dimension of conflict (includes delays).

reject_phrases: Any text the agency uses to indicate the rejection of a suggestion made by this commenter.

NOTE: **accept**, **compromise**, **concession**, and **reject** are mutually exclusive. **commenter_agreement**, **commenter_conflict**, and **pressure** are not. Where more than one type applies to a phrase, separate them with a semicolon.

commenter_agreement_phrases: Any text discussing agreement among commenters (to identify dimensions of conflict) involving this commenter.

commenter_conflict_phrases: Any text discussing disagreement among commenters (to identify dimensions of conflict) involving this commenter.

pressure_phrases: Any text that the agency uses that references the scale or intensity of public engagement, such as the number of comments, on the side of this commenter.

A.3 Coding Rules

At the rule level (see the **proposed_url** and **final_url** columns for the links to proposed and final rules in the federal register), code the proposed policy change and the final result in terms of whether they make regulation more or less stringent. For more on defining regulatory stringency see Judge-Lord, McDermott and Cashore (2020).

Figure A.2: Concepts of Regulatory Stringency

	Program Level	Issues Level
Policy Ends	How comprehensive is the scope of issues addressed?	What are the specific requirements (i.e. policy settings) on each issue? (e.g. the specific size of stream buffer zones, specific best practices)
Policy Means	In aggregate, across all issues, how prescriptive is the regulation? To what extent (e.g. on what portion of issues) are mandatory and substantive thresholds used?	1. How prescriptive is the requirement? 2. What specific ways are they applied ?* (e.g. auditing processes) <i>*Beyond the scope of this paper.</i>

proposed_direction =
The change from the *status quo*

1. Proposed rule change rolls back regulation
2. Small overall deregulatory changes
3. No clear change in the overall regulatory scope or stringency (e.g., a qualitative change in funding criteria)
4. Small overall increases in regulatory scope or stringency
5. Proposed rule change increases overall regulatory scope or stringency

final_direction =

The change from the *status quo*

1. Rule rolls back regulation
2. Small overall deregulatory changes
3. No clear change in the overall regulatory scope or stringency (e.g., a qualitative change in funding criteria)
4. Small overall increases in regulatory scope or stringency
5. Proposed rule change increases overall regulatory scope or stringency

final_relative_direction =

The relative to the *proposed rule* (as if it is the new status quo)

1. Change rolled back regulation relative to the proposed rule
2. Small deregulatory changes from the proposed rule
3. No change
4. Small overall increases in regulatory scope or stringency from the proposed rule
5. Rule change increased regulatory scope or stringency relative to the proposed rule

coalitions =

A list of all coalitions identified in the rule, separated by semicolons, with an estimated percent of all comments belonging to each coalition (including for comments that are not in the org_comments sheet). For each rule, include the percent for each coalition after a dash, with each coalition separated with a semicolon, e.g. “ACLU - 70%; AFP - 25%; AMA - 5%” (it will almost always be more lopsided than this).

issues =

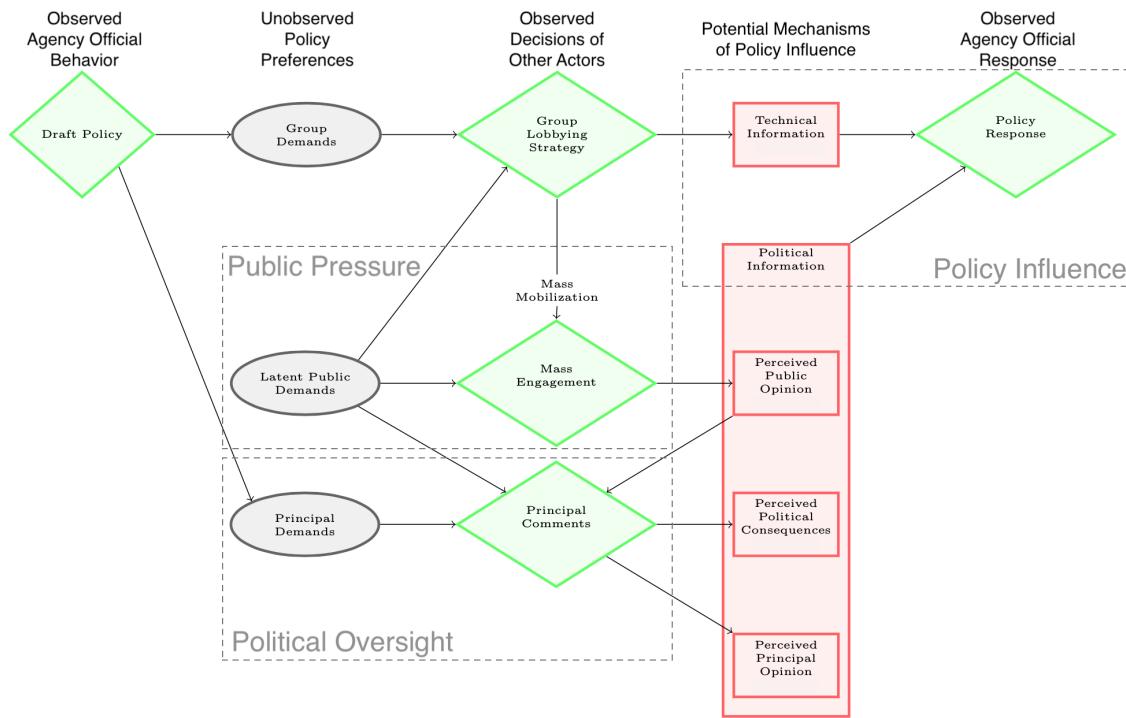
The top three topics of debate in the rulemaking (this may include commenter asks that did not make it into the rule)

— B —

An Expanded Model of Bureaucratic Policymaking

Assembling the models presented in Chapter 2 and Chapter 3, Figure B.1 presents a full picture of the role of public pressure campaigns in bureaucratic policymaking.

Figure B.1: Incorporating Political Information into Models of Bureaucratic Policy-making



— C —

Formalizing the Theory

In Section 3.2.4, I briefly addressed the relationship between my argument and one leading formal model of commenter influence in agency rulemaking. Here, I offer an expanded version of that discussion.

My argument that lobbying strategies like pressure campaigns aim to create political information requires several crucial amendments to existing information-based models of rulemaking. Specifically, I argue that information about the political context in which policymakers operate can persuade them to make policy changes. Allowing policymakers to be persuaded in such a way allows public pressure campaigns to be incorporated into these models. Doing so also resolves some puzzling results of models that assume “fixed” political preferences. Allowing policymakers’ political priorities to be affected by political pressure from commenters (either directly indirectly through, for example, changing the behavior of members of Congress) creates uncertainties about policymakers’ political positions and incentives for lobbying organizations to attempt to affect them by providing political information.

It was not the aim of this dissertation to develop or test the implications of formal models. Rather I briefly review the necessary modifications to one leading formal model in order to illustrate the importance of political information to theories of policymaking. My aim is to illustrate a few of the implications of my argument for formal theory.

In the most sophisticated model of notice-and-comment rulemaking to date, Libgober (2018) posits a utility function for policymaker G as shown in Equation 3.1.

$$u_G(x_f) = \alpha_0 x_f^2 + \sum_{i=1}^N \alpha_i u_i(x_f)$$

where x_f is the spatial location of the final policy, u_i is the preference of “potential commenter” i , and α is a vector of “allocational bias”—i.e., how much the agency decisionmakers care about their preferences α_0 relative to accommodating the preferences of others $\alpha_{i=1:N}$. Bureaucrats balance their own understanding of their mission against their desire to be responsive. In Libgober’s model, $\alpha_{1:N}$ is a

fixed “taste” for responsiveness to each member of society (i.e., each potential commenter), so policy decisions simply depend on their answer to the question “what do people want?”

Incorporating insight about the power of technical information, we might interpret α_0 (the policymakers’ understanding of their own preferences) to be affected by technical information. Including political information in this model requires two additional parameters related to a second question “why would agency officials care?”

First, like other lobbying strategies, public attention and pressure may shift the strategic environment, leading policymakers to strategically shift their allocation in favor of some groups and away from others. Let this strategic shift in allocation be a vector α_s . For example, interest groups may mobilize elected officials to support their lobbying efforts. If these elected officials can sanction or reward agency officials or veto the agency’s policy, their involvement may reshape agency officials’ strategic calculations. Agency officials may then strategically adjust their policy.

Second, campaigns may directly persuade agency officials to adjust their allocational bias, for example, by supporting claims about the number of people an organization represents or the intensity or legitimacy of their policy demands. Let this direct shift in allocations by α_d . This parameter captures persuasion on normative grounds and beliefs about which segments of society (i.e., which potential commenters) deserve the benefits or government policy or should be responsible for bearing the costs. Policies allocate costs and benefits across groups. If an organization makes a persuasive argument for distributional justice or shows that it represents a large segment of the public, officials may update their beliefs and biases about how to allocate costs and benefits.

Let policymakers’ original, immutable taste now be α_t . Having decomposed the policymaker’s allocative bias into three parts (their fixed tastes α_t , shifting strategic environment α_s , and potential to be convinced α_d), the policymaker’s utility function is now Equation 3.2.

$$u_G(x_f) = (\alpha_{t0} + \alpha_{s0} + \alpha_{d0})x_f^2 + \sum_{i=1}^N (\alpha_{ti} + \alpha_{si} + \alpha_{di})u_i(x_f)$$

If, after the comment period, the strategic environment is unchanged and officials remain unpersuaded to change their beliefs about which segments of society deserve favor, α_s and α_d are 0, and the model collapses to the original information game based on fixed tastes. This outcome is less plausible when groups go public and expand the scope of conflict.

Adding these parameters resolves a puzzling result of Libgober’s model. Empirically, rules that receive comments do not always change. This result is impossible in a model where bureaucrats only have known fixed tastes and potential commenters only seek policy changes. For policy-seeking organizations to lobby but fail to influence policy requires that they are either uncertain or wrong about an

agency's allocative bias or their ability to shift it. Incorporating political information allows change and thus uncertainty in an agency's biases.

Even if we assume that policymakers' allocative preferences are known, allowing them to be influenced by commenters means that one commenter's incentives to comment now depend on other commenters' lobbying strategies. This characterization of rulemaking aligns much more closely with empirical studies that show organizations providing technical information as a means of persuading policymakers. Likewise, this characterization of rulemaking aligns with my theory that groups mobilize public pressure campaigns to generate political information that could persuade agency officials to change their position for political reasons.

Incorporating political information allows us to begin formalizing intuitions about mechanisms of influence and thus the motivations for commenting. For example, Libgober (2018) asks, "What proportion of commenting activity can be characterized as informing regulators about public preferences versus attempting to attract the attention of other political principals?" (p. 29). Adding political information to the model allows us to formalize this question: Under what conditions do the decision to comment depend on an organization's beliefs about α_t versus beliefs about α_s ? Empirically, we may often be able to infer that the difference in commenting can be attributed to group i 's beliefs about α_{si} if the behavior of political principals varies but other observed parameter values are similar across rules at a given agency.

Rational-choice explanations of why organizations comment on proposed rules build on an intuition that potential commenters will comment only when the benefits exceed the costs of doing so. This intuition ought to apply to other lobbying strategies such as public pressure campaigns as well. Adding public pressure campaigns as a lobbying strategy to Libgober's model is straightforward. In this model, a potential commenter has negative quadratic preferences centered on their ideal policy p_i and $u_i = -(x_f - p_i)^2$ where x_f is the final policy chosen by the agency decisionmakers. An organization will comment if the cost of doing so is less than the difference between their utility when agency decisionmakers select a policy having been informed about the organization's ideal point p_i versus when they select a policy after having made a guess about the organization's ideal point, z_i . If c_i is organization i 's cost of commenting, then i will comment if it expects to be better off providing information than abstaining:

$$E[u_i|p_i] > E[u_i|z_i] + c_i \quad (\text{C.1})$$

Similarly, an organization will go public when it expects that the cost of sponsoring a pressure campaign to be less than the difference in utility when agency officials select a policy having been informed about the intensity of broader public preferences p_{public} versus when agency officials select a policy having made a guess about the intensity of the attentive public's preferences, z_{public} . While organizations often make dubious claims to represent broad segments of the public, a

petition or mass comment campaign may provide information about p_{public} that agency officials see as more credible. If $c_{campaign,i}$ is organization i 's cost of running a mass mobilization campaign, then i will launch a campaign if

$$E[u_i|p_{public}] > E[u_i|z_{public}] + c_{campaign,i} \quad (\text{C.2})$$

This suggests that public pressure tactics should be more common when agency officials are either poorly informed or distant from public opinion and potentially influenced by the types of political information created by public pressure campaigns.

In addition to informing agencies about public preferences, pressure campaigns may alter the strategic decision environment for agencies. The extent to which changes to the decision environment help or harm an organization's cause may affect their decision to sponsor a public pressure campaign. Public pressure campaigns may shift the strategic environment in at least two ways. First, the general level of public attention may "politicize" a rulemaking. That is, it may make political factors more salient and technocratic factors less salient, perhaps by attracting the attention of political appointees, the White House, or members of Congress. Some organizations will do better and others worse in a more political decision environment. Second, the specific level of public support for an organization's lobbying coalition may affect bureaucrats' decisions to different degrees, depending on how politicized the rulemaking is.

To formalize these two intuitions, let β_i be the effect of the level politicization γ of rule j on organization i 's utility, $E[u_{ij}|\gamma_j]$. Second, let δ represent a general increase in utility for any organization i for an additional unit of public support on rule j given the rule's level of politicization. Let ω_{ij} represent a one-unit increase in support (e.g. an additional petition signature or form letter) for organization i on rule j . More public support may only matter in more politicized decision environments. In more technocratic environments, support may be disregarded. This has several implications:

- Organizations that gain from politicization $\beta_i > 0$ may be double-rewarded for mobilizing pressure because they benefit both from how their campaign increases general politicization β_i and the specific support δ for their position.
- Organizations that receive negative utility from politicization β_i will not sponsor campaigns at low levels of overall politicization.

At some level of politicization, γ , organizations facing an opposing public pressure campaign may have more to gain by counter-mobilizing than they stand to lose by further politicizing the policy process.

Additionally, an organization may comment or run a mass mobilization campaign if it benefits in ways that are independent of policy outcomes. Strategies such as

“going down fighting” can be incorporated by adding exogenous benefit parameters to the utility function of the potential commenter/mobilizer. Let v_i be the benefit of commenting, independent of its effect on the policy outcome, such as pleasing members or reserving the right to sue. Let w_i be the benefit of running a mass mobilization campaign independent of its effect on the outcome of the policy at hand, such as fulfilling expectations of existing members or recruiting new members. An organization's utility function would then be

$$u_i = -(x - p_i)^2 + v_i + w_i \quad (\text{C.3})$$

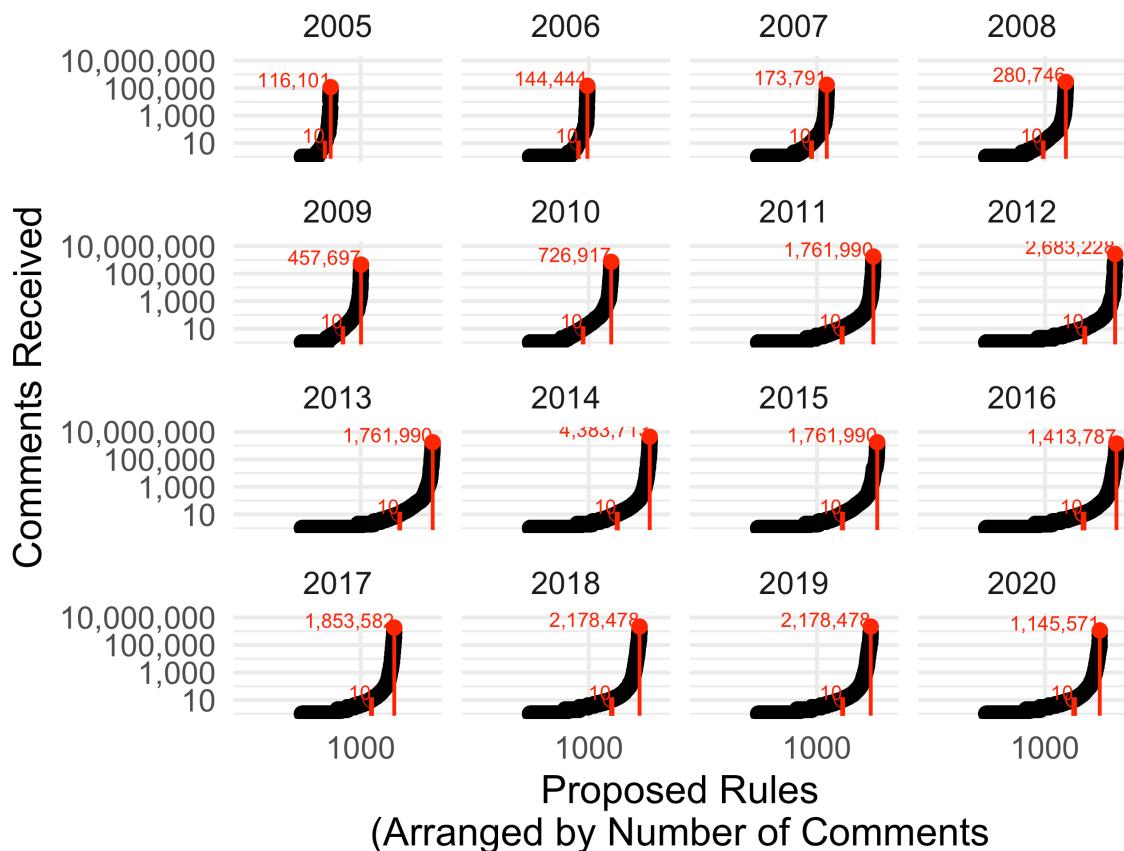
Again, the observed behavior of commenting without policy change becomes a possible result if commenters are allowed a strategy of “credit claiming” or “going down fighting” and incentives to do so.

— D —

Supplementary Figures

D.1 The Number of Comments Per Rule Over Time

Figure D.1: Number of Comments (log scale) per Proposed Rule 2005-2020

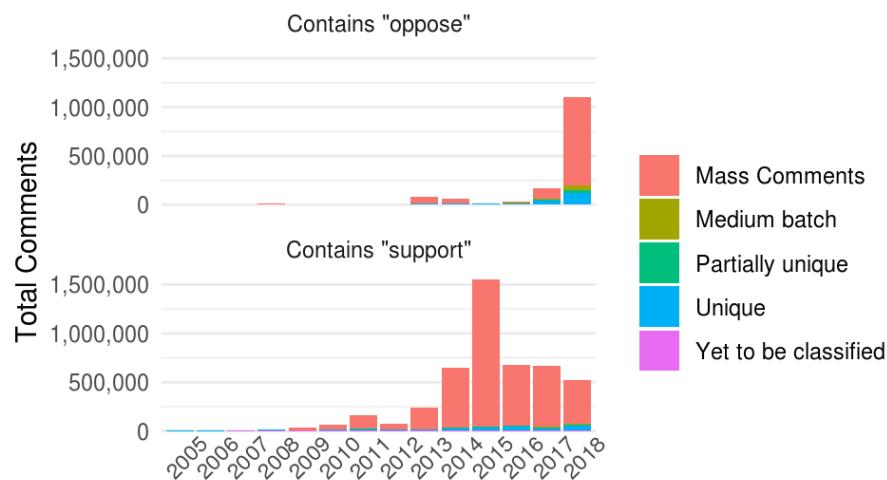


As discussed in Chapter 2, the number of agency rules receiving a large number of public comments has increased over time. Figure D.1 breaks out the data pre-

sented in Figure 2.7 by year. Red numbers show the number of comments received on the proposed rule with the most comments (the one furthest to the right) for each year. For reference, a rule with ten comments is also marked, showing that in every year from 2005 to 2020, the majority of proposed rules open for comment on regulations.gov received less than ten comments.

D.2 Mentions of Support and Opposition

Figure D.2: Comments Containing “Support” or “Oppose” on Draft Rules Posted to Regulations.gov, 2006-2018



In line with findings from the hand-coded data presented Figure 2.15 in 2.4, a search for “Support” and “Oppose” in comment text (Figure D.2) shows a dramatic reversal in support and opposition with the change from the Obama administration to the Trump administration. Mentions of “support” or “oppose” may be a noisy signal—these words are not used in all comments and do not always indicate support for or opposition to a rule. Still, given the partisan asymmetry in the mobilizing groups, it is plausible that this pattern is a result of the changing regulatory agenda due to the change in the presidential administration.

Bibliography

- Abel, Troy D., Debra J. Salazar and Patricia Robert. 2015. "States of Environmental Justice: Redistributive Politics across the United States, 1993-2004." *Review of Policy Research* 32.
- ACUS. 2018. Mass and Fake Comments in Agency Rulemaking. Technical report Administrative Conference of the United States.
- Ahlquist, John S. and Margaret Levi. 2013. *In the Interest of Others: Organizations and Social Activism*. Princeton University Press.
- Andrews, Kenneth T. 1997. "The Impacts of Social Movements on the Political Process: The Civil Rights Movement and Black Electoral Politics in Mississippi." *American Sociological Review* 62(5):800.
- Andrews, Kenneth T. and Bob Edwards. 2004. "Advocacy Organizations in the U.S. Political Process." *Annual Review of Political Science* 30:479–506.
- Arnold, R. Douglas. 1979. *Congress and the bureaucracy: a theory of influence*. New Haven: Yale University Press.
- Bailey, Michael A and Forrest Maltzman. 2008. "Does Legal Doctrine Matter? Unpacking Law and Policy Preferences on the U.S. Supreme Court." *The American Political Science Review* 102(3):369–384.
- Balla, Steven J. 1998. "Administrative Procedures and Political Control of the Bureaucracy." *American Political Science Review* 92(03):663–673.
- Balla, Steven J., Alexander R. Beck, Elizabeth Meehan and Aryamala Prasad. 2020. "Lost in the flood?: Agency responsiveness to mass comment campaigns in administrative rulemaking." *Regulation & Governance* .
- Balla, Steven J, Alexander R Beck, William C Cubbison and Aryamala Prasad. 2018. "Where's the Spam? Mass Comment Campaigns in Agency Rulemaking.".

- Baumgartner, Frank R. and Beth L. Leech. 2001. *Basic Interests: The Importance of Groups in Politics and in Political Science*. Princeton University Press.
- Bawn, Kathleen. 1995. "Political Control Versus Expertise: Congressional Choices about Administrative Procedures." *American Political Science Review* 89(01):62–73.
- Bendor, Jonathan, Amihai Glazer and Thomas Hammond. 2001. "Theories of delegation." *Annual review of political science* 4(1):235–269.
- Berry, Jeffrey M. 1999. *The New Liberalism: The Rising Power of Citizen Groups*. Brookings.
- Berry, Jeffrey M and Clyde Wilcox. 2018. *The interest group society*. Routledge.
- Bierschbach, Richard A. and Stephanos Bibas. 2012. "Notice-and-Comment Sentencing." *Minnesota Law Review* 97(1):24.
- Boulianne, Shelley. 2018. "Twenty Years of Digital Media Effects on Civic and Political Participation." *Communication Research* p. 009365021880818.
- Bueno de Mesquita, Ethan, Mathew C Stephenson and Mathew C Stephenson. 2007. "Regulatory Quality Under Imperfect Oversight." *American political science review* 101(3):605–620.
- Bullard, Robert D. 1993. *Confronting environmental racism: voices from the grassroots*. Boston Mass.: South End Press.
- Bullock, Graham and Hamish van der Ven. 2018. "The Shadow of the Consumer: Analyzing the Importance of Consumers to the Uptake and Sophistication of Ratings, Certifications, and Eco-Labels." *Organization & Environment* p. 108602661880374.
- Burnstein, Paul. 2019. "The influence of organizations on policy: theories, findings, conclusions." *Interest Groups & Advocacy* 8:1–22.
- Burstein, Paul. 2020. "Why Do Lobbying, Protest, and Other Forms of Advocacy Often Fail to Affect Policy? Some Possible Explanations." *APSA Preprints*.
- Caiden, Gerald E. 1984. *In Search of an Apolitical Science of American Public Administration*. Marcel and Dekker.
- Carpenter, Daniel. 2021. *Democracy by Petition: Popular Politics in Transformation, 1790-1870*. Harvard University Press.
- Carpenter, Daniel, Devin Judge-Lord, Brian Libgober and Steven Rashin. 2020. "Data and methods for analyzing special interest influence in rulemaking." *Interest Groups & Advocacy* 9.

- Carpenter, Daniel P. 2001. *The Forging of Bureaucratic Autonomy: Reputations, Networks, and Policy Innovation in Executive Agencies, 1862-1928*. Princeton University Press.
- Carpenter, Daniel P. 2002. "Groups, the Media, Agency waiting Costs, and FDA Drug Approval." *American Journal of Political Science* pp. 490–505.
- Carpenter, Daniel P. 2014. *Reputation and power: organizational image and pharmaceutical regulation at the FDA*. Princeton University Press.
- Carpenter, Daniel P. and George A Krause. 2012. "Reputation and public administration." *Public Administration Review* 72(1):26–32.
- Carpenter, Daniel P., Kevin M. Esterling and David M. J. Lazer. 1998. "The Strength of Weak Ties in Lobbying Networks." *Journal of Theoretical Politics* 10(4):417–444.
- Carrigan, Christopher Michael, Stuart Kasdin and Zhoudan Xie. 2021. "The Politics of Administrative Rulemaking: Rulemaking under Competing Oversight.".
- Carrigan, Christopher and Russell W. Mills. 2019. "Organizational Process, Rule-making Pace, and the Shadow of Judicial Review." *Public Administration Review* p. puar.13068.
- Casas, Andreu, Matthew J Denny and John Wilkerson. 2019. "More Effective Than We Thought: Accounting for Legislative Hitchhikers Reveals a More Inclusive and Productive Lawmaking Process.".
- CBECAL. 2017. "Communities for a Better Environment." <http://www.cbecal.org/>.
- Čermakapek, Stella M. 1993. "The "Environmental Justice" Frame: A Conceptual Discussion and an Application." *Social Problems* 40:5–24.
- Clark, Tom S. 2009. "The Separation of powers, court curbing, and judicial legitimacy." *American Journal of Political Science* 53(4):971–989.
- Clinton, Joshua D. and David E. Lewis. 2008. "Expert Opinion, Agency Characteristics, and Agency Preferences." *Political Analysis* 16(01):3–20.
- Clinton, Joshua D., David E. Lewis and Jennifer L. Selin. 2014. "Influencing the Bureaucracy: The Irony of Congressional Oversight." *American Journal of Political Science* 58(2):387–401.
- Coglianese, Cary. 2001. "Social Movements, Law, and Society: The Institutionalization of the Environmental Movement." *University of Pennsylvania Law Review* 51.

- Coglianese, Cary. 2006. "Citizen Participation in Rulemaking: Past, Present, and Future." *Duke Law Journal* 55(5):943–968.
- Cohen, Linda R. and Matthew L. Spitzer. 1996. "Judicial Deference to Agency Action: A Rational Choice Theory and An Empirical Test." *Southern California Law Review* p. 431.
- Cohen, Marty, David Karol, Hans Noel and John Zaller. 2008. *The Party Decides: Presidential Nominations Before and After Reform*. Chicago: University of Chicago Press.
- Converse, Philip E. 1964. *The nature of belief systems in mass publics*.
- Cook, Jeffrey J. 2017. Setting the record straight: interest group influence on climate policy at the Environmental Protection Agency PhD thesis Colorado State University.
- Cook, Jeffrey J. 2018. "Framing the debate: How interest groups influence draft rules at the United States Environmental Protection Agency." *Environmental Policy and Governance* 28:1.
- Cress, Daniel M. and David A. Snow. 2000. "The Outcomes of Homeless Mobilization: The Influence of Organization, Disruption, Political Mediation, and Framing." *American Journal of Sociology* 105:1063–1104.
- Croley, Steven. 2003. "White House Review of Agency Rulemaking: An Empirical Investigation." *Harvard Law Review* 70(3):821–835.
- Crow, Deserai A., Elizabeth A. Albright and Elizabeth Koebele. 2015. "Evaluating Informational Inputs in Rulemaking Processes: A Cross-Case Analysis." *Administration & Society* 49(9):1318–1345.
- Cuéllar, Mariano-Florentino. 2005. "Rethinking Regulatory Democracy." *Administrative Law Review* 57(2).
- Cuéllar, Mariano-Florentino. 2014. "Administrative War." *George Washington Law Review* 82(1343).
- Dahl, Robert. 1956. *A Preface to Democratic Theory*. University of Chicago Press.
- Dahl, Robert. 1958. "A Critique of the Ruling Elite Model." *American political science review* (52).
- Dahl, Robert A. 1961. *Who Governs?*
- Dahl, Robert A. 1989. *Democracy and its critics*. Yale University Press.

- Davis, Richard. 2011. *Justices and Journalists: The U.S. Supreme Court and the Media*. Cambridge University Press.
- Devins, Neal and David E. Lewis. 2008. “Not-So-Independent Agencies: Party Polarization and the Limits of Institutional Design.” *Boston University Law Review* 88:459–498.
- Dunleavy, Patrick. 1991. *Democracy, Bureaucracy and Public Choice: Economic explanations in political science*. Routledge.
- Dür, Andreas and Dirk De Bièvre. 2007. “The Question of Interest Group Influence.” *Journal of Public Policy* 27(1):1–12.
- Dür, Andreas and Gemma Mateo. 2013. “Gaining access or going public? Interest group strategies in five European countries.” *European Journal of Political Research* 52(5):660–686.
- Dwidar, Maraam. 2021a. “Diverse Lobbying Coalitions and Influence in Notice-and-Comment Rulemaking.” *Policy Studies Journal* .
- Dwidar, Maraam A. 2021b. “Coalitional Lobbying and Intersectional Representation in American Rulemaking.” *American Political Science Review* p. 1–21.
- Earthjustice. 2017. “Our Work.”
- EnergyCitizens. 2014. “<https://www.flickr.com/photos/energycitizens/18274218500/in/photostream/>”
- English, Ashley. 2019a. “Implementing Intersectionality: Women’s Organizations’ Representation of Women During Two Rulemakings.” *Politics, Groups, and Identities* .
- English, Ashley. 2019b. “Where Are All the Single Ladies? Marital Status and Women’s Organizations’ Rule-making Campaigns.” *Politics & Gender* pp. 1–27.
- Epstein, David and Sharyn O’Halloran. 1994. “Administrative Procedures, Information, and Agency Discretion.” *American Journal of Political Science* 38(3):697.
- Epstein, David and Sharyn O’Halloran. 1999. *Delegating powers: a transaction cost politics approach to policy making under separate powers*. Cambridge University Press.
- Epstein, Dmitry, Josiah Heidt and Cynthia R Farina. 2014. “The Value of Words: Narrative as Evidence in Policymaking.” *Evidence & Policy* 10(2):243–258.
- Farhang, Sean and Miranda Yaver. 2015. “Divided Government and the Fragmentation of American Law.” *American Journal of Political Science* 108:2643–2650.

- Farina, Cynthia R. 2018. "Comments on ACUS Proposed Recommendations on Public Engagement in Rulemaking".
- Farina, Cynthia R., Dmitry Epstein, Josiah Heidt and Mary J. Newhart. 2012. "Knowledge in the People: Rethinking "Value" in Public Rulemaking Participation." *Cornell e-Rulemaking Initiative Publications*.
- Farina, Cynthia R, Mary J Newhart and Josiah Heidt. 2014. "Rulemaking vs. Democracy: Judging and Nudging Public Participation That Counts.".
- Farina, Cynthia R., Mary Newhart, Claire Cardie and Dan Cosley. 2011. "Rulemaking 2.0." *University of Miami Law Review* 65(2).
- Feinstein, Brian D. 2021. "Identity-conscious Administrative Law.".
- Ferejohn, John A. and Charles Shipan. 1990. "Congressional Influence on Bureaucracy." *Journal of Law, Economics, and Organization* 6(April 1990):1–20.
- Furlong, Scott R. 1997. "Interest Group Influence on Rule Making." *Administration & Society* 29(3):325–347.
- Furlong, Scott R. 1998. "Political Influence on the Bureaucracy: The Bureaucracy Speaks." *Journal of Public Administration Research and Theory* 8(1):39–65.
- Furlong, Scott. R. and Cornelius M. Kerwin. 2005. "Interest Group Participation in Rule Making: A Decade of Change." *Journal of Public Administration Research and Theory* 15(3):353–370.
- Furnas, Alexander C, Michael T Heaney and Timothy M LaPira. 2017. "The Partisan Ties of Lobbying Firms."
- Gailmard, Sean and John W Patty. 2017. "Participation, process and policy: the informational value of politicised judicial review." *Journal of Public Policy* 37(3):233–260.
- Ganz, Scott C. and Sarah A. Soule. 2019. "Greening the Congressional Record: Environmental Social Movements and Expertise-based access to the Policy Process." *Environmental Politics* pp. 1–22.
- GAO, U.S. Government Accounting Office. 1983. "Siting of hazardous waste landfills and their correlation with the racial and socio-economic status of surrounding communities.".
- Gauna, Eileen, Denis Binder, Colin Crawford, M. Casey Jarman, Alice Kaswan, Catherine A. O'Neill, Clifford Rechtschaffen, Bradford C. Mank and Robert R.M. Verchick. 2001. "A Survey of Federal Agency Responses to President Clinton's Executive Order Number 12898 on Environmental Justice." *Environmental Law Reporter* 31:11133.

- Gellhorn, Ernest. 1972. "Public Participation in Administrative Proceedings." *Yale Law Journal* 81:359.
- Gilens, Martin and Benjamin I. Page. 2014. "Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens." *Perspectives on Politics* 12(03):564–581.
- Gillion, Daniel Q. 2013. *The political power of protest: minority activism and shifts in public policy*. Cambridge, MA: Cambridge University Press.
- Golden, Marissa Martino. 1998. "Interest Groups in the Rule-Making Process: Who Participates? Whose Voices Get Heard?" *Journal of Public Administration Research and Theory* 8(2):245–270.
- Gordon, Sanford C. Gordon and Steven Rashin. 2018. "Citizen Participation in Policymaking: Evidence from Medicare Fee Schedule Revisions."
- Gormley, William T. 1986. "Regulatory Issue Networks in a Federal System." *Polity* 18(4):595–620.
- Grossmann, Matt. 2012. *The Not-So-Special Interests Interest Groups, Public Representation, and American Governance*. Stanford University Press.
- GSA. 2019. "Increasing transparency and public participation."
- Hacker, Jacob. 2003. Privatizing Risk without Privatizing Benefits: Path Dependence, Policy Drift, and Welfare-State Reform in the United States. In *Continuity and Discontinuity in Institutional Analysis*, ed. Wolfgang Streeck and Kathleen Thelen.
- Hacker, Jacob S, Alexander Hertel-Fernandez, Paul Pierson and Kathleen Ann Thelen. 2021. *The American Political Economy: Politics, Markets, and Power*. Cambridge University Press.
- Haeder, Simon F. and Susan Webb Yackee. 2015. "Influence and the Administrative Process: Lobbying the U.S. President's Office of Management and Budget." *American Political Science Review* 109(03):507–522.
- Haeder, Simon and Susan Webb Yackee. 2018. "Presidentially directed policy change: the Office of Information and Regulatory Affairs as partisan or moderator." *Public Administration Research and Theory* 28:475–88.
- Hall, Richard L. and Kristina C. Miler. 2008. "What Happens After the Alarm? Interest Group Subsidies to Legislative Overseers." *The Journal of Politics* 70(4):990–1005.

- Han, Hahrie. 2014. *How Organizations Develop Activists: Civic Associations and Leadership in the 21st Century*. Oxford University Press.
- Harrison, Jill Lindsey. 2019. *From the Inside Out The Fight for Environmental Justice within Government Agencies*. MIT Press.
- Hertel-Fernandez, Alexander. 2019. *State Capture: How Conservative Activists, Big Businesses, and Wealthy Donors Reshaped the American States—and the Nation*. Oxford University Press.
- Herz, Michael. 2016. “E-Rulemaking’s Democratic Transformation: Anticipated, Actual, and Potential.” *Revue Internationale des Gouvernements Ouverts* 3:195–208.
- Hojnacki, Marie, David C. Kimball, Frank R. Baumgartner, Jeffrey M. Berry and Beth L. Leech. 2012. “Studying Organizational Advocacy and Influence: Reexamining Interest Group Research.” *Annual Review of Political Science* 15(1):379–399.
- Hrebenar, Ronald J and Ruth K Scott. 2015. *Interest Group Politics in America*. Routledge.
- <https://info.votervoice.net/our-story>. 2021.
- Huber, John D. and Charles R. Shipan. 2002. *Deliberate discretion : the institutional foundations of bureaucratic autonomy*. Cambridge University Press.
- Hutchings, Vincent L. 2003. *Public opinion and democratic accountability: how citizens learn about politics*. Princeton University Press.
- Jacobs, L.R. and T. Skocpol. 2005. *Inequality and American Democracy: What We Know and What We Need to Learn*. Book collections on Project MUSE Russell Sage Foundation.
- Jewell, Christopher and Lisa Bero. N.d. “Public Participation and Claimsmaking: Evidence Utilization and Divergent Policy Frames in California’s Ergonomics Rulemaking.” *Journal of Public Administration Research and Theory*. Forthcoming.
- Johnson, Stephen M. 1998. “The Internet Changes Everything: Revolutionizing public participation and access to government information through the internet.” *Administrative Law Review* 50(2):277–337.
- Johnson, Stephen M. 2013. “Beyond the Usual Suspects: ACUS, Rulemaking 2.0, and a Vision for Broader, More Informed, and More Transparent Rulemaking.” *Administrative Law Review* .

- Judge-Lord, Devin. 2016. Why Courts Defer to Administrative Agency Judgement. Midwest Political Science Association Annual Conference.
- Judge-Lord, Devin. 2017. Measuring Change and Influence in Budget Texts. American Political Science Association Annual Conference.
- Judge-Lord, Devin, Constance L. McDermott and Benjamin Cashore. 2020. "Do Private Regulations Ratchet Up? How to Distinguish Types of Regulatory Stringency and Patterns of Change." *Organization & Environment* 33(1):96–125.
- Judge-Lord, Devin, Justin Grimmer and Eleanor Powell. 2018. Unequal Representation. American Political Science Association Annual Conference.
- Kernell, Samuel. 2007. *Going public: new strategies of presidential leadership*. Fourth edi ed. CQ Press.
- Kerwin, Cornelius M. and Scott R. Furlong. 1992. "Time and Rulemaking: An Empirical Test of Theory." *Journal of Public Administration Research and Theory* 2(2):113–138.
- Kerwin, Cornelius M. and Scott R. Furlong. 2011. *Rulemaking: How Government Agencies Write Law and Make Policy*. 4th ed. CQ Press.
- Kerwin, Cornelius M. and Scott R. Furlong. 2018. *Rulemaking: How Government Agencies Write Law and Make Policy*. 5th ed. Washington, DC: CQ Press.
- Key, V.O. 1961. *Public Opinion and American Democracy*. New York: Alfred A. Knopf.
- Kollman, Ken. 1998. *Outside lobbying : public opinion and interest group strategies*. Princeton University Press.
- Konisky, David M. and Christopher Reenock. 2017. "Regulatory Enforcement, Riskscapes, and Environmental Justice." 46.
- Krauss, Clifford and Jad Mouwad. 2009. "Oil Industry Backs Protests of Emissions Bill." *New York Times* .
- Krewson, Christopher N. 2019. "Save this Honorable Court: Shaping Public Perceptions of the Supreme Court Off the Bench." *Political Research Quarterly* 72(3):686–699.
- Lauderdale, Benjamin E. and Tom S. Clark. 2012. "The Supreme Court's Many Median Justices." *American Political Science Review* .
- Lavertu, Ste'phane and David L Weimer. N.d. "Federal Advisory Committees, Policy Expertise, and the Approval of Drugs and Medical Devices at the FDA." . Forthcoming.

- Leech, Beth. 2010. Lobbying and Influence. In *The Oxford Handbook of American Political Parties and Interest Groups*, ed. Sandy L. Maisel, Jeffrey M. Berry and George C. Edwards. Oxford University Press pp. 696–719.
- Lester, James P., David W. Allen and Kelly M. Hill. 2001. *Designing an Effective Policy for Environmental Justice: Implications and Recommendations*.
- Lewis, David E. and Jennifer L. Selin. 2014. “Political Control and the Forms of Agency Independence.” *George Washington Law Review* 83.
- Liang, Jiaqi. 2016. “Defining Environmental Justice Communities for Regulatory Enforcement: Implications from a Block-Group-Level Analysis of New York State.” *Review of Policy Research* 33.
- Liang, Jiaqi. 2017. “Latinos and Environmental Justice: Examining the Link between Degenerative Policy, Political Representation, and Environmental Policy Implementation.” *Policy Studies Journal* 46.
- Libgober, Brian. 2018. “What biased rulemaking looks like.”
- Libgober, Brian and Daniel P. Carpenter. 2018. “Lobbying with Lawyers: Financial Market Evidence for Banks’ Influence on Rulemaking.”
- Lindblom, Charles Edward. 1980. *The policy-making process*. 2d ed. Englewood Cliffs, N.J.: Prentice-Hall.
- Lipsky, Michael. 1968. “Protest as a Political Resource.” *American Political Science Review* 62(4):1144–1158.
- Lipton, Eric and Coral Davenport. 2015. “Critics Hear E.P.A.’s Voice in Public Comments.” *The New York Times* .
- Long, N E. 1949. “Power and Administration.” *Public Administration Review* 9(4):257–264.
- Lowande, Kenneth. 2017. “Who Polices the Administrative State? Evidence from 20,000 Private Communications.”
- Lowande, Kenneth, Melinda Ritchie and Erinn Lauterbach. 2018. “Descriptive and Substantive Representation in Congress: Evidence from 80,000 Congressional Inquiries.” <https://sites.lsa.umich.edu/lowande/wp-content/uploads/sites/581/2018/06/dr-v2.pdf>. Date Accessed: August 20, 2018.
- Lowande, Kenneth and Rachel Augustine Potter. 2021. “Congressional Oversight Revisited: Politics and Procedure in Agency Rulemaking.” *The Journal of Politics* 83(1):401–408.

- Lowery, David. 2013. "Lobbying Influence: Meaning, Measurement, and Missing." *Interest Groups & Advocacy* 2(1):1–26.
- Lowi, Theodore. 1969. *The End of Liberalism*. New York: W.W. Norton.
- Lowi, Theodore J. 1964. "American Business, Public Policy, Case-Studies, and Political Theory." *World Politics* 16(4):677–715.
- Lowi, Theodore J. 1972. "Four Systems of Policy, Politics, and Choice." *Public Administration Review* 32(4):298–310.
- Lowi, T.J. and N.K. Nicholson. 2015. *Arenas of Power: Reflections on Politics and Policy*. Taylor & Francis.
- Lyon, Thomas P. and John W. Maxwell. 2004. *Journal of Economics & Management Strategy* 13:561–597.
- Mahoney, Christine. 2007a. "Lobbying Success in the United States and the European Union Author." 27(1):35–56.
- Mahoney, Christine. 2007b. The Role of Interest Groups in Fostering Citizen Engagement: The Determinants of Outside Lobbying. In *Politics Beyond the State: Actors and Policies in Complex Institutional Settings*, ed. Kris Deschouwer and M. Theo Jans. ASP.
- Malecha, Gary Lee and Daniel J. Reagan. 2012. *The public Congress: Congressional deliberation in a new media age*. Routledge.
- Mansbridge, Jane. 2003. "Rethinking Representation." *American Political Science Review* 97(4):515–528.
- Mansbridge, Jane J. 1992. A Deliberative Theory of Interest Representation. In *The Politics Of Interests: Interest Groups Transformed.*, ed. Mark P. Petracca. Routledge chapter 2, p. 448.
- Mayhew, David R. 2000. "Electoral Realignments." *Annual Review of Political Science* 3(1):449–474.
- McAdam, Doug. 1982. *Political Process and the Development of Black Insurgency, 1930-1970*. University of Chicago Press.
- McAdam, Doug. 2017. "Social Movement Theory and the Prospects for Climate Change Activism in the United States." *Annual Review of Political Science* 20:189–2008.
- McAdam, Doug, Sidney Tarrow and Charles Tilly. 2001. *Dynamics of Contention*. Cambridge Studies in Contentious Politics Cambridge University Press.

- McAdam, Doug and Yang Su. 2002. "The War at Home: Antiwar Protests and Congressional Voting, 1965 to 1973." *American Sociological Review* 67:696–721.
- McCubbins, Mathew D., Roger G. Noll and Barry R. Weingast. 1987. "Administrative Procedures as Instruments of Political Control." *Journal of Law, Economics, & Organization* 3(2):243–277.
- McCubbins, Mathew D and Thomas Schwartz. 1984. "Congressional Oversight Overlooked: Police Patrols versus Fire Alarms." *American Journal of Political Science* 28(1):165–179.
- McFarland, Andrew S. 2007. "Neopluralism." *Annual Review of Political Science* 10(1):45–66.
- McKay, Amy and Susan Webb Yackee. 2007. "Interest Group Competition on Federal Agency rules." *American Politics Research* 35:336.
- McNutt, John and Katherine Boland. 2007. "Astroturf, Technology and the Future of Community Mobilization: Implications for Nonprofit Theory." *The Journal of Sociology & Social Welfare* 34.
- Mendelson, Nina A. 2011. "Foreword: Rulemaking, Democracy, and Torrents of E-Mail." *George Washington Law Review* 79:101.
- Merrill, Jeremy B. 2018. "How Big Oil Dodges Facebook's New Ad Transparency Rules." *ProPublica*.
- Metzger, Gillian E. 2010. "Ordinary Administrative Law as Constitutional Common Law." *Columbia Law Review* 110:479.
- Meyer, David S. 2004. "Protest and Political Opportunities." *Annual Review of Sociology* 30(1):125–145.
- Michaels, Jon D. 2015. "An Enduring, Evolving Separation of Powers." *Columbia Law Review* 115:515.
- Michener, Jamila. 2019. "Power from the Margins: Grassroots Mobilization and Urban Expansions of Civil Legal Rights." *Urban Affairs Review* pp. 1078–0874.
- Mildenberger, Matto. 2020. *Carbon Captured: How Business and Labor Control Climate Politics*. Cambridge, MA: MIT Press.
- Mildenberger, Matto and Dustin Tingley. 2017. "Beliefs about Climate Beliefs: The Importance of Second-Order Opinions for Climate Politics." *British Journal of Political Science*.

- Miller, Susan M., Christopher Witko and Neal D. Woods. 2018. "How the Unorganized Mass Public (Sometimes) Gets Represented in Regulatory Politics." *Political Research Quarterly* 71(1):88–101.
- Mills, Russel W. and Jennifer L. Selin. 2016. "Behind "Enemy" Lines?: Congressional Detailles as an Indicator of Congressional Committee Capacity".
- Moe, Terry M. 1985. "Control and Feedback in Economic Regulation: The Case of the NLRB." *Source: The American Political Science Review* 79(4):1094–1116.
- Moore, Emily H. 2017. "Public Participation in Rulemaking.".
- Moore, Emily H. 2018. "Polarization, Excepted Appointments, and the Administrative Presidency." *Presidential Studies Quarterly* 48(1):72–92.
- Nelson, David and Susan Webb Yackee. 2012. "Lobbying Coalitions and Government Policy Change: An Analysis of Federal Agency." *The Journal of Politics* 74(2):339–353.
- Niskanen, William A. 1975. "Bureaucrats and politicians." *The Journal of Law & Economics* 18(3):617–643.
- Noveck, Beth Simone. 2004. "Public Participation in Electronic Rulemaking: Electronic Democracy or Notice-and-Spam?".
- Noveck, Beth Simone. 2005. "The Future of Citizen Participation in the Electronic State." *I/S: A Journal of Law and Policy* 1(1).
- Noveck, Beth Simone. 2009. *Wiki Government: How technology can make government better, democracy stronger, and citizens more powerful*. Brookings Institution Press.
- NRDC. 2021. "<https://www.nrdc.org/about>".
- Pellow, David N. 2016. "Toward a Critical Environmental Justice Studies: Black Lives Matter as an Environmental Justice Challenge." *DuBois Review* .
- Piven, Frances Fox and Richard Cloward. 1977. *Poor People's Movements*. Penguin Random House.
- Potter, Rachel Augustine. 2017a. "More than Spam? Lobbying the EPA Through Public Comment Campaigns.".
- Potter, Rachel Augustine. 2017b. "Slow-Rolling, Fast-Tracking, and the Pace of Bureaucratic Decisions in Rulemaking." *Journal of Politics* 79(3):841–855.

- Potter, Rachel Augustine, Andrew Rudalevige, Sharece Thrower and Adam L. Warber. 2019. "Continuity Trumps Change: The First Year of Trump's Administrative Presidency." *PS: Political Science & Politics* pp. 1–7.
- Potter, Rachel Augustine and Charles R. Shipan. 2019. "Agency rulemaking in a separation of powers system." *Journal of Public Policy* 39(1):89–113.
- Powell, Eleanor Neff, Devin Judge-Lord and Justin Grimmer. 2020. Campaign Contributions and Bureaucratic Oversight: A Case Study of the Federal Energy Regulatory Commission.
- Rashin, Steven. 2017. Private Influence on the Regulatory Process: Evidence from Comments on SEC Rules.
- Raso, Connor and Bruce R. Kraus. 2020. "Upvoting the administrative state."
- Rauch, Daniel E. 2016. "Two-Track E-Commenting." *Yale Journal on Regulation* 33(1).
- Reich, Charles A. 1966. The Law of the Planned Society. Technical report.
- Revesz, Richard L. 2018. "New York University Law Review." *New York University Law Review* 93:1489.
- Rhodes, R A W. 1996. "The new governance: Governing without government." *Political Studies* 44(4):652–667.
- Richardson, Mark D., Joshua D. Clinton and David E. Lewis. 2017. "Elite Perceptions of Agency Ideology and Workforce Skill." *The Journal of Politics* pp. 000–000.
- Rinfret, Sara and Jeffrey Cook. 2019. "Trial by fire? Rulewriters, training, the BLM, and EPA." *Environmental Practice* 21(3):113–120.
- Rinfret, Sara, Robert Duffy, Jeffrey Cook and Shane St. Onge. 2021. "Bots, fake comments, and E-rulemaking: the impact on federal regulations." *International Journal of Public Administration* 0(0):1–9.
- Ritchie, Melinda N. 2017. "Back-Channel Representation: A Study of the Strategic Communication of Senators with the US Department of Labor." *Journal of Politics* .
- Rochon, Thomas R and Daniel A Mazmanian. 1993. "Social Movements and the Policy Process." *The Annals of the American Academy of Political and Social Science* 528(July):75–87.
- Rosenbloom, David H. 2003. *Administrative law for public managers*. Westview Press.

- Rossi, Jim. 1997. "Participation Run Amok: The Costs of Mass Participation for Deliberative Agency Decisionmaking." *Northwestern Law Review* 92(1).
- Sabatier, Paul A. 1988. An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein. Technical report.
- Sant'Ambrogio, Michael and Glen Staszewski. 2018. Public Engagement in Agency Rulemaking. Technical report Administrative Conference of the United States.
- Saveourenvironment.org. 2021. "<https://saveourenvironment.org/who-we-are/>".
- Schattschneider, E E. 1935. *Politics, Pressures and the Tariff*. New York: Prentice-Hall.
- Schattschneider, Elmer. 1942. *American government in action series*.
- Schattschneider, Elmer E. 1975. *The Semisovereign People: A Realist's Wiew of Democracy in America*. Revised ed. Dryden Press.
- Schlosberg, David, Stephen Zavestoski and Stuart W. Shulman. 2007. "Democracy and e-rulemaking: Web-based technologies, participation, and the potential for deliberation." *Journal of Information Technology and Politics* 4:37.
- Schlozman, Daniel. 2015. *When movements anchor parties: electoral alignments in American history*. Princeton University Press.
- Schlozman, Kay Lehman, Sidney Verba and Henry E. Brady. 2012. *The Unheavenly Chorus: Unequal Political Voice and the Broken Promise of American Democracy*. Princeton University Press.
- Segal, Jeffrey A. and Harold J. Spaeth. 2002. *The Supreme Court and the Attitudinal Model Revisited*. Cambridge University Press.
- Seifter, Miriam. 2016. "Second-Order Participation in Administrative Law." *UCLA Law Review* 63(1300).
- Selin, Jennifer L. 2015. "What Makes an Agency Independent?" *American Journal of Political Science* 59(4):971–987.
- Shane, Peter M. 2009. Turning GOLD into EPG: Lessons from Low-Tech Democratic Experimentalism for Electronic Rulemaking and Other Ventures in Cyberdemocracy. In *Online Deliberation: Design, Research, and Practice*, ed. Todd Davies and Seeta Peña Gangadharan. CSLI Publications.
- Shapiro, Stuart. 2005. "Unequal Partners: Cost-benefit Analysis and Executive Review of Regulations." *Environmental Law Report* 35:10433–44.

- Shapiro, Stuart. 2008. "Does the Amount of Participation Matter? Public Comments, Agency Responses and the Time to Finalize a Regulation." *Policy Sciences* 41(1):33–49.
- Sierra Club, U.S. 2021. "About Our Program."
- Skocpol, Theda. 2003. *Diminished Democracy: From membership to management in American civic life*. University of Oklahoma Press.
- Skocpol, Theda. 2013. "Naming the Problem: What It Will Take to Counter Extremism and Engage Americans in the Fight against Global Warming."
- Skocpol, Theda and Vanessa Williamson. 2016. *The Tea Party and the remaking of Republican conservatism*. Oxford University Press.
- Snyder, Rochelle, Devin Judge-Lord, Justin Grimmer and Eleanor Powell. 2020. Who Gets Constituent Service? American Political Science Association Annual Conference.
- Soss, Joe, Jacob S Hacker and Suzanne Mettler. 2007. *Remaking America: Democracy and Public Policy in an Age of Inequality*. New York: Russell Sage Foundation.
- Stone, Deborah. 2002. *The Policy Paradox: the Art of Political Decision Making*. New York, NY: Norton and Company.
- Sunstein, Cass R. 2001. *Republic.com*. Princeton University Press.
- Svara, James H. 1998. "The Politics-Administration Dichotomy Model as Aberration." *Public Administration Review* 58(1):51–58.
- Tarrow, Sidney. 1994. *Power in Movement*. Cambridge University Press.
- Taylor, Dorceta E. 2012. "Race, Class, Gender, and American Environmentalism."
- Taylor, Dorceta E. 2014. *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility*. NYU Press.
- Truman, David B. 1951. *The Governmental Process. Political Interests and Public Opinion*. New York, NY: Alfred A. Knopf.
- Verba, Sidney. and Norman H. Nie. 1987. *Participation in America: Political Democracy and Social Equality*. University of Chicago Press.
- Wagner, Wendy E. 2010. "Administrative Law, Filter Failure, and Information Capture." 59:1321.

- Wagner, Wendy E., Katherine Y. Barnes and Lisa Peters. 2011. "Rulemaking in the Shade: An Empirical Study of EPA's Air Toxic Regulations." *Administrative Law Review* 63(1):99–158.
- Wagner, Wendy E., William West, Thomas Mcgarity and Lisa Peters. 2017. "Dynamic Rulemaking." *N.Y.U. Law Review* 21(183):92–2017.
- Walker, Jack L. 1991. *Mobilizing interest groups in America: patrons, professions, and social movements*. University of Michigan Press.
- Walters, Daniel E. 2019a. "Capturing Regulatory Agendas?: An Empirical Study Of Industry Use Of Rulemaking Petitions." *Harvard Environmental Law Review* 49.
- Walters, Daniel E. 2019b. "Capturing the Regulatory Agenda: An Empirical Study of Agency Responsiveness to Rulemaking Petitions." *Harvard Environmental Law Review* 42(1):175–223.
- Warren, Kenneth F. 2010. *Administrative Law in the Political System*. 5th ed.
- WEACT. 2017. "WE ACT for Environmental Justice: Empowering Communities to Power Change." <https://www.weact.org/>.
- Weingast, Barry R. 1984. "The congressional-bureaucratic system: a principal agent perspective (with applications to the SEC)." *Public Choice* pp. 147–191.
- Weir, Margaret. 1989. Ideas and Politics: The Acceptance of Keynesianism in Britain and the United States. In *The Political Power of Economic Ideas*, ed. Peter A Hall. Princeton, New Jersey: Princeton University Press pp. 53–86.
- Weldon, S. Laurel. 2002. *Protest, Policy, and the Problem of Violence against Women: A Cross-National Comparison*. University of Pittsburgh Press.
- Weldon, S. Laurel. 2011. *How Social Movements Represent Disadvantaged Groups*. University of Michigan Press.
- West, William. 2005. "Administrative Rulemaking: An Old and Emerging Literature." *Public Administration Review* 65(6):655–668.
- West, William F. 2004. "Formal Procedures, Informal Processes, Accountability, and Responsiveness in Bureaucratic Policy Making: An Institutional Policy Analysis." *Public Administration Review* 64(1):66–80.
- West, William F. 2009. "Inside the Black Box." *Administration & Society* 41(5):576–599.

- West, William F. and Connor Raso. 2013. "Who Shapes the Rulemaking Agenda? Implications for Bureaucratic Responsiveness and Bureaucratic Control." *Journal of Public Administration Research and Theory* 23(3):495–519.
- White, Adam J. 2018. "Comments on ACUS Proposed Recommendations on Public Engagement in Rulemaking."
- Wildavsky, Aaron B. 1964. *Politics of the budgetary process*. Boston, MA: Little Brown.
- Wilson, James Q. 1967. "The Bureaucracy Problem." *The Public Interest* 6(3):3.
- Wilson, James Q. 1989. *Bureaucracy: what government agencies do and why they do it*. Basic Books.
- Woods, Neal. 2013. "Regulatory Democracy Reconsidered: The Policy Impact of Public Participation Requirements."
- Yackee, Jason Webb and Susan Webb Yackee. 2006. "A Bias Towards Business? Assessing Interest Group Influence on the U.S. Bureaucracy." *Journal of Politics* 68(1):128–139.
- Yackee, Jason Webb and Susan Webb Yackee. 2009a. "Divided government and US federal rulemaking." *Regulation & Governance* 3(2):128–144.
- Yackee, Jason Webb and Susan Webb Yackee. 2009b. Is the Bush Bureaucracy Any Different? A Macro-Empirical Examination of Notice and Comment Rulemaking under "43". In *President George W. Bush's Influence over Bureaucracy and Policy*., ed. C Provost and P Teske. Palgrave Macmillan pp. 41–59.
- Yackee, Susan Webb. 2006. "Sweet-talking the fourth branch: The influence of interest group comments on federal agency rulemaking." *Journal of Public Administration Research and Theory* 16(1):103–124.
- Yackee, Susan Webb. 2009. "Private Conflict and Policy Passage: Interest-Group Conflict and State Medical Malpractice Reform." *Policy Studies Journal* 37(2):213–231.
- Yackee, Susan Webb. 2012. "The Politics of Ex Parte Lobbying: Pre-Proposal Agenda Building and Blocking during Agency Rulemaking." *Journal of Public Administration Research and Theory* 22(2):373–393.
- Yackee, Susan Webb. 2013. Reconsidering Agency Capture During Regulatory Policymaking. In *Preventing Regulatory Capture: Special Interest Influence and How to Limit It*, ed. Daniel Carpenter and David A. Moss. New York: Cambridge University Press chapter 11.

- Yackee, Susan Webb. 2015a. "Invisible (and Visible) Lobbying: The Case of State Regulatory Policymaking." *State Politics & Policy Quarterly* 15(3):322–344.
- Yackee, Susan Webb. 2015b. "Participant Voice in the Bureaucratic Policymaking Process." *Journal of Public Administration Research and Theory* 25(2):427–449.
- Yackee, Susan Webb. 2019. "The Politics of Rulemaking in the United States." *Annual Review of Political Science* 22(1).
- Yackee, Susan Webb. 2021. "Regulatory Capture's Self-Serving Application." *Public Administration Review* n/a(n/a).
- Zavestoski, Stephen, Stuart Shulman and David Schlosberg. 2006. "Democracy and the Environment on the Internet." *Science, Technology, & Human Values* 31(4):383–408.