

Environmental rulemaking across states: Process, procedural access, and regulatory influence

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Abstract

Rulemaking is central to policymaking in the United States. Additionally, regulatory authority is devolved to the states in many instances. However, our knowledge of state-level rulemaking is not as advanced as that related to federal rulemaking. To advance the scholarship on state rulemaking, this study compares environmental rulemaking across three environmental issues (renewable portfolio standards, concentrated animal feeding operation regulations, and hydraulic fracturing disclosure rules) in five states (California, Colorado, Michigan, North Carolina, and Pennsylvania) to understand procedural and stakeholder participation commonalities among the cases. Using data from public rulemaking documents, stakeholder comment during rulemaking, and in-depth interviews with agency staff and stakeholders, the findings suggest that there are common patterns of pre-process informal stakeholder consultation, public comment and outreach mechanisms, and corollary issues related to stakeholder access across these cases. These findings advance our knowledge of state-level rulemaking as it relates to public input and procedural equity for stakeholders.

Keywords

Environment, governance

Introduction

Rulemaking is becoming increasingly central to policymaking in the United States (Kerwin and Furlong, 1992; Yackee, 2006), particularly as political polarization has stymied progress

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in legislative policymaking venues. Additionally, regulatory authority has been devolved to the states in many instances, emphasizing the importance of state-level regulation in the overall regulatory structure of the United States. Our knowledge of state-level rulemaking, however, is still not as advanced as that related to federal rulemaking. Despite scholarly interest in the regulatory process, albeit primarily at the federal level, the enduring question of, “the degree to which administrators use public feedback to inform the content of government regulations” (Yackee, 2013: s105) persists. To answer this question, we not only need to understand how and to what extent stakeholders participate in rulemaking, but also the degree of access they have to the rulemaking process. These answers can help scholars to better understand the procedural dynamics that influence rulemaking outcomes.

To contribute to the scholarship on state-level rulemaking processes, this study compares environmental rulemaking across three issues (renewable portfolio standards, concentrated animal feeding operation (CAFO) regulations, and hydraulic fracturing disclosure rules) in five states (California, Colorado, Michigan, North Carolina, and Pennsylvania) to understand stakeholder access to and participation in rulemaking processes. Environmental rulemaking is a particularly useful area of inquiry for this study due to the frequent focus on multi-stakeholder involvement in decision making in environmental issues (see for example, Gregory, 2000; Gregory and Keeney, 1994; Maguire and Lind, 2003). With this expectation as a starting point, environmental rulemaking processes can be assumed to include the variables we analyze here – stakeholder participation and access. Using data from public rulemaking documents, stakeholder comment during rulemaking, and in-depth interviews with agency staff and stakeholders, the findings of this study suggest that there are common patterns of pre-draft informal stakeholder consultation and public comment outreach mechanisms which may dictate the procedural access to rulemaking processes that stakeholders have in the states. These findings support and expand previous research (Authors, In Press) and advance our knowledge of state-level rulemaking as it relates to public input and procedural access for stakeholders.

Stakeholder participation in rulemaking

Some of the enduring questions related to rulemaking processes involve the degree to which citizens influence regulatory processes compared with organized interests in the regulated community or advocacy community (Yackee, 2013). Prior research posits that organized interests often provide the bulk of comments during federal-level rulemaking processes, with most comments coming from the regulated community (Cheit, 1990; Golden, 1998; Montini et al., 2002). Some studies do, however, question the extent to which the regulated community influences the rulemaking process (Cropper et al., 1992; Golden, 1998; Nixon et al., 2002). Woods (2009) has stressed the need for a greater understanding of how participation mechanisms alter the influence of interested actors and the public on rulemaking. Additionally, the studies on participatory procedures and input during rulemaking processes have primarily focused on the federal level, while state-level rulemaking processes remain understudied.

Wilson (1989) argues that industry¹ often has a much greater incentive to participate in rulemaking processes that govern their activities. Industry also often possesses the most current technical information regarding the activities to be regulated, and therefore may provide the most useful information to regulatory bodies. However, despite the need for and likelihood of industry participation and involvement in rulemaking, democratic norms would dictate that some citizen input is both necessary and desirable. In some regulatory cases, citizens may, indeed, effectively influence

rulemaking (Cuellar, 2005; Layzer, 2012), or even provide the majority of input during comment periods (Cuellar, 2005).

Public comment and other non-regulated stakeholder participation in state regulatory processes vary by regulatory topic and agency, but may only minimally influence regulatory outcomes (Shapiro and Borie-Holtz, 2013). The most common form of public participation is through formal public comment mechanisms. However, the content and amount of public and stakeholder² input received during the rulemaking process, as well as interest group dynamics (Furlong, 1997; Golden, 1998; West and Raso, 2013), and the timing and participatory procedures of the rulemaking process, may all influence rulemaking outcomes as much or more than public comment.

Participatory access to state-level regulatory processes

Unlike in legislative policymaking, regulations are promulgated by agencies that are not elected, and as a result, state and federal governments have developed processes to incorporate input from regulated communities and other parties potentially affected by proposed regulations. Administrative agencies may encourage democratic practices to increase the legitimacy and accountability of the bureaucracy and improve decision making processes through the use of more transparent and responsive rulemaking procedures (Jewell and Bero, 2007). Some states, of course, have developed more open democratic practices than others (Woods, 2009).

Similar to rulemaking at the federal level, state rulemaking processes are governed by a state's Administrative Procedures Act. Rulemaking consistently includes several procedural elements: (1) the issuance of a draft rule by a regulatory agency with a notice of rulemaking, (2) a pre-determined length of time during which stakeholders and the public can submit written comments in response to the draft rules, and (3) a decision by regulators to adopt final rules. In many states, such as Colorado in the study presented here, a formal hearing before a regulatory body is also held prior to a decision to adopt final rules. The composition, appointment process, and other details about the regulatory body may vary considerably among states or agencies. Moreover, the requirements for the length of public comment periods often differ among states. Formal or informal processes such as pre-rulemaking negotiations among stakeholders can also change the nature of this typical process.

Procedural dynamics in rulemaking and stakeholder influence

In addition to information received from the public and stakeholders during the public comment phase of rulemaking, agency processes, discretion, and resources may influence regulatory outcomes (Teske, 2004). At the federal level, an analysis of over 200 rules suggests that agencies have significant discretion during the rulemaking process and that legislative politics can heavily influence rulemaking (West and Raso, 2013). Teske (2004) concludes that while interest groups compete for influence across states and regulatory issues, state agencies have a high level of discretion in determining the final regulatory outcome. Agency procedures (either formal or informal) and administrative rules that govern rulemaking may also influence and circumscribe the actions of agencies (Shapiro and Borie-Holtz, 2013).

Rulemaking processes are not limited to the traditional notice and comment periods described above. Pre-rulemaking processes may take place during the period prior to the issuance of draft rules (referred to as "pre-draft processes" in this study) (West, 2004, 2009; Yackee, 2012). These processes that take place prior to the notice and comment period, or

outside of it, may diminish inclusiveness, transparency, and standardization of the rulemaking process (Mendelson, 2007; West, 2004, 2009). During these pre-draft processes, agency staff may invite stakeholders to discuss areas of potential conflict or concern and help develop regulations prior to draft rule notification. These processes can take the form of stakeholder workshops, informal consultations, issuance of working draft rules, and other mechanisms. These consultations provide agency staff with discretion regarding what interest groups and individuals are invited to participate in this phase of rulemaking (Mendelson, 2007; West, 2004, 2009). When rules are developed through such pre-draft processes, some argue that it is the indirect beneficiaries of the regulation, often the public, who lose voice in the process (Mendelson, 2007).

Pre-draft stakeholder processes can lead to actual or perceived bias of regulators in favor of the regulated industry (West, 2009; Yackee, 2012). To guard against this, some federal agencies develop advanced notices of proposed rulemaking (ANPRM), which notify the public of the initial phases of regulation development and invite input from interested parties. However, even when ANPRM is used, lobbying by interest groups can affect the content of regulation (Yackee, 2012). Because the majority of the studies of these pre-draft processes focus on federal-level regulation, it remains unclear whether state-level rulemaking processes follow the same processes and patterns of stakeholder access and input.

The literature on rulemaking presented above indicates that at the state-level, we should expect variance in the quantity and content of input that agencies receive from various interest groups, including the public and industry across issues and states. It also suggests that industry will have the greatest access to rulemaking processes due to reasons such as technical competency and past relationships with regulators. Finally, the presence of pre-draft rule procedures may be central to understanding the influence that various stakeholders have on rulemaking processes. These expectations guide the hypotheses articulated below and the analysis to follow.

Research questions

In previous research (Authors, In Press), we asked: *What stakeholder input is perceived as important to the regulatory process, and at which point in the process are these inputs seen as most influential?* Based on our previous work and that of other regulation scholars, it is clear that industry actors are often perceived as the most influential actors in rulemaking processes, especially in pre-draft rule consultations. We therefore expand our research here with the following hypotheses to further explore the degree of participation and access to rulemaking by stakeholders, with a specific emphasis on participation by industry actors:

H1: Industry actors will participate in rulemaking to a greater extent than non-industry actors.

H2: Industry access to regulators will be more pronounced when informal procedures are established to allow consultation between industry and regulators prior to formal public comment periods.

H3: Industry access to participation opportunities will be more dominant in processes where the regulated industry has prior relationships with the regulatory body from past rulemaking cases.

Research methods: Multi-case comparative analysis

To address the hypotheses outlined above, this study analyzed the actors and processes involved in rulemaking decisions using a comparative case study research design.

In-depth case studies on three regulatory topics were conducted across five states ($n=14$)³ in order to understand the various influences on rulemaking, using multiple sources of data as recommended by Yin (2003). The U.S. states of California, Colorado, Michigan, North Carolina, and Pennsylvania were selected based on variation in levels of government transparency, as measured by the State Integrity Project's (www.stateintegrity.org) government corruption index, as well as variation on the economic importance of the regulated industries involved in the rulemaking in each state. When multiple rounds of rulemaking on one of the selected topics took place within a state, the first instance of rulemaking was studied for this analysis (with the exception of CAFO rulemaking wherein many states were already regulating CAFOs prior to federal requirements for rule promulgation were issued in 2003, as detailed below). The same sources and types of data were collected and analyzed in each of the cases in order to provide consistency across cases and to allow for comparison between states and regulatory topics.

Regulatory case study topics

The following regulatory cases were studied across the five states included in this analysis. This multi-case analysis builds on previous work, which used a smaller sample of cases and states to explore the initial research questions that helped develop the hypotheses and research design used herein.

CAFOs standards

CAFOs are a contributor to water pollution problems in many U.S. states. The runoff from such "factory farm" operations can lead to excess nutrients in water bodies and associated environmental and human health risks (Steeves, 2002). In 2003 (later revised in 2008), the Environmental Protection Agency (EPA) expanded federal guidelines under which states were required to promulgate state-specific regulations concerning CAFOs, specifically related to pollutant discharge into water bodies (Environmental Protection Agency (USEPA), 2008). Prior to 2003, all states in this study were already regulating CAFOs, although it was a higher profile issue in some states such as North Carolina than in other states where the industry is not as economically and politically important. Under the revised EPA guidelines, each state is allowed to create regulations specific to the needs of the state, industry, and local water resources. In California, CAFO rules were promulgated at the regional level instead of statewide, so this study analyzed the rulemaking process in the Central Valley Region 5, where over 1500 dairies are located,⁴ which outnumbers many other states' total dairy industries.

Renewable energy portfolio standards. The majority of U.S. states have adopted renewable energy portfolio standard (RPS) requirements that specify what proportion of energy must be produced from renewable sources (US Department of Energy (USDOE), 2012). The states chosen for this study have all passed an RPS requirement, but they vary by stringency of requirement and timeframe required for compliance.⁵ Four of the states in our sample initiated their RPS through legislative action, while Colorado adopted its original RPS through citizen initiative (subsequent RPS increases were passed in the Colorado legislature). The RPS case is unique in that industry actors included the previously regulated investor-owned utilities as well as the growing renewable energy sector.

Hydraulic fracturing disclosure rules. Hydraulic fracturing uses water, sand, and chemical mixtures which are injected into wellbores to extract natural gas (Davis, 2012). Spurred in part by early studies on the effects of hydraulic fracturing (see for example Vengosh et al., 2014), citizens and environmental groups in some states are concerned about the potential environmental and public health risks associated with potential chemical contamination of nearby aquifers, the use of large quantities of water to extract the gas, and reinjection of contaminated water back into disposal wells which may cause induced local seismicity (Brown et al., 2013; Davis, 2012). In response, state governments have begun to enter into rulemaking processes to address the disclosure of the chemicals used in hydraulic fracturing operations, among other topics related to hydraulic fracturing. California, Colorado, Michigan, and Pennsylvania have promulgated regulations in recent years in response to local 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). It is important to note that not all citizens are concerned about the potential negative effects of hydraulic fracturing, and many see positive economic stimulus from oil and gas extraction in their states (Brown et al., 2013). As a result, some states are seen as more industry-friendly than others (Rabe and Borick, 2013) in their approach towards hydraulic fracturing.

Data collection and analysis

As outlined above, 14 cases are analyzed in this study using a comparative cross-case research design wherein the same types and sources of data were collected in each case. Data were gathered from three sources for this study: (1) regulatory documents, (2) rulemaking comments, and (3) interviews with staff from regulatory agencies in charge of the rulemaking processes under analysis,⁶ as well as industry, citizens, and NGO representatives involved in the rulemaking cases, as appropriate in each case. The regulatory documents related to rulemaking processes were gathered directly from regulatory agencies,⁷ including draft and final regulations, all public comments, formal statements, and any supporting documentation agencies used and made publicly available. Semi-structured interviews (n=39) were conducted according to procedures outlined by Rubin and Rubin (2005). Interviews were conducted with staff from regulatory agencies and representatives from interests involved in rulemaking (industry and NGO in particular); researchers sought to interview those directly involved in the rulemaking cases analyzed here when possible,⁸ focusing questions on the regulatory cases under analysis in this study rather than the agency procedures more generally. Information provided in interviews was compared with documents from the regulatory record when possible to confirm statements made by subjects, particularly where they related to timelines or the structure of the rulemaking process.

Data coding and analysis

Documents gathered from regulatory agencies across the 14 cases were coded using two methods. First, public rulemaking documents were analyzed for important dates, actors, and events that took place during rulemaking. Formal rulemaking comments were also coded and counted to understand the categories of actors that submitted the comments.⁹ A third type of coding was used for interview data. Transcripts of the semi-structured interviews were coded using a constant comparative approach in NVivo software to maximize consistency of coding and analysis, and to allow for examination of the variations and

similarities among interview subjects, categories, and cases (Miles and Huberman, 1994). Codes for analysis were created from the literature, focusing specifically on variables such as (a) stakeholder access and participation, (b) informal rulemaking consultations, and (c) dynamics of the rulemaking process. By breaking down the transcribed interview data into their basic concepts and frames, it was possible to detect patterns in the data and determine (1) the procedures employed by agencies to solicit input on draft rules, (2) other informal consultations held by regulators, (3) and the presence of any informal or pre-draft meetings that might advantage certain actors over others. A cross-case analysis was conducted based on case summaries, timelines, and interview data to determine common patterns across cases in order to form the basis of research findings presented below (Bourgeois III and Eisenhardt, 1988; Eisenhardt, 1989; Miles and Huberman, 1994). These three sources of data allowed researchers to construct a clear rulemaking history in each case and compare the coded material to provide insights across states, cases, and topics.

Research findings: Rulemaking information and stakeholder behavior

Prior studies (Cheit, 1990; Golden, 1998; West and Raso, 2013) have found that industry influence in rulemaking is the most pronounced compared to other groups at the federal level. To understand influence, we also must analyze access and degree of participation. We work through a three-step analysis following the hypotheses described above to understand these variables. We first propose the following hypothesis:

H1: Industry actors will participate in rulemaking to a greater extent than non-industry actors.

Formalized participation by stakeholders during rulemaking is straightforward to analyze. Table 1 provides data on formal comment received from all stakeholders in each case. The data indicate that citizens and other individual (non-industry) interests submitted the majority of the formal comments in 43% (n = 6) of the cases analyzed here. The cases in which individual citizens submitted more comments involved massive citizen input overall (see California's hydraulic fracturing case in Table 1, for example).

The volumes of citizen input in a handful of cases such as California's hydraulic fracturing case indicate that organized advocacy groups may play an important role in garnering citizen participation in rulemaking. As noted below, however, this input is likely of minimal importance to regulators due to its focus on broader political issues rather than the specifics of rulemaking.

Aside from these written comments, at formal public hearings organized interests (both industry and non-industry) were more often involved than citizens, according to interview subjects:

I mostly remember . . . it was probably 70–80% dairy industry folks actually testifying in hearings and most of the remaining 20% was environmental justice groups. (CA-CAFO-3)

. . . because the subject matter is somewhat technical—it's usually people with various technical or legal expertise or who have a financial stake in this process [and industry usually has that expertise]. (PA-RPS-1)

This aligns with previous study findings in that industry actors are expected to be the most vocal participants in rulemaking, particularly because they will typically bear the costs of regulation to a much greater extent than other parties.

While agency outreach to citizens and other non-industry groups may be viewed skeptically, in particular because agencies generally conduct such outreach due to

Table 1. Stakeholder comment by case.

Case	Individuals	Organized interests		Total
	Citizens ^a	Regulated industry or trade group ^b	Environmental advocacy group	
CAFO				
California	1	15	27	43
Colorado	0	68	0	68
Michigan	14	17	5	36 ^c
North Carolina	221	37	23	281 ^d
Pennsylvania	173	11	13	197 ^e
Total CAFO documents	409	148	68	625
CAFO by individual vs. organized interest	409	216		
Renewable portfolio				
California	0	51	32	83
Colorado	578	49	8	635 ^f
Michigan	1	24	6	31 ^g
North Carolina	1	34	666	701
Pennsylvania	1	27	11	39
Total RPS documents	581	185	723	1,489
RPS by individual vs. organized interest	581	908		
Hydraulic fracturing				
California	171,042	18	97	171,157 ^h
Colorado	197	18	27	242
Michigan	41	7	42	90 ⁱ
Pennsylvania	2098	12	63	2173 ^j
Total HFD documents	173,378	55	229	173,662
HFD by Individual vs. organized interest	173,378	284		

^aThe category "citizens" includes public citizens as well as individuals who identified themselves as business owners, but who are not affiliated with the regulated industry in the case analyzed here.

^bIn the RPS cases, industry and trade groups include both the traditional utilities, the renewable energy industry, companies with mixed energy portfolios, and other non-producer industrial interests.

^cIncludes 24 form letters submitted during public comment period, 13 coming from individuals.

^dIncludes 230 form letters submitted during public comment period, 210 coming from individuals.

^eIncludes 114 form letters submitted during public comment period, all coming from individuals.

^fIncludes 492 form letters submitted during public comment period, 487 coming from individuals.

^gIncludes 2 form letters submitted during public comment period, 0 coming from individuals.

^hIncludes 126,385 form letters submitted during public comment period, all coming from individuals.

ⁱIncludes 6 form letters submitted during public comment period, 0 coming from individuals.

^jIncludes 1853 form letters submitted during public comment period, all coming from individuals.

legislative mandates for public involvement, regulatory agencies are increasingly concerned with providing opportunities for public input into rulemaking proceedings for a variety of stakeholders, not only industry. This is particularly true in politically controversial cases such as the hydraulic fracturing disclosure rules:

So the big focus of our work is transparency in the process and providing opportunities for engagement, asking for more workshops and helping to route members of the public and other organizations and getting them in the room as well. (CA-HFD-1)

We also know from the literature (and supported by the subjects interviewed for this study) that public comment, either formal or informal, often does not carry the same degree of authority that expert or organized interests do in many instances:

Often times you get a lot of comments on a rule that aren't about the rule, are very general in nature, like 'you should do more to protect the environment,' or just technically completely inaccurate. . . . And you can imagine, the industry provides very detailed technical comments with arguments supporting their supposed regulatory revision language so it's almost like bringing a pillow to a sword fight by comparison where, 'do more to protect the environment' does not assist you in crafting a technical rule. (PA-HFD-1)

For instance, in Pennsylvania's CAFO rulemaking, 29 form letters included the statement "I oppose factory farms and CAFOs," and only 17 included further personalized content. California's hydraulic fracturing rulemaking saw similar formal comment, wherein numerous form letters stating "No amount of regulation can make fracking safe for our communities or the climate. If you are serious about addressing climate change, toss out these regulations and move to stop fracking in California now" were submitted. This may be due to the fact that environmental NGOs and the citizens they attempt to mobilize are simply working towards broader political campaign goals rather than the details that are under regulatory scrutiny:

As far as the big piece, I mean every single environmental group working on this issue in California is publically calling for a moratorium [on fracking], and that has never been seriously considered by the governor, by DOGGR [the agency that regulates oil and gas development in CA]. As far as our marginal changes, are they [DOGGR] making our number one demands? No. And they've not even considering [banning fracking] unfortunately. But are they improving on kind of the marginal things that we also need to improve on? Yeah, that's happening to some extent so it's kind of a mixed bag. (CA-HFD-1)

Generalized form letter comments on an issue such as those described above are of questionable use to regulators attempting to follow mandates from legislatures (in most instances) to promulgate rules within certain bounds. Of course when citizens and non-industry groups are vocal in terms of the sheer volume of comments they provide to regulators (see the CA hydraulic fracturing case, for example), tens of thousands of comments can provide regulators with important information on public tolerance of regulated industries or activities, even if the specific content of the comments is not useful to promulgating rules. Industry does, however, typically bring the most technical competency to bear on rulemaking processes, while citizens often comment on broader political issues that may not be within the scope of regulatory authority of an agency. Industry groups also collaborate in their rulemaking participation and their comments on proposed rules, which can increase their uniformity of demands and the likelihood of their influence over rulemaking, according to interview subjects:

Typically 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)

What was perhaps innovative here was . . . 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)

Formal comment might not reflect the entirety of stakeholder participation in rulemaking, however. The potential influence of stakeholders might differ from their level of participation

in public comment periods, especially in cases where pre-draft workshops or stakeholder meetings are held prior to formal rulemaking:

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

Due to the different ways in which agencies can set up the rulemaking process, industry and other organized interest groups may gain additional access to regulators during the rulemaking process. This may provide opportunities for them to build relationships with regulators that may help them influence rulemaking process to a greater degree than their opponents. The next hypothesis helps structure an analysis of these informal pre-draft rulemaking opportunities for stakeholders.

H2: Industry access to regulators will be more pronounced when informal procedures are established to allow consultation between industry and regulators prior to formal public comment periods.

It is the norm in the cases studied here to include some type of informal pre-draft rulemaking process. These can include workshops where stakeholders discuss points of contention, distribution of working draft rules to interested parties wherein regulators seek comment on specific elements of rules, or one-on-one meetings with interested parties:

In general the Commission... has really pressed to have a significant stakeholder process before we get to the formal rulemaking process. (CO-CAFO-1)

You know, maybe [we begin with] some kind of draft rules for a point of discussion and then [we] got the stakeholder groups involved to get their input and comments. (MI-CAFO-1)

DWQ did conduct multiple stakeholder processes for development of the initial set of regulations... They referred to it as a stakeholder process... (NC-CAFO-2)

We met separately with the Pennsylvania independent Petroleum Producers (also)... all prior to being published for public comment. (PA-HFD-1)

The content and scope of these informal processes vary across agencies and states, with some agencies issuing draft rules only to industry interests for redline comment, while other agencies regularly hold workshops with industry and advocacy groups to seek agreement on issues of conflict prior to the issuance of draft rules. All of these various pre-draft processes are aimed at arriving at some sort of compromise agreement on the content of draft rules prior to the issuance of the draft rules:

They'll first say here's what we have to decide, here's a bunch of questions about how we should decide it, what do you guys think? And then they will put out a proposed rule and then we comment on a proposed rule. (CA-RPS-3)

We just have open dialogue about what's the best way to implement this law, what are the pros and cons of different approaches. We'll just have a meeting in our conference room and go through the bill and say what do you think this means, what's the best way to do this? (PA-RPS-1)

So we were engaged in that formal work-shopping type of process as early as 2003, 2004 and that eventually led to public drafts that were being circulated... (CA-CAFO-3)

Parties will submit revisions informally through pre-hearing conferences and formally through written comments and drafts of rules. It can take a very long time depending on the stakeholder process, but that shortens the actual rulemaking time because many of the issues have been discussed and maybe handled. (CO-HFD-1 paraphrase of un-recorded interview)

Table 2 summarizes the pre-draft rule process used in each of the cases studied here.

Attendance at pre-draft workshops may provide some parties with greater access than others, as well as greater degrees of influence over rulemaking decisions due to the centrality of draft rules in guiding future rulemaking discussions:

They develop a list of who they see is the critical interest parties, invite them in for some informal presentations, usually starting with just a big concept type of thing and that may translate down into actually drafting the rules. So by the time, the formal rulemaking starts after that . . . [there is not much room for changes to be made] (MI-RPS-3)

Despite the seemingly uneven access that the regulated community may have during these informal processes, it is not accurate to assume that all informal opportunities for stakeholders to participate in rulemaking (or meet with regulators) will lead to uneven influence among stakeholders. In fact, in some instances these informal processes can expedite rulemaking and provide opportunities for collaboration and compromise among parties:

It's more efficient and in a lot of ways more effective to have an informal process . . . [that] feeds into the formal process . . . You want to be respectful of people's time—it can be pretty resource intensive to participate in these proceedings. (CA-RPS-1)

Actually the state of Michigan did a wonderful job of convening a workgroup. We were in a workgroup with other key groups for—I don't remember how long it took—but the state did a wonderful job bringing everyone together but we worked through it. (MI-CAFO-2)

It should be that way because what it does is if you can resolve those political issues it makes the implementation go a little bit better. (PA-CAFO-1)

No, there were a lot more meetings with maybe 10 or 12 people, assorted stakeholders, where we would hash through our priorities and look at draft language and more nitty-gritty issues and that was where I think there was more input. (PA-CAFO-2)

These pre-draft processes do, however, typically involve the most direct means by which stakeholders can participate in rulemaking. Participation in such meetings is seen as key to influencing regulatory outcomes to any significant degree:

I think the biggest changes probably happened before the draft rule was publically released and then after that I'd say that the structure of the rule didn't change very much. (CA-CAFO-3)

And then when it came time, the working group, they really gave you an opportunity to put your cards on the table and listen in a very collaborative way during that process. And if you didn't get your cards out on that table at that point and if you tried to pack them into your comments afterward it was too late but definitely, the majority of the changes were made prior to putting out the rule. (MI-CAFO-2)

The pre-draft procedural aspects of rulemaking outlined above provide some actors with a greater degree of access than their opponents. However, some stakeholder relationships with

Table 2. Presence of pre-formal stakeholder processes across states and cases.

	CAFO			HFD			RPS		
	Pre-draft workshops or conferences	Meetings with stakeholder groups	Draft rules issued to specific parties ^a	Pre-draft workshops or conferences	Meetings with stakeholder groups	Draft rules issued to specific parties	Pre-draft workshops or conferences	Meetings with stakeholder groups	Draft rules issued to specific parties
California		X	X				X		X
Colorado	X	X	X		X		X		X
Michigan	X	X			X	X	X		X
North Carolina	X				In progress				X
Pennsylvania	X	X	X				X		

^aThis is distinct from normal issuance of draft rules to the public. In these cases, we analyzed whether rules were circulated to interested parties for comment or to answer specific questions prior to the broader issuance of draft rules.

regulators may have begun prior to the rulemaking process in question, specifically during previous related rulemakings. Thus, it is also useful to understand the degree to which prior relationships can influence stakeholder access during rulemaking:

H3: Industry access to participation opportunities will be more dominant in processes where the regulated industry has prior relationships with the regulatory body from past rulemaking cases.

To understand the degree to which prior relationships might influence rulemaking outcomes, we analyzed which parties get invited to participate in rulemaking during the formal and informal rulemaking processes. Across the cases studied here, parties invited to participate in both formal and pre-draft processes are those who are known to the agencies and who have previously expressed interest in the regulatory issues under consideration:

We would potentially just transfer all of the current parties into the new rulemaking. (CA-RPS-1)

And so that way they compile a list of interested parties and they let everyone know when workshops are coming up, when hearings are coming up, when briefings are due. (CA-RPS-2)

Anyone can go on to our website and . . . pick all the issues that they're interested in and they'll automatically get email notifications in the categories that they've selected. (CA-CAFO-1)

Even back before everyone was doing everything online, you'd have some emails and things like that where you'd get the word out to interested parties. And then you always have sign-in sheets for stakeholder meetings and things like that. So if there's someone new at the meeting, they write down their information. You just kind of add them to the list by default, because they're at the meeting. (NC-CAFO-1)

While the formal invitation or notice from a regulatory agency can spur participation by some actors, the relationship-building that takes place over iterative rulemakings between consistently organized interests (typically industry or NGOs) will be the most important to establishing and growing an actor's influence in subsequent rulemakings:

Because we've developed relationships over literally decades, in the end, we've always been able to resolve things in a way that was legally sufficient and politically satisfactory, so we've worked through the process and made it work and then we implemented it. (PA-CAFO-1)

While formal and informal participation are both seen as important from the viewpoint of agency personnel interviewed for this study, it is notable that interview subjects across topics and states discussed the importance of participation in pre-draft workshops and stakeholder meetings. Simply by being involved in this stage of the rulemaking process, stakeholders have the ability to influence outcomes to a degree that stakeholders involved in later stages do not. The relationships developed in prior rulemaking iterations between stakeholders and regulators, and the subsequent invitations issued by regulators to participate in such processes are, therefore, vital to understanding the influence of stakeholders in rulemaking.

Discussion: Implications for rulemaking in the states

The findings presented above address our three hypotheses: (1) that industry will participate more than other stakeholders in rulemaking, (2) industry access to rulemaking will be most pronounced in the informal pre-draft processes that agencies conduct, and (3) the prior

relationships that industry (or other organized interests) develop with regulators will help them gain access to the informal pre-draft processes seen as so important to regulatory influence over outcomes. These hypotheses were developed based on the literature and our own prior case study research.

Hypothesis 1 was partially supported by the data. First, across the cases analyzed here, industry did not uniformly provide more formal comment than other stakeholders, contradicting H1. However, while individuals submitted the majority of written comments in six of the cases studied here, it was generally organized interests that participated in the in-person hearings and the pre-draft workshops or stakeholder meetings. Additionally, in both formal and informal settings, industry has the capacity to respond to regulator needs with expertise and technical detail that citizens do not possess. Individual interests were more likely to comment about the general political issues under consideration for rulemaking rather than the specific content of the draft rules, making their comments less useful to regulators.

Hypotheses 2 further articulated the importance of these pre-draft meetings and workshops. The purpose of these sessions from the agency perspective is typically to work through contentious elements of proposed rules, ensure technical capabilities of industry to implement rules as drafted, and sometimes even to draft the initial rules. Interview subjects frequently indicated that rules changed very little after the initial issuance of the draft rules, and argued that participation in the pre-draft process was important to getting their voices heard by regulators. Industry and other organized interests participate in the process of drafting rules which are later issued to the public, which increases their influence over outcomes. Hypothesis 2, therefore, is supported by the analysis presented above.

Hypothesis 3 was also supported in this analysis, wherein stakeholders with prior relationships with regulators had greater access to rulemaking. While this study did not analyze the content of stakeholder meetings or attempt to understand informal influence among actors, the process of inviting stakeholders to participate in working groups and the reliance on past lists of interested parties makes it clear that by building relationships with regulators, interest groups and industry have a greater ability to participate and potentially influence rulemaking outcomes.

This research supports much of the scholarship on rulemaking at the federal level. In particular, while citizens may produce more of the public comments in many of the rulemaking proceedings studied here (also found by Cuellar, 2005), their comments were not as valuable to regulators due to their lack of technical expertise (similar to Wilson, 1989) and focus on broader political issues at the expense of regulatory specifics. Importantly, the pre-draft processes conducted by agencies provide agency discretion over stakeholder inclusion, often focusing on parties previously known to regulators (see Teske, 2004; West and Raso, 2013), and potentially provide avenues for influence that other less-organized interests do not enjoy (see Mendelson, 2007; West, 2004, 2009).

While citizens may participate robustly in certain cases (often spurred by advocacy groups), these same citizens and advocacy groups are typically not included in pre-draft processed held by regulatory agencies. During this pre-draft phase of rulemaking, agencies convene workshops, stakeholder meetings, and other types of consultations with stakeholders. The purpose is to design rules that address major points of conflict between stakeholders, achieve technical requirements, and are supported by industry to the extent practicable. By the time a draft rule is issued to the public, much of the work has been done by regulators and stakeholders. This may mean that significant change is difficult after draft rules are constructed because the problem has already been defined (Kingdon, 1995; Rochefort and Cobb, 1993), conflict has been addressed where possible, and agencies have invested significant time and resources in arriving at draft rules.

Based on these findings, agencies would be wise to broaden their inclusion of diverse parties in rulemaking processes, particularly in the pre-draft consultations that many agencies conduct. As discussed above, agencies have increasingly been called upon to reach out to the public and other non-industry stakeholders during rulemaking. This, to date, has been somewhat superficial, as indicated in this analysis. In order for agencies to incorporate diverse perspectives, increase buy-in and public support, and satisfy their legislative mandates for increased transparency, regulators should consider more robust public outreach rather than simply through listservs of known parties. In this age of digital and social media, this can be accomplished with little expense or effort. Additionally, it would be helpful for regulators to consider systematic guidelines for their agencies regarding which parties should be included and invited to participate. This should go beyond simply industry actors and known parties.

In this vein, it is worth noting that a handful of cases analyzed here showed significant public input during formal comment periods. Floods of citizen comment can certainly force regulators to take note of public concern, but it is curious that advocacy groups seem to focus their outreach efforts on mobilizing citizens to voice their concerns over broad political issues rather than the specifics of regulation that may govern the industrial activities in question. It may be that advocacy groups believe regulators will feel constrained by public opinion voiced in these comments, despite their relevance to the specific issues in question, or that advocacy groups are not able to mobilize citizen participation unless they focus on the political issues in question. Analyzing the advocacy strategies underlying these decisions would help scholars understand the complexities of regulatory politics to a greater extent.

The analysis presented here provides a more in-depth picture than previous work with regard to the influence that various interests can have over rulemaking. By studying cases across topics and across states, this analysis provides depth and breadth that is not common in rulemaking scholarship. However, the findings presented above are the first step in analyzing stakeholder influence. While we have argued that technical expertise, procedural access, and relationships with regulators give some stakeholders (particularly industry) greater access and influence over rulemaking, it is next necessary to analyze the rules in-depth to understand whether the perceptions of interview subjects presented above conform to the public record with regard to the changes made between draft and final rules. In other words, if stakeholders do, indeed, influence draft rules to the greatest extent through pre-draft workshops and consultations, we would expect that minimal changes would be made between draft and final rule and that there also would have been ample pre-draft consultation conducted between agency personnel and stakeholders. This next stage of research will be crucial to understanding the entirety of the rulemaking processes and connecting regulatory outcomes to the procedural evidence presented here. It would also be useful to understand, from the perspective of stakeholders, when and why they choose to engage at certain stages of the rulemaking process. This insight may help inform us about the perceived avenues of access and influence beyond what the public record indicates.

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Notes

1. In this study, and many other rulemaking studies, industry is used as a synonym for the “regulated community” and we specify whether non-regulated industry actors participate in the rulemaking in the tables below.
2. Stakeholders here are defined as “. . . local, state, and federal government officials, interest groups, nongovernmental organizations, community groups, researchers/scientists, members of the media, and target groups” (Weible, 2007).
3. Findings from one additional case – hydraulic fracturing disclosure rules in North Carolina – are not presented here because the rulemaking process is still ongoing.
4. Central Valley Regional Water Quality Control Board (2014).
5. 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 (US Department of Energy, 2014).
6. While it may be easy to assume that regulators working for agencies charged with promulgating and enforcing rules related to environmental issues are predisposed to support environmentally friendly stakeholder positions (as might be fair to assume about federal agencies such as the Environmental Protection Agency), these cases involved agencies that govern rules related to (1) oil and gas, (2) public utilities, and (3) water quality. Those agencies that govern oil and gas development and public utilities, in particular, are likely have a pro-industry bias rather than a pro-environment bias. We, therefore, expect that we will not have uniform values bias from our agency interview subjects.
7. In Michigan, CAFO rulemaking document collection involved a Freedom of Information Act Request, while other states/agencies either provided the documents electronically or for a fee to researchers.
8. Quotations from interview subjects are cited using an alpha-numeric code that identifies the state, case, and subject number. For example, the Colorado CAFO agency interview is cited as CO-CAFO-1.
9. The content of the comments was not systematically analyzed here because this study focuses on participation by stakeholders rather than the content of comment. However, interview data and public documents provided the researchers with the context of stakeholder positions on the proposed regulation in each rulemaking case analyzed here.

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