Article

Stakeholder Participation and Strategy in Rulemaking: A Comparative Analysis

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Abstract

Integrating a diversity of stakeholder voices in policymaking processes can lead to more legitimate and widely supported laws and rules. While most attention to stakeholder participation in public decision processes has focused on legislative policymaking or the role of industry stakeholders in regulatory processes, strategic choices about participation by non-industry stakeholders in rulemaking remains largely overlooked, particularly at the state level. Previous research shows that agency rulemaking processes often provide greater procedural access to industry actors, who may significantly influence final rule content by bringing greater technical knowledge to bear on rulemaking processes. Less is understood about the strategies used by non-industry stakeholders, such as environmental advocacy groups, to influence regulatory decisions. This study, which compares environmental rulemaking processes across three issues in five states, finds that industry actors and environmental advocacy groups both use a variety of participation strategies classically thought to be "insider" and "outsider" strategies, and that these choices are motivated by reasons other than the perceived effectiveness of the strategy within the formal rulemaking process.

Keywords

political participation, political behavior, lobbying, parties and interest groups, environmental policy, public policy, public administration, interest groups

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Introduction

The imperative to include diverse stakeholder voices in debating, promulgating, and implementing legislation and regulation fills the public policy literature, in particular because by doing so, decision-makers can arrive at more legitimate and widely supported laws and rules (Gregory 2000; Gregory and Keeney 1994; Maguire and Lind 2003; Renn et al. 1993). As more inclusive policymaking processes become the norm, however, stakeholders of all types must weigh trade-offs in determining the most appropriate strategies with which to participate in order to influence policy outcomes. For example, while some stakeholders may attempt to influence outcomes by providing technical or scientific information about the issue at hand, others may work to mobilize support from the public for a particular policy outcome that aligns with the group's broader political goals. As a result, understanding which strategies stakeholders choose to employ in order to influence policy change can help us learn more about why certain policy outcomes are generated.

To date, most scholarly attention to stakeholder participation in policy processes has focused on either legislative policymaking venues or federal-level regulatory processes, leaving the role of stakeholder strategy in state-level regulatory processes underexplored. Moreover, the role of industry stakeholders' participation has received greater attention than that of other stakeholders in federal and state regulatory processes. Industry groups often have a direct economic interest in participating in regulatory policymaking, as they are typically the community that must abide by the regulations being developed. Furthermore, because rulemaking is often technical in nature, focused on nuances of compliance, reporting, technical allowances, and similar issues, industry groups are expected to have greater influence due to the technical knowledge they bring to bear (West and Raso 2013; S. W. Yackee 2012). The influence of industry stakeholders may be further increased as a result of agency discretion over rulemaking processes, particularly at the state level, which has been found to provide greater access for industry stakeholders, especially those who have previously been involved in agency rulemaking processes (Mendelson 2007). However, participation and influence of non-industry stakeholders, such as advocacy groups, in rulemaking is less clear. These advocacy stakeholders, particularly at the state level, must often make strategic calculations regarding their participation due to having more limited resources than industry groups and organizational goals that are often broader and more political than the technical aspects of rulemaking.

The stakeholder strategy literature suggests that when attempting to influence regulatory decision processes, industry actors may be more likely to employ "insider" strategies that leverage their expertise and prior relationships with regulatory agencies, while advocacy stakeholders may be more likely to use "outsider" strategies that include mobilizing their constituents, media outreach, and protest (Abney 1988; Hanegraaff, Beyers, and De Bruycker 2016; Maloney, Jordan, and McLaughlin 1994). In modern regulatory policymaking processes, however, both categories of actors include highly sophisticated organizations and the patterns in stakeholder strategy that we observe may be more nuanced than the traditional insider/outsider dichotomy

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predicts. As state-level rulemaking becomes increasingly central to policymaking in the United States, analyzing the strategies used by various stakeholders to influence regulatory processes can help explain variation in rulemaking outcomes across states (Crow, Albright, and Koebele 2015a; 2015b).

To understand the strategies employed by various stakeholders in the state-level regulatory context, this study compares stakeholder engagement in environmental rulemaking across three issues (renewable portfolio standards, concentrated animal feeding operation regulations, and hydraulic fracturing disclosure rules) in five states (California, Colorado, Michigan, North Carolina, and Pennsylvania). Using data from (1) rulemaking documents, (2) stakeholder comment during rulemaking, and (3) in-depth interviews with agency staff and stakeholders, we find that there are common patterns of engagement by stakeholders from both industry groups and advocacy groups. In addition to supporting previous research on industry actors' role as influential technical experts, these findings advance our knowledge of engagement by non-industry actors, specifically environmental advocacy groups, in state-level rulemaking. However, there are also important differences in strategy within the advocacy sector, which this study teases apart, as well as nuances in actors' motivations for selecting participation strategies that go beyond perceived effectiveness.

Stakeholder Status and Strategies

In this study, we define stakeholders as "local, state, and federal government officials, interest groups, non-governmental organizations, community groups, researchers/scientists, members of the media, and target groups" (Weible 2007, 98) who work to affect policy decisions. Of particular interest to our study are organized interests such as businesses, public interest groups, and non-governmental organizations. As described above, in regulatory decision processes, business interests—the regulated industry and the organizations that advocate on their behalf—are expected to have greater access and influence than citizens or public interest groups, in part due to their repeated interactions with policy makers within their issue area (Crow, Albright, and Koebele 2016; J. W. Yackee and Yackee 2006). However, public interest groups and non-governmental organizations that are not associated with industry—which we broadly refer to as advocacy groups in this study—form a broad category of stakeholder groups with varying policy goals even in a single issue domain such as environmental policy and regulation, have less clear influence on rulemaking (Dunlap and Mertig 1992; Gottlieb 1993; Pralle 2006; Steelman 2001). Most advocacy groups working within environmental policy venues, the issue area of focus in this study, can be described as holding views consistent with environmental and public health protection, regulation of business practices for the benefit of the public, and government action aimed at enforcing or enacting environmental laws. Importantly, some advocacy groups are far more professionalized than others, which lead to heterogeneity in technical capacity, resources, and access to decision-makers within the advocacy sector (Dunlap and Mertig 1992; Kraft 2015).

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These different stakeholder groups can be further classified by their status as either "insider" or "outsider" groups (Maloney, Jordan, and McLaughlin 1994). An insider group is a group with privileged status in a decision-making venue, a status that is afforded to certain actors due to several possible factors which relate to resources they bring to bear on the decision context (e.g., information, cooperation, etc.) and which provide them with greater access to decision-makers through consultative relationships (Maloney, Jordan, and McLaughlin 1994). Business interests are typically viewed as insiders to policy processes due to their technical knowledge about policy issues related to their business practices, access to decision-makers, and resources. Advocacy groups, however, are often viewed as outsider groups with a less privileged position in policymaking (Binderkrantz 2005). Some scholars argue that advocacy groups are less likely to be professionalized organizations with access or technical capacity to engage in decision venues in a manner competitive with insiders (Gais and Walker 1991). However, this may depend on the type of decision and decision-maker a particular advocacy group is attempting to influence and their role within the issue domain (e.g., in rulemaking processes within a Public Utilities Commission, environmental advocacy groups may be viewed as outsiders, whereas in processes under a Department of the Environment, they may be viewed as insiders).

Insider groups are thought to use different strategies to influence policy decisions than outsider groups (Dür and Mateo 2013). For example, insiders are expected to draw upon information and expertise which they leverage to gain access to relationships and consultations with decision-makers (Binderkrantz, Christiansen, and Pedersen 2015; Maloney, Jordan, and McLaughlin 1994). Business groups, that are often most influential in low-salience issues and often do not want external attention, may be more likely to utilize these insider strategies to work with decision-makers and exchange information (Culpepper 2010). Groups typically considered to be outsiders that rely on publicity for membership and resources (such as public interest groups) may be less likely to use insider strategies because these strategies take away from their external work that gains publicity (Barakso 2010; Binderkrantz, Christiansen, and Pedersen 2015; Dür and Mateo 2013) or because they do not have the resources, expertise, or relationships with decision-makers noted above. As a result, outsider groups may use strategies such as organizing protests, citizen mobilization through letter-writing campaigns, or media outreach (Binderkrantz 2005; Nownes and Freeman 1998).

While ample literature on lobbying suggests that there are common patterns in strategy that we may see depending on whether the stakeholder is an insider or outsider (Binderkrantz 2005; 2008; Binderkrantz, Christiansen, and Pedersen 2015; Dür and Mateo 2013), other literature suggests that insider and outsider status is distinct from the strategies that these groups may employ to influence policy processes (Maloney, Jordan, and McLaughlin 1994). Instead, the strategies used by policy stakeholders may be more closely linked to their professionalism, which some scholars have measured by regular engagement with and experience in policy advocacy (Gais and Walker 1991). Using that measure, as well as measures of personnel capacity, organizational budgets, or other resources, some environmental advocacy groups may be highly professionalized compared with their peers or even compared with industry,

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indicating that they be more likely to use strategies typically employed by insider groups, even if they are largely viewed as outsiders by the agency under which the rulemaking occurs (Andrews and Edwards 2004; Fiorino 2001; Kraft 2015; Pralle 2006). Less professionalized environmental advocacy groups, however, may be relegated to employing strategies classically associated with outsiders groups, regardless of the type of rulemaking they are participating in.

Stakeholder Access and Participation in State-Level Rulemaking

When stakeholders choose to participate in a rulemaking process, their access and participation strategy may be influenced to some degree by the guidelines outlined in a state's Administrative Procedures Act (Grady and Simon 2002). A state-level APA determines the required process that state agencies must use to promulgate and decide rules. APAs may vary by state, but they typically include the following stages: (1) issuance of a draft rule by a regulatory agency with or followed by a notice of rulemaking, (2) a specific length of time during which stakeholders and the public can submit written comments in response to the agency's draft rules, (3) and a decision by regulators to adopt final rules (after considering the comments provided by industry, public, and advocates). The length and requirements for formal comment periods differ among states, as do the composition of the governing agencies or decision bodies.

Despite this fairly standardized process, there are a number of different ways through which stakeholders can participate in state-level rulemaking. Stakeholders can attempt to influence initial legislative policy decisions that then govern rulemaking by agencies, akin to the traditional lobbying approach (Abney 1988; Austen-Smith 1993; Hall and Wayman 1990; Hojnacki and Kimball 1998; Jourdain, Hug, and Varone 2017). They may also choose to work in a more technocratic and technical sphere, working primarily with regulators and within the rulemaking process outlined above (Crow, Albright, and Koebele 2015a; West and Raso 2013; S. W. Yackee 2006; 2012). Stakeholders may also opt to pursue a strategy considered typical of outsiders in the lobbying literature wherein they attempt to place pressure on legislators or regulators through public mobilization and media campaigns (Jenkins 1983; Jordan and Maloney 1997; Lipsky 1968), which may garner public attention to their broader cause and policy goals (Andrews and Caren 2010).

Furthermore, rulemaking is increasingly conducted using various processes in addition to the traditional model described above (Gluck, O'Connell, and Po 2015). Agencies at both the state and federal levels have ample discretion during the rulemaking process (West and Raso 2013), and as a result, they may employ formal or informal processes that can alter the nature of the typical process as described above (Teske 2004). These procedures can influence the final regulatory outcome by limiting or enhancing the opportunities for participation and influence by certain stakeholders (Shapiro and Borie-Holtz 2013; Teske 2004). For example, meetings and workshops may take place during the period prior to the issuance of draft rules by an agency (Crow, Albright, and Koebele 2015b; West 2004; 2009; S. W. Yackee 2012). Agency

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staff have discretion over what parties are invited to these events and which agenda items are considered (Mendelson 2007; West 2004; 2009), which may limit the inclusiveness of agency decision processes, marginalize certain actors, or empower others (Mendelson 2007; West 2004; 2009). Agencies may also engage in "shuttle diplomacy" in which they gather information from multiple parties informally prior to the development of draft rules in order to reduce conflict and avoid the high costs of formal negotiations (Rinfret and Cook 2014). The types of processes used during shuttle diplomacy may be influenced by the political environment or leadership within agencies or state governments (Rinfret, Cook, and Pautz 2014).

As stakeholders participate in policymaking processes, they may develop relationships and begin to form preferences for working with certain agencies above others, which may inform future decisions about participation strategies (Pralle 2003). Furthermore, because the policy decision context is bounded by constitutional rules, resources, and existing laws (Baumgartner and Jones 2009; Crawford and Ostrom 1995; ; Ostrom 1999; Sabatier 1988; Sabatier and Jenkins-Smith 1993; 1999; Sabatier and Weible 2007), certain stakeholders may be required to participate in formal rulemaking proceedings, regardless of whether they are typically viewed as insiders or outsiders to that specific decision venue. These bounds may be narrower in state-level processes wherein there are typically fewer opportunities for stakeholders to influence decisions and fewer resources available to state-based advocacy organizations compared with their national counterparts. As such, these aspects of state-level rulemaking may also play a role in influencing or incentivizing stakeholder groups to use certain participation strategies (Abney 1988; Culpepper 2010; Dür and Mateo 2013; Gais and Walker 1991; Hanegraaff, Beyers, and De Bruycker 2016; Jourdain, Hug, and Varone 2017; Maloney, Jordan, and McLaughlin 1994).

Theoretical Expectations and Hypotheses

Based on the literature outlined above, we expect that both industry and advocacy group stakeholders will make deliberate decisions about the strategies they use to influence policymaking. Because industry actors are likely considered insiders in many regulatory processes as a consequence of their repeated interactions with regulators, technical expertise, and economic self-interest to participate in rulemaking, their participation in the formal rulemaking process is universally expected. As insider actors, they are predicted to generally employ insider strategies during their participation, which in this analysis includes the provision of technical information to influence rulemaking decisions. Because advocacy group stakeholders may be more heterogeneous, with some showing characteristics of insiders and others being clear outsiders to rulemaking, their participation strategies are likely to vary. However, due to the greater degree of heterogeneity within the advocacy actor group than the industry group, it is more likely that we will observe the use of outsider strategies by this group of actors. We predict, therefore, that advocacy actors are more likely to employ outsider strategies such as public mobilization, letter-writing campaigns, and broader moral appeals to regulators (Barakso 2010; Eckerd 2017).

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Despite variation in insider versus outsider status, we expect that both of these stakeholder groups are likely to perceive the need to participate in the rulemaking process as often as their resources allow. However, we also expect that actors may hold different perceptions of the efficacy of participating within the more formal rulemaking process, due in part to the strategies that they choose to utilize when they do participate and their degree of comfort and expertise participating in similar processes. As such, we articulate the following hypotheses regarding the strategies that different stakeholder groups will use when attempting to influence regulations and their expectations about the efficacy of these strategies within the formal rulemaking process:

Hypothesis 1 (H1): Industry actors will use insider strategies when participating in environmental rulemaking processes, including drawing on expertise and data to focus on technical aspects of regulation, more often than advocacy group actors.
Hypothesis 2 (H2): Advocacy actors will use outsider strategies when participating in environmental rulemaking processes, including using public mobilization and political appeals, more often than industry actors.
Hypothesis 3 (H3): Actors using insider strategies will perceive their participation in the formal rulemaking process as effective for accomplishing their policy goals to a greater extent than actors using outsider strategies.

Next, the research methods used to investigate these questions are described, along with the case studies analyzed.

Multistate Analysis of State-Level Environmental Rulemaking: Research Methods

This study uses a comparative multi-case research design wherein data from three environmental regulatory topics (renewable energy portfolio standards, concentrated animal feeding operation effluent standards, and hydraulic fracturing disclosure regulations) in five states (California, Colorado, Michigan, North Carolina, and Pennsylvania) ($n = 14$)[1] are used to study stakeholder participation and strategies in state-level rulemaking. Environmental rulemaking cases were chosen for inclusion here in order to maintain a degree of consistency regarding what types of actors fall into each category (industry vs. advocacy group), as well as the level of resources these actors bring to bear to influence rulemaking outcomes. Within the advocacy group category of actors, we expect that all actors will have policy goals related to protecting the environment (sometimes also coupled with public health). Within the industry sector, while there may not be clear ideological commonalities, it is likely that the actors will be interested in regulatory burdens, cost, and compliance issues of regulatory decisions. Due to the nature of environmental policy and the stakeholders that participate in policy advocacy (business, interest group, etc.), environmental policy is a useful issue domain within which to situate this work. Over the past several decades, states have taken an increasingly prominent role in environmental policymaking. More importantly, the environmental advocacy group sector is heterogeneous, and

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many groups have the potential to act as insiders due to the level of professionalism present, which suggests that the assumptions often made about participation within environmental policy domains may not hold as they do in other policy areas.

Using multiple sources of data and multiple perspectives as suggested by Yin (2003), we develop an in-depth understanding of each case studied here, as well as common patterns across topics and states. Certain U.S. states, such as California, are known to employ more transparent stakeholder processes and are expected to see more proenvironmental outcomes. To account for this expected variation among states, we selected five states for inclusion in this study that vary based on (1) expected government transparency, (2) geographic region, and (3) expected industry influence. Variation in levels of state government transparency was established using the State Integrity Investigation's government corruption index, drawing from each of five quintiles of ranked U.S. states.[2] Around 10 states exist within each quintile, which gave researchers the ability to vary certain aspects of a state's political and economic landscape. For example, states were included from the following U.S. regions: West, Rocky Mountains, Midwest, mid-Atlantic, and Southeast. No states were included from the Northeastern United States due to absence of hydraulic fracturing within the region due to geological characteristics. Variation in the overall economic importance of the regulated industry in each state was a relative measure, with hog farming much more important to North Carolina's economy, for example, than Colorado's or Michigan's economies. Based upon these factors, the U.S. states of California, Colorado, Michigan, North Carolina, and Pennsylvania were selected for inclusion in this study. When multiple rounds of rulemaking on an issue have taken place, the first occurrence of rulemaking was studied for this analysis (with the exception of the concentrated animal feeding operations, or CAFOs, topic because many states were regulating CAFOs prior to federal requirements for rulemaking being issued in 2003, but some of these processes had taken place decades prior and are therefore difficult to study due to lack of available data).

Regulatory Case Study Topics

This study builds on previous work that used a smaller sample of states and cases to develop an understanding of agency processes (Crow, Albright, and Koebele 2015b) and stakeholders' use of publicly available information (Crow, Albright, and Koebele 2016) in state-level rulemaking, as well as of the predraft processes evident in these 14 cases (Crow, Albright, and Koebele 2015a). See Table 1 for the relevant timelines and agencies responsible for promulgating rules in each of these cases. Note that these agencies have varying degrees of expected proenvironmental or proindustry bias. Agencies charged with rulemaking in the energy sector (renewable energy or hydraulic fracturing), for example, are not expected to show a consistent proenvironmental bias as they work closely with extractive industries and utility companies and frequently include representation from industry interest on the governing boards or commissions. Agencies charged with rulemaking governing water quality regulations (such as in the CAFO cases), however, are more likely to be departments of environmental protection or quality, indicating

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Table 1. Regulatory Agencies in Rulemaking Proceedings.

State	Case	Timeline of rulemaking	Agency	Interview subjects ($n = 45$)
CA	CAFO	3/2006-5/2007	Regional Water Quality Control Board, Central Valley	Agency (1), Industry (2)
	HFD[a]	9/2013-1/2014	Div. of Oil, Gas and Geothermal Resources	Advocacy (1), Agency (1), Industry (1)
	RPS	4/2004-7/2004	Public Utilities Commission	Advocacy (1), Agency (1), Industry (2)
CO	CAFO	9/2003-4/2004	Water Quality Control Commission	Agency (1), Industry (1)
	HFD	10/2011-12/2011	Colo. Oil and Gas Conservation Commission	Advocacy (1), Agency (1), Industry (1)
	RPS	3/2005-5/2006	Public Utilities Commission	Advocacy (1), Agency (2), Industry (1)
MI	CAFO	5/2004-4/2005	Department of Environmental Quality	Advocacy (1), Agency (1), Industry (1)
	HFD	10/2013/7/2014	Department of Environmental Quality	Advocacy (1), Agency (1)
	RPS	10/2008-6/2010	Public Service Commission	Advocacy (1), Agency (1), Industry (1)
NC	CAFO	11/2001-12/2002	Dept. of Environment and Natural Resources	Advocacy (2), Agency (2), Industry (2)
	RPS	8/2007-2/2008	Utilities Commission	Advocacy (1), Agency (1), Industry (1)
PA	CAFO	4/2004-10/2005	Department of Environmental Protection	Advocacy (1), Agency (1), Industry (2)
	HFD	5/2010-10/2010	Department of Environmental Protection	Advocacy (1), Agency (1), Industry (1)
	RPS	3/2005-9/2005	Public Utility Commission	Advocacy (1), Agency (1), Industry (1)

Note. CAFO = concentrated animal feeding operations standards; HFD = hydraulic fracturing disclosure rules; RPS = renewable energy portfolio standards.
a.Emergency rulemaking, which allows states to supersede normal required lengths for rulemaking, was conducted in the hydraulic fracturing case in California. Emergency rulemaking requires finding of an emergency and a brief public comment period and is often conducted in order to promulgate rules for an interim period during which a longer-term rulemaking process may be conducted.

that they may have a legislated mission to be protective of environmental quality and human health. Due to this variation, we do not expect that the agencies studied will uniformly approach the regulated industry with proenvironmental or antiindustry bias, which introduces greater analytical variation to this comparative case study.

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Concentrated animal feeding operations standards (CAFO). Concentrated Animal Feeding Operations contribute to water pollution in many U.S. states. Runoff from these "factory farm" operations can lead to excess nutrients in water bodies, which can harm environmental and human health (Steeves 2002). In 2003 (revised 2008), the United States Environmental Protection Agency (EPA) issued new guidelines regarding how states should regulate such operations. These new guidelines required states to promulgate new rules, specifically related to pollutant discharge into water bodies (U.S. Environmental Protection Agency 2008), specific to the needs of the state, industry, and local water resources. All states in this study were regulating CAFOs prior to 2003, although it was a higher profile issue in states such as North Carolina than in other states where the CAFO industry is not as economically or politically important. In California, rulemaking took place at the regional level, so this study analyzed the rulemaking process in the Central Valley Region 5, where over 1,500 dairies are located[3] (larger than most states' entire dairy industries). The industry in this case includes both small and large livestock operations, while the advocacy community includes environmental and public health advocates.

Hydraulic fracturing disclosure rules (HFD). Hydraulic fracturing extracts natural gas by injecting a mixture of sand, water, and chemical into underground wellbores (Davis 2012). In some states, citizens and environmental groups have protested the potential environmental and public health risks associated with hydraulic fracturing operations (Davis 2012). As a result of citizen and environmental/public health advocacy group concerns, state governments have conducted rulemaking processes governing hydraulic fracturing activities. Industry actors in this case analysis are oil and gas companies and their associated partners (drillers, well-pad contractors, etc.). Along with rules on well setback distances from homes and schools, methane emissions from wells, and other topics, many states have sought to address the public disclosure of the chemicals injected into wells during hydraulic fracturing operations. California, Colorado, Michigan, and Pennsylvania have promulgated regulations in response to hydraulic fracturing controversies (ProPublica 2012), while North Carolina's legislature approved hydraulic fracturing and began its regulatory process in 2014 (National Conference of State Legislatures 2012). North Carolina's process was ongoing during data collection for this study and is therefore not included in this analysis.

Renewable energy portfolio standards (RPS). The majority of U.S. states have adopted renewable energy portfolio standard (RES or RPS) requirements that specify what proportion of statewide energy must be produced from renewable sources by a specific future date (U.S. Department of Energy 2018). The states included in this study all have adopted an RPS, but they vary by stringency and timeframe required for compliance.[4] Four states included in our analysis initiated their RPS through legislatures, while Colorado adopted its RPS through citizen ballot initiative (subsequent RPS increases were passed in the legislature). Industry actors in RPS cases included investor-owned utilities, smaller co-ops or rural electric associations, and the renewable energy industry. This case is useful due to the diversity of industry stakeholders which

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likely vary on their ideological positions on environmental regulation, but which will have interests related to regulatory burdens and costs in common. The advocacy interests include environmental organizations.

Data Collection and Analysis

Multiple sources of data are used in this analysis. Data collection and analysis methods are described below.

Rulemaking documents. All agency rulemaking documents issued during the rulemaking processes were collected directly from regulatory agencies, including draft and final regulations, all public comments, formal statements, meeting agendas, and any supporting documentation agencies made publicly available. These documents were analyzed for timelines, individuals, and organizations that attended meetings and workshops, and events that took place during rulemaking (workshops, meetings, hearings) to create case summaries.

Interviews. In-depth semi-structured interviews ($n = 45$) were conducted according to procedures outlined by Rubin and Rubin (2005) with staff from regulatory agencies and representatives from major interests involved in rulemaking (industry and advocacy groups, in particular) to investigate levels and types of participation by various actors. The interviews were conducted with individuals directly involved in the rulemaking cases when possible. Information provided in interviews was compared with the regulatory record from agency documents when possible to confirm statements made with regard to rulemaking timelines, stakeholder involvement, and rulemaking procedures. By cross-checking interview data, we attempt to cope with limitations inherent in interviews conducted 10 years after rulemaking took place in some cases.

Transcribed interview data were coded using an a priori codebook constructed based on the literature on participation and strategy, as related to the research questions and hypotheses for this study. The goal of this coding process is to sort complex, narrative data into categories in order to understand commonalities and differences among cases, regulatory topics, and categories of actors interviewed for this study (Miles and Huberman 2013). Examples of the codes used for analysis include the following:

SUPERCODE:

STKHLD—Mentions of how/when/with what effect stakeholders are involved in rulemaking processes

SUBCODES:

DIRECT—Mentions of direct stakeholder input or influence in rulemaking

LOBBY—Mentions of lobbying elected/appointed officials and its influence on rulemaking

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INDEXP—Mentions of agency treatment of industry as experts and the corollary influence on rulemaking

NVivo qualitative analysis software was used to code and analyze the interview data, making it possible to detect cross-case patterns in the levels of participation by stakeholders during rulemaking and strategies employed by stakeholders during rulemaking. This cross-case analysis is consistent with the analysis procedures outlined in qualitative research methods literature (Auerbach and Silverstein 2003; Barbour 2001; Miles and Huberman 2013). The coded interview data are analyzed after coding is complete by examining each "bin" of data related to a specific theme to assess whether there are patterns within the qualitative data within or across cases, states, or sectors. While we do not find, and therefore do not report, patterns within cases (aside from nuances of energy versus agricultural production, for example) or states, we do find patterns in stakeholder strategy according to the sector that the actor or organization represents (industry vs. advocacy group). These findings are reported below. Qualitative data are presented using alpha-numeric codes to identify the state, case name, and subject ID (e.g., PA-CAFO-1 is an interview from the Pennsylvania CAFO case) and maintain subject confidentiality. When relevant, we also indicate whether the subject represents an industry or advocacy stakeholder interest. The quotations reported represent the major patterns found in the interview data and are examples of the most succinctly stated data points.

Public comment. Formal rulemaking comments submitted during public comment periods were collected in each case to analyze formal stakeholder input in rulemaking. Comments were coded according to the three following codes and counted to understand the categories of actors that submitted the comments and the content of their comments: (1) actor category—industry, advocacy, and so on—of submitter; (2) content of the comment: (a) broad political comments that often are political or moralistic in nature, representative of an outsider strategy, or (b) use of science or technical evidence in comments, representative of an insider strategy. The total percentage of form letters used by each group—a tactic typically associated with the outsider strategy of illustrating broad public support for a general political position—was also calculated for each case.

Research Findings

The hypotheses presented above will be addressed in turn, drawing on the multiple sources of data outlined above. First, we proposed that when industry and advocacy actors participate in rulemaking, they will use different strategies to accomplish their policy goals. Specifically, in H1, we predict that industry actors are more likely to use insider strategies when participating in rulemaking, such as bringing expertise to the technical aspects of regulations, than advocacy group actors. In H2, we predict that advocacy groups are more likely to employ outsider strategies such as campaigns and

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political mobilization to influence rulemaking in accordance with their broader political goals. The analysis of these hypotheses will be addressed drawing on a combination of interview data and coded public comment data.

To begin this analysis, we focus on self-reports from rulemaking stakeholders to understand whether they utilize insider or outsider strategies, as well their motivations for using such strategies. Industry representatives across rulemaking topics frequently used technical evidence, which is an insider strategy, as illustrated in the data presented below. Technical evidence can include economic data, water quality studies, technical feasibility data, and similar sources of information, as well as technical edits to the language of the rule (as opposed to statements of broad agreement/disagreement with its content):

> Most of the RPS decisions seem to be economic, economically driven. Price was a big issue and we had economists. (CA-RPS-2) [Industry]

> We'll bring in our technical consultants for the nitty-gritty things and we'll bring in our outside attorneys for the complex legal issues, but for the most part we have somebody who does research here as well. (CO-HFD-2) [Industry]

> [T]ypically the trade associations like to give very precise suggestions: "If the rule could be written this way it would be more practical." So they'll take the section and rewrite the language. (PA-HFD-2) [Industry]

Despite the common use of technical information by industry stakeholders, not all actors consider it to be an effective strategy. Some interview subjects suggested that providing evidence of technical feasibility and similar data is indeed more influential than providing scientific evidence of broad environmental harm to support stronger regulations (a strategy which would likely be used more often by outsider groups):

> Now, there is a lot of technical information brought in. Examples of that are the technical issues around inter-connection . . . what kinds of relays will you require . . . does that disconnect switch have to be there . . . are there really safety issues behind the meter generation. So there's a lot of those sorts of things. (CO-RPS-4) [Industry]

> It is a somewhat technical forum, you do (need) a certain level of legal and economic expertise to make progress there . . . I think for the first time you were starting to see the commission wrestle with some of these maybe not directly financial benefits of these resources, how do you account for the water savings, the pollution savings, the greenhouse gas savings, how does that affect the reason you're acquiring these resources, how does that factor in to the cost, those kinds of things. (CO-RPS-2) [Advocacy]

Others, however, suggested that by focusing solely on technical information, they had done a disservice to their own interests, particularly in high profile rulemaking topics that garnered significant public interest such as hydraulic fracturing:

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> So throughout the hydraulic fracturing debate, one of the strategic mistakes was we solely focused on the science and engineering, right? . . . What matters is the integrity of the well, right? So we did have this sort of public misperception fed into Hollywood and other places that you were going to frack and those fractures were going to go two miles wide and it was going to go to the surface and you were going leak. (CA-HFD-3) [Industry]

Consequently, some industry actors also discussed the importance of providing other types of information beyond technical information. In some cases, particularly when regulators may not understand complex industry practices or understand the unique perspectives of the regulated community, drawing on lay expertise of constituents such as farmers and drilling operators was viewed as a useful tactic, similar to the broad, political strategies we expect from advocacy organizations:

> It was a political process no matter how you cut it, but I would say to you it was always with the intent of helping people to understand; we felt that we had to help farmers be understood. It's not an easy thing to do when people didn't grow up on farms. (MI-CAFO-2) [Industry]

> So we have to make sure that the dairy farmers know about it, that they show up, that they talk about the issues that are specific to them. And so we make a concerted effort to make sure that dairy farmers participate in the process. (NC-CAFO-5) [Industry]

> We have thousands of farmers who are members of our organization and sometimes they're actually the best source of trying to take regulatory concepts and provide insight from the standpoint of … understanding of what this standard does to the daily life and function of a farmer affected by the regulation. (PA-CAFO-4) [Industry]

Unlike the descriptions of industry strategies presented above, interview subjects from both sectors described advocacy groups' frequent use of outsider strategies when participating in rulemaking, such as mobilizing a large amount of public input through form letters:

> A lot of those [public comments] were not unique comments; they were [form letter comments] generated by an environmental group, so we had basically the copy and paste going on for a lot of those comments . . . this became the reason for existence for a lot of the environmental groups in California . . . And so for that reason, they were motivated to go out there and generate 170,000 comments . . . So we're the birthplace of the environmental movement . . . so they're going to be able to generate the comments and the rallies and some public attention. (CA-HFD-3) [Industry]

> All of those organizations are much more citizen-oriented, and they tend to generate quite a bit of citizen comments, and sort of that typical grassroots involvement, actively engaging the press with that level of high public visibility. (NC-CAFO-4) [Advocacy]

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> It's kind of like a typical issue campaign, rulemaking in Pennsylvania, so that there is an effort . . . you get as many comments in as you possibly can. If there are public hearings, you try to pack the public hearings with supporters. And then all along the way you just kind of repeat messages and repeat messages and repeat messages about why it's so important. And you do that with any kind of outlet that you've got. It could be op-eds, it could be letters to the editor, it can be in-house publications that go out to folks. (PA-HFD-3) [Advocacy]

However, there was also evidence that advocacy organizations that have access to more organizational resources (financial, technical, or personnel resources in particular), went beyond these outsider strategies to also draw on technical and legal expertise in their rulemaking participation—an insider strategy:

> You approach regulatory rulemaking the same way that you approach litigation, pulling together your experts, pulling together your facts, pulling together all of your underlying research to understand where your legal case needs to be fortified with that kind of information, and then pulling and finding the best resource to plug in that piece of information. (NC-CAFO-4) [Advocacy]

Relatedly, environmental advocacy groups with fewer resources and less capacity formed alliances with more professionalized groups from both the advocacy and industry sectors that possessed expertise in the topical area, indicating that they perceived these insider strategies as effective. This may be related to the fact that strategies typically used by outsider groups, such as large-scale public mobilization with broad or generic form letters, are often seen as an ineffective way to influence regulators (Crow, Albright, and Koebele 2015a); thus, lower-resourced groups sought creative ways to engage in insider strategies:

> After the initiative was passed, those [lower-capacity environmental advocacy] groups wanted to stay involved but really didn't have a lot of expertise and capability to engage at a commission so we did represent that coalition [of environmental advocacy actors] before the Public Utility Commission. (CO-RPS-2) [Advocacy]

> Usually groups who had the capacity to [participate in the formal process] would do their own really comprehensive comments. And then there would be a simplified version that went . . . to groups that didn't have the capacity to be able to do that kind of stuff [on their own]. (PA-HFD-3) [Advocacy]

> We have some allies who are former industry employees who provide a level of technical expertise that you can't really get anywhere else. Firsthand field experience speaks for itself in a lot of ways. (CA-HFD-1) [Advocacy]

> So we have worked with [Union of Concerned Scientists] a lot because again that group tends to be more knowledgeable than other groups, but they also tend to have some facts. They tend to know what they're talking about a little bit more than some of the other environmental groups that are single trick and don't have a lot of depth. (CA-RPS-3) [Industry (solar)]

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Industry actors also reported frequently forming coalitions with fellow industry actors during rulemaking processes as a strategy that minimized competition, displayed solidarity among multiple actors, and aided resource-limited industry groups:

> We think it makes sense for us to cooperate and rather than develop 18 different comment letters based on various sets of information that we agree are common sets of information and work together to prepare comments that are consistent … so we are speaking with one voice as an industry. (CA-CAFO-3) [Industry]

> I think on this issue the formal partnership that we had was with our fellow commodity groups . . . so our milk producers, our pork producers, the Poultry Alliance, Cattle Association . . . throughout this whole process we submitted joint comments. Agriculture was very united. (MI-CAFO-2) [Industry]

> We kind of work together in the industry a lot, you know, with people attending meetings and keeping track of what's going on. It does tend to be project specific—we don't keep a large permanent staff or anything like that—we just form the groups as needed for the project at hand . . . it's probably more effective to be joint we think, get the whole industry. (MI-RPS-3) [Industry]

To determine whether self-reported use of certain insider or outsider participation strategies in interview data corresponds with the information actually submitted to rulemaking agencies by different stakeholder groups, we analyze the content of the public comments submitted for each case. All comments were coded as to whether they used insider strategies (defined here as providing technically focused information) or outsider strategies (defined here as providing non-technical appeals, such as overarching concerns for the environment or human health or political/moral calls for environmental protection).

Based on the literature and interview data, we expect that industry actors are more likely to submit technically focused comments, whereas environmental advocacy groups may use a combination of technical and non-technical comments. However, based on the public comment analysis, industry actors and environmental advocacy groups and did not use technically focused information at different rates (Table 2, Wilcoxon signed pair test, $p = .65$). Importantly, however, advocacy organizations' use of technical arguments, as a percentage of total comments, did significantly vary across regulatory issues (Kruskal–Wallis, $p < .01$), with greater use of technical information in fracking and less in renewable portfolio standard cases. Despite the technical nature of renewable energy production, this difference makes sense when considering that hydraulic fracturing was newly being regulated in many states and much of the regulatory impetus related to scientific uncertainty over the risks of the industrial practice; therefore, technical information and science would seem central to considerations over strength of regulations. Despite perceptions among interview subjects that technically-focused strategies were more frequently and successfully employed by industry actors, analysis from coded public comment data do not suggest significant differences between industry and advocacy groups in using such strategies overall. Potential reasons for this finding will be discussed further below.

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Table 2. Public Comment Counts and Information Strategies by Industry and Advocacy Stakeholders.

	Overall comment counts by stakeholder group						Strategic information in comments				
	Individual	Form letter	Industry	Advocacy	Advocacy multi-signatory[a]	% Industry technical	% Advocacy technical	% Industry non-technical	% Advocacy non-technical	% Form letters industry	% Form letters advocacy
CAFO											
California	1	0	13	23	0	92.3	52.2	0	0	NA	NA
Colorado	0	0	68	0	0	16.18	NA	0	NA	NA	NA
Michigan	14	24	17	5	0	41.2	80	29.4	20	58.3	41.7
North Carolina[b]	228	244	33	23	0	78.8	69.6	54.5	17.4	7	93
Pennsylvania	157	114	11	14	1 (16)	72.7	71.4	9.1	7.1	0	100
HFD											
California	121,311	121,033	20	99	4 (44,297)	60	87.9	50	83.8	0.59	99.41
Colorado	197	12	18	28	1 (45)	44.4	57.1	0	33.3	0	100
Michigan	557	383	10	65	2 (2,254)	10	90.8	20	21.5	1.57	98.4
Pennsylvania	2096	1,853	12	63	0	91.67	92.1	0	11.1	0	100
RPS											
California	0	0	51	32	0	33.3	40.6	0	0	NA	NA
Colorado	533	487	49	9	1 (44)	4.1	0	2	0	0	100
Michigan	1	0	26	4	0	3.8	0	0	0	NA	NA
North Carolina	1	0	33	11	1 (658)	6.1	9.1	0	0	NA	NA
Pennsylvania	1	0	27	13	0	22.2	9.1	0	0	NA	NA

Note. CAFO = concentrated animal feeding operations standards; HFD = hydraulic fracturing disclosure rules; RPS = renewable energy portfolio standards.
a.Multisignatory letters are reported as: n (# signatures).
b.Shaded cases indicate those that had higher issue salience as measured by media coverage of the issue or regulatory case in statewide newspapers, as reported in earlier published research (Crow, Albright, and Koebele 2016).

Alongside the use of technical information, Table 2 also explores the use of non-technical comments to test H2 (i.e., those focused more on broader political/moral appeals), as well as the percentage of form letters submitted by citizens on behalf of either industry or advocacy groups. As stated above, generating large volumes of form letters is typically considered an outsider strategy for influencing the policy-making process. The percentages of non-technical comments did not significantly vary between industry and advocacy groups (Wilcoxon signed pair test, $p = .51$), similar to the finding above regarding the use of technical information by stakeholders. However, when analyzing only those cases where form letters were submitted, there is a statistically significant difference (χ^2 (7) = 1.5*10e3, $p < .001$) between the frequency of form letters that were mobilized by industry and advocacy organizations across the eight cases. In this analysis, advocacy organizations were found to be significantly more likely to use form letters, as compared to industry organizations. These form letters are one of the possible outsider strategies mentioned above, which involves mobilizing constituents to write or submit pre-written public comments during rulemaking.

Based on the data presented above, H2 is partially supported in that advocacy stakeholders are more likely than industry to draw on outsider strategies such as using form letters to influence rulemaking decisions. The complete data set of public comments (beyond only form letters), however, does not show significant differences between industry and advocacy stakeholders based on the degree to which they use insider strategies, providing lack of support for H1. It is important to note that neither category of stakeholder relies upon a single strategy; both appear to have adopted insider and outsider strategies in different contexts.

Finally, we posited that actors employing insider strategies would perceive participation in the formal rulemaking process as more effective for accomplishing their policy goals than actors using outsider strategies (H3). This expectation specifically does not attempt to understand whether actors' perceptions are a result of dissatisfaction with the process/outcomes, or whether their choice of strategies is dictated by expected efficacy, which are both important questions for further analysis. To address this hypothesis, we draw on interview data from subjects representing both industry and advocacy sectors. Although perspectives on participation were not identical across cases, advocacy actors who we had posited were expected to employ outsider strategies more often were less likely than industry actors to view their participation in the formal rulemaking process as an effective way to influence rulemaking decisions:

> I feel like we've been very influential due to our technical ability to address the facts of the case. They need for us to figure it out and we do that where other groups just like to yammer and complain rather than comply and help solve the problem. (CA-RPS-3) [Industry]

> Honestly I don't know that they made any significant changes in response to our comments. I think they made significant changes in response to the utilities and the public staff [but not us]. (NC-RPS-1) [Advocacy]

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> And while things impacted them [Investor Owned Utilities, IOUs] and their rate payers differently than it impacted municipalities and the co-ops . . . they carried a big stick. As [industry] lobbyists, they contributed a lot of money down there . . . and I can tell you, if there's a regulation that is adverse to the cities or adverse to the co-ops, but beneficial to the IOUs, it's going to get passed. It's going to get adopted. They've just got bigger clout. (NC-RPS-5) [Advocacy]

Despite this, subjects in multiple cases indicated that their potential to influence the rulemaking process was not a major driving factor in their choice of participation strategies. Rather, the need to participate in as many aspects of the policy process as possible, from lobbying to legislative activity to the formal rulemaking process, due to their organizational mission or simply out of necessity to have voice in the process, drove them to participate:

> That's pretty much why we exist, just to protect our member's ability to do business in California, and so if there are either pieces of legislation proposed or regulations pertaining to us, then yes, we'd be involved. (CA-HFD-3) [Industry]

> Having been a regulator, I certainly knew and understood how extremely important that it is. I mean, you've got to be there. (NC-CAFO-8) [Industry]

> We really negotiated with one of the utilities and one of the consumer groups so we fashioned the law and then of course [the state of California] had to go implement it . . . [our participation] was a natural carry-on of the [legislative] process. (CA-RPS-3) [Industry]

> We decided with our colleagues that it made sense to go to the citizens with a ballot initiative . . . and it was successful and that created the renewable energy standard in Colorado. But once the policy was created, of course, it needed to be implemented and rules needed to be put in place and so we recognized that we were going to need to be engaged in that [regulatory] process . . . (CO-RPS-2) [Advocacy]

> [Specific advocacy organization] were actively engaged on the executive branch lobbying side, as well as the legislative lobbying side. And probably would have filed lawsuits . . . I think [name of organization], unlike other organizations, moves easily between the three branches of government. So, the efforts shifted, depending on where the locus of the activity was. (NC-CAFO-4) [Industry]

Additionally, both industry and advocacy stakeholders stated that the nature of the legislation preceding a particular regulatory process influenced their perspectives on the importance of participating in the formal rulemaking. When the legislation included more thorough details and prescriptions for implementation, interview subjects routinely stated that it was less important to participate in rulemaking as indicated in the quotations below, while the opposite is true when legislation is broad or grants wide discretion to the agency. The influence of court decisions requiring regulatory action and the specificity of such decisions, such as with the CAFO issue studied here, may

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have the same effect on the perceived necessity of participating in rulemaking. In the CAFO issue, the federal court allowed for states to promulgate their own rules based upon certain state-specific conditions, giving greater discretion to state regulators than if the court had prescribed rules and potentially raising the perceived importance of participation for stakeholders:

> This one was really dictated, directed by the [specific language in the] legislation. (CA-HFD-3) [Industry]

> So in Michigan at the time, it was a Republican controlled legislature and the Democrats controlled governorship so they were going to put it all in the legislation. Whereas, if the same party controls both chambers and the administration then you'll see a lot more trust and delegation of that responsibility to the administration. (MI-RPS-2) [Advocacy]

> The statute was much more important [than the subsequent regulations] in Pennsylvania. (PA-RPS-3) [Advocacy]

> Because you've heard the expression "the devil is in the details." Well, the rules are the details. I mean, the statute sets out these 50,000-foot objectives and the rules end up telling you how you've got to get there. (NC-RPS-5) [Industry]

Participants in both industry and advocacy sectors agreed that forces beyond their control also shaped their participation and the eventual outcomes of rulemaking. The political landscape can alter the mechanisms for possible participation, particularly if there is strong support or opposition from a governor or voters on a particular rule:

> Yeah, the administration did not want to have a rulemaking that was really contested, they were putting a lot of emphasis on trying to come up with a consensus rule and so there was . . . a number of stakeholder meetings, a lot of discussions, and we hadn't really gotten to an agreement . . . basically a deal got struck and that got rolled out and was announced at the hearing the following day. (CO-HFD-3) [Advocacy]

> But, this [RPS issue] had more passion behind it because it had businesses and it was strong advocates . . . and people were invested in . . . the voter initiative [and that put pressure on regulators for a similar outcome]. (CO-RPS-4) [Industry]

Finally, in several cases, participation in the formal rulemaking process was less important for industry than the informal relationships they had built over time through consistent involvement with the regulatory agency. These relationships provided stakeholders access to regulators that other organizations not involved in prior rulemakings did not enjoy. While industry groups may enjoy insider access to rulemaking processes due to agency discretion, this finding adds a somewhat counterintuitive nuance: some groups establish such a great degree of insider status with certain regulators that they are able to supersede participation in formal rulemaking altogether:

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> What it took me a while to learn working for these rulemakings is that what actually happens in these hearings is just the tip of the iceberg and that the bulk of what happens is done in these negotiations outside the hearing room and I mean it's a lot of negotiation. (CO-HFD-3) [Advocacy]

> I would say in the overwhelming majority of our concerns they addressed before . . . formally proposing that rulemaking, thereby kind of eliminating the need for us to offer comments expressing concerns. (PA-CAFO-4) [Industry]

> So what the trade associations do generally is they'll provide written or oral comment to the department even before the draft regulation is posted and that's what the agency has solicited, that type of information. (PA-HFD-2) [Industry]

Based on the interview data presented above, while advocacy actors do—consistent with H3—appear to view rulemaking as less effective to achieving their policy goals than do industry stakeholders, efficacy does not appear to be the driving motivation for participation by either industry or advocacy actors. This finding may be related to the findings from our other hypotheses where actors' strategic choices in rulemaking participation are not neatly categorized according to whether the actor is an insider or outsider to rulemaking. For example, environmental advocacy actors (typically considered outsiders) regularly use insider strategies as described above. It may also be related to the degree to which organizational resources allow participation by an actor in multiple decision venues. If rulemaking is viewed as simply what is necessary for continued vigilance within the policy process, either for ensuring that the regulated industry's concerns are addressed, or for ensuring that advocacy groups' policy goals within other venues (judicial or legislative) are not thwarted in the regulatory process, they may participate regardless of whether they perceive the rulemaking venue to be highly effective for pursuing their policy goals. However, a group's prior relationships with regulators may make such vigilant participation less necessary. This suggests that while outsider groups may perceive their participation in rulemaking as less effective than insider groups, these actors may be unlikely or unable to change their strategic choices about participation.

Discussion and Conclusion

This study focused on the strategies used by industry and advocacy stakeholders to participate in state-level rulemaking and their perceptions of the effectiveness of these strategies in the formal rulemaking processes. Two hypotheses suggested that, depending on their status as outsiders or insiders, actors might use different strategies when participating in rulemaking processes. Here, we articulate expectations for industry actors to be insiders and also employ insider strategies. Advocacy groups were expected to vary to a greater extent, but be more likely to employ outsider strategies. The third hypothesis built on these, suggesting that insider groups would perceive the formal rulemaking process as more effective to achieve their goals than outsider groups.

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With regard to the strategies that industry and advocacy actors employ during rulemaking (H1 and H2), the hypotheses we proposed were supported in part, but important nuances in the findings require additional discussion here. Beyond reliance on technical data (insider strategy), industry stakeholders may use coalition-building with other industry actors and relationships with regulators (insider strategy) as participation strategies, and occasionally represent their interests by mobilizing constituents (outsider strategy). This final strategy, however, is likely more effective in certain contexts such as agricultural issues where industry actors are viewed more sympathetically by the public (i.e., small farmers instead of large oil and gas companies). Advocacy groups are also likely to draw on technical expertise when they have the resources to do so (insider strategy), but are more likely than industry to also use citizen mobilization strategies such as form letter comments (outsider strategy) to influence rulemaking. Advocacy groups show a greater degree of variation in organizational capacity, with some groups more limited by resources.

One surprising finding, wherein the qualitative data and quantitative data did not support the same conclusions regarding the likelihood of industry to use technical data more often than advocacy groups, is worthy of additional discussion here. We posit that there are several possible reasons for this result. First, over the past 40 years, the environmental advocacy community has become radically more professionalized than in its early years (Andrews and Edwards 2004; Kraft 2015; Vig and Kraft 2003), but there may be lingering perceptions about the capacity and strategies employed by environmental advocates that influence the qualitative data. Second, because smaller advocacy organizations are likely to work with larger groups and rely upon outside resources, self-reported data may reflect that these smaller groups do not rely upon technical data in their own activities; yet the comments they submit—either independently or jointly—rely on technical data produced by other groups. Third, as illustrated in some of the interview data presented in this study, some advocacy groups are likely to attract significant attention based upon their publicly visible approaches to participation. Some studies have shown that these tactics may garner more media and public attention to advocacy group issues, which may encourage continued use of such tactics (Andrews and Caren 2010). These instances, even if in the minority, may shape perceptions about environmental groups more generally.

Findings presented above also suggest that, as expected, advocacy actors are less likely to perceive their participation in rulemaking as effective to accomplishing their policy goals as compared to industry groups, who are frequently characterized as insiders (H3). However, effectiveness of participation does not seem to be the overriding reason for participation by actors considered either insiders or outsiders. Rather, the need to develop relationships with agencies, the need to be a "watchdog" during rulemaking after the more political legislative activities are concluded, and similar motivations were suggested as the most important reasons for participation in rulemaking.

This study begins to tease apart some of the complexities of decisions made by advocacy organizations with regard to their participation strategies during rulemaking at the state level. We find that actors in both industry and advocacy sectors participate during rulemaking, but that they tend to employ somewhat different strategies when

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doing so. The rewards in terms of resource gains for advocacy stakeholders for engaging in externally focused strategies may outweigh other rewards, particularly if an advocacy organization is engaged in opposition to a powerful industry actor with deep ties to the agency, in which case advocacy actor decision-making influence may be limited. In these situations, it may be more advisable for advocacy organizations to focus their limited resources on external audiences that can help them gain additional resources or attention.

The findings presented above allow us to draw some theoretical conclusions to be tested in future research. First, the findings indicate that when a rulemaking decision provides ample room for agency discretion and rule development based on stakeholder input that a wider variety of stakeholders may participate and that they may draw on both insider and outsider strategies. We saw this in the CAFO case where a court ruling allowed discretion by states to develop locally responsive rules. We also saw this in Michigan where interviews indicate that a legislature that trusts its executive branch (i.e., they are both controlled by the same political party) may grant wider discretion to the agency charge with promulgating a rule. Second, these findings suggest that if stakeholders count a membership base among their resources, we expect they are more likely to draw upon this membership base to attempt to mobilize letter writing campaigns or other outsider strategies. We may also see these membership organizations more likely to use outsider strategies when discretion is granted to a regulatory agency, thereby giving these stakeholders opportunity to draw upon their membership to influence a decision process that is not expected to be governed by technical expertise.

Beyond the findings discussed here, this study provides several contributions that advance the rulemaking and state politics and policy literatures. First, the multiple-case analysis conducted in this study and the resulting nuanced findings suggest that, methodologically, state politics and policy scholars should continue to develop and utilize innovative multistate research designs in their analyses. Moreover, using a combination of quantitative data, as is often done in policy diffusion literature (see, for example, Boehmke and Witmer 2004; Matisoff 2008; Nicholson-Crotty and Carley 2016), as well as qualitative data as we do here, can help develop a richer and more detailed understanding of the political processes at work in state settings. We demonstrated, for example, that conflicts among qualitative and quantitative findings may provide new insight into the choices actors make about their participation strategies. Finally, this study reinforces the need to conduct political and policy research beyond the federal level when possible. Because state-level policymaking processes, particularly in regulatory venues, may be less publicly visible and include fewer actors than federal processes, different patterns of influence and participation may emerge. These patterns merit investigation, especially because they can provide insight into the reasons for differences in rulemaking outcomes across U.S. states.

Future studies should attempt to further elucidate the reasons why highly professionalized advocacy organizations that have the resources and organizational capacity to select from a wider menu of participatory strategies (i.e., the Sierra Club, Natural Resources Defense Council, and others) continue to utilize outsider strategies, such as mobilization for broad public comments that are typically be considered to be less

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effective during rulemaking. Future research may also discover interesting patterns in actors' use of participation strategies during multiple or iterative regulatory processes. In such an analysis, scholars should investigate whether organizations learn and adapt their strategies during subsequent iterations of rulemaking. This would be particularly interesting when analyzing the choices of stakeholders that are new to the rulemaking process in the first instance, but who become more skilled at navigating processes during subsequent rulemakings. Based on the initial findings described above, it may also be fruitful for scholars to analyze whether the degree of discretion granted in enabling legislation influences the strategic choices made by stakeholders to the rulemaking process. Finally, while this study selects cases for analysis across states and topics, the findings presented here could be expanded through the use of surveys and other methods to understand if these results are generalizable across organizations, additional states, and sectors beyond environmental rulemaking.

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Notes

1. Findings from one additional case—hydraulic fracturing disclosure rules in North Carolina—are not presented here because the rulemaking process was still ongoing during data collection for this study.
2. Full analysis from the Public Integrity Project can be found at: https://www.publicintegrity.org/2015/11/03/18822/how-does-your-state-rank-integrity. The states included in this study ranked from most transparent/least corrupt to least transparent/most corrupt are California, Colorado, North Carolina, Pennsylvania, and Michigan (ranked 50 of 50).
3. Central Valley Regional Water Quality Control Board (2014).
4. California = 33% by 2020; Colorado = 30% by 2020 for investor owned utilities; Michigan = 10% by 2015; North Carolina = 12.5% by 2021 for investor owned utilities and 10% by 2018 for other utilities; Pennsylvania = ~18% by 2021 (U.S. Department of Energy 2018).

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