

## Public Information and Regulatory Processes: What the Public Knows and Regulators Decide

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### Abstract

*Because bureaucratic agencies may be less transparent in their decision processes than legislatures, most states have developed processes to incorporate input from regulated communities and other parties potentially affected by regulations. Administrative agencies may encourage democratic practices to increase legitimacy and accountability of the bureaucracy and improve decision-making processes. However, rules governing the regulatory process vary by state, with some incorporating more open practices than others. Understanding these dynamics is increasingly important, as the rulemaking process has become central to policymaking over the past several decades, with a large portion of policymaking authority delegated to administrative agencies. Drawing from regulatory documents, rulemaking comments, media coverage, and interviews with regulators in 14 regulatory decision processes across five states, this study finds that while states vary in their approach to providing access to information, there are overriding patterns that reduce the role of citizens and the overall transparency of regulatory processes.*

**KEY WORDS:** environment, media, public information, regulation, participation, administrative agencies

### Introduction

Debates concerning the National Security Agency's surveillance of Americans' private data, discussions concerning use of body cameras by law enforcement, and other political and regulatory debates concerning access to information all suggest the public importance of transparency of government decisions and actions. Sunshine Laws and Freedom of Information Act requirements underlie the importance of information availability regarding government actions. However, state bureaucratic agencies, tasked with developing regulations from enacted legislation, are not elected, potentially allowing them to be less transparent in their rulemaking processes. Compared to the legislative process, regulatory processes receive less media coverage, are more insular, and are influenced by different process dynamics (Hill, 1991; Potoski, 2004). As a means to increase legitimacy and accountability, most states have developed processes to incorporate input from regulated communities and other parties potentially affected by proposed regulations (Jewell & Bero, 2007). However, the rules governing the regulatory process vary by state, with some states incorporating more open democratic practices than others (Woods, 2009). As rulemaking has become increasingly important in the policy process and with much policy-making authority

delegated to administrative agencies (Kerwin & Furlong, 1992; Yackee, 2006), understanding the role and dynamics of information availability and public input becomes crucial. This holds true for rulemaking in the environmental realm, the subject of the study presented here, an area infused with scientific and technical details that legislative bodies may not have the capacity to address.

This study uses data from three regulatory decision processes (renewable energy portfolio standards [RPS], concentrated animal feeding operation regulations, and hydraulic fracturing disclosure regulations) across five states (California, Colorado, Michigan, North Carolina, and Pennsylvania) to understand whether stakeholders have access to rulemaking information and whether they choose to act on that information by participating in regulatory processes. Drawing from regulatory documents, media coverage, and interviews with regulators, this study investigates the quantity and type of information related to rulemaking processes that is available to the general public, the quantity of input into rulemaking that citizens and other stakeholders provide, and the processes used in state-level rulemaking related to public participation.

### **Stakeholder Participation in the Regulatory Process**

With an increasingly large portion of regulatory authority delegated to administrative agencies, state-level regulation has become an important topic of investigation for scholars focused on the role of stakeholder participation in government decisions (Kerwin & Furlong, 1992; Yackee, 2006). The processes that can be used to encourage stakeholder participation in creating regulations vary along a continuum where stakeholder input, deliberation, and satisfaction can be encouraged to a greater extent, and where stakeholders are often more satisfied with processes where they have greater input and opportunities for deliberation (Arnstein, 1969; Beierle, 1998; Steelman & Ascher, 1997).

By engaging the broader public in rulemaking processes, agency staff may be able to increase support of the regulations and their effectiveness (Lind & Early, 1992). In particular, cooperation in the promulgation of regulations can help avoid conflict among stakeholders, or stakeholders and regulatory agencies, and resolve difficulties with implementation of rules (Mazmanian & Kraft, 2001). Stakeholders are also less likely to free-ride or shirk their responsibilities when they are involved in the regulatory process and are satisfied with the procedural and regulatory mechanisms in place (Lind & Early, 1992; Tyler, 1994). Finally, in addition to informing regulators concerning public preferences, public participation in the regulatory process informs citizens concerning the processes and rules, often dissipating conflict that can arise from lack of understanding about regulatory or policy processes (Irvin & Stansbury, 2004; Steelman, 2001).

Despite evidence that collaboration and public participation may now be encouraged in rulemaking venues to a greater degree than it was in the past, the extent to which public and stakeholder comments influence regulatory outcomes is still debated in the regulatory literature (Yackee, 2013). Studies of regulatory processes frequently assess the role of public comment in rulemaking decisions, including input from organized interests and other stakeholders (Jewell & Bero, 2007; Woods, 2009). While organized interests—and particularly regulated communities

(Cheit, 1990; Golden, 1998; Montini, Mangurian, & Bero, 2002)—have been shown to submit the greatest number of comments in federal rulemaking processes, it is less clear the level of influence these comments have on regulatory decisions (Cropper, Evans, Berardi, Dulca-Soares, & Portney, 1992; Golden, 1998; Nixon, Howard, & DeWitt, 2002). In other cases, scholars argue that citizens can at times effectively influence rulemaking decisions (Cuellar, 2005; Layzer, 2012), providing the majority of input during formal comment periods (Cuellar, 2005).

Beyond input from stakeholders and the public that may influence rulemaking, agency processes, discretion, and resources may influence regulatory outcomes (Teske, 2004). Rinfret, Cook, and Pautz (2014) argue that state agencies are one type of “gatekeeper,” in addition to the governor and potentially the state legislature that may influence when, how, and to what extent various stakeholder groups are involved in the rulemaking processes. State-level studies suggest that such agencies have significant discretion during the regulatory process (Crow, Albright, & Koebele, 2015). Woods (2009) examined how agency directors perceive the influence that various actors (e.g., interest groups, legislatures, public) have on rulemaking processes and found that the stronger the participatory mechanisms established in a state, the greater the perceived influence of a diversity of actors in the rulemaking process.

Although much public policy and regulatory research have focused on stakeholder influence, this study focuses on stakeholder access to both regulatory processes and information about rulemaking. We argue that both of these would be required for nonregulated citizen stakeholders to become involved in rulemaking processes and certainly in order for them to influence outcomes. Related to this, informal and formal procedures that govern rulemaking may also influence or constrain the actions of agencies and the corollary rulemaking outcomes (Crow et al., 2015; Shapiro & Borie-Holtz, 2013). Informal processes including stakeholder workshops and meetings may take place before draft rules are issued to the public (Crow et al., 2015; West, 2004, 2009; Yackee, 2012). Scholars argue that it is during these informal processes that the policymaking agenda for the rulemaking process is determined (Rinfret & Furlong, 2012), thereby potentially diminishing stakeholder inclusion, decision-making transparency, and standardization of the rulemaking process (Mendelson, 2007; West, 2004, 2009). While stakeholders may be invited to participate in some of these informal processes, other “deal-making” meetings may not include the complete gamut of involved stakeholders (Rinfret et al., 2014). Often *ad hoc* in nature, agency discretion is a key to these informal processes where stakeholders are often included by invitation from regulatory staff to craft ideas and language that influence the draft and final rules (Mendelson, 2007; West, 2004, 2009).

### **Public Access to Information and Participation in Rulemaking**

Arnold (1990) describes the policymaking process as bifurcated, with some issues being debated and decided in a highly visible arena where decision makers are constrained by constituent desires, while other issues are debated virtually behind closed doors, with little media attention and even less public interest. For many regulatory issues, the rulemaking process may be very much like this second, less visible, policy process due, in part, to the negotiations held between agencies and

interested parties described above. In these instances, without deliberate attempts to engage the public, it may only be the regulated community and highly engaged stakeholders with the capacity to participate in rulemaking that actually do so.

The most common participation mechanism in both legislative and regulatory venues is to hold public hearings. Hearings, however, are criticized for their limitations in providing meaningful participation for citizens (Cox, 2010). Other participatory mechanisms may work to invoke the “local knowledge” that citizens possess, which can help construct more effective, responsive, and legitimate policies, particularly in the environmental sector where environmental observation and monitoring can be crucial to effective regulation (Fischer, 2005); however, such mechanisms may be used less frequently or consistently.

Furthermore, the capacity of citizens to effectively engage in policy debates is also called into question frequently by scholars (see Delli Carpini & Keeter, 1996, for example). Citizens simply cannot compete with industry or advocacy professionals when it comes to policy or technical capacity (Dryzek & Torgerson, 1993). While a few active and knowledgeable citizens may possess the resources to engage with material available on government websites or scientific databases to participate in rulemaking processes, most citizens are not routinely engaged in public affairs (and much less, regulatory issues) (Zaller, 1992). The majority of Americans still get their daily news from mainstream, traditional media sources such as television, radio, and newspapers (Pew Research Center for the People and the Press, 2012), and are unlikely to seek out information on rulemaking unless it directly affects their livelihood or well-being. However, studies indicate that some of the public is indeed willing to engage with these processes when presented with the opportunity (Busenberg, 2000; Koontz & Johnson, 2004). To access information related to rulemaking, citizens would either need to be actively engaged by agencies through outreach mechanisms, or they would need access to rulemaking information through mainstream media sources where citizens are most likely to encounter such information.

In response to these issues, this study analyzes the following question: *To what extent is information on rulemaking processes available to the public, and does the public decide to participate in those processes about which they have information?* To understand public participation in rulemaking processes across states, it is necessary, according to the literature outlined above, to understand several variables: (1) the method of outreach agencies use to engage stakeholders, including citizens; (2) the availability of information for citizens to learn about rulemaking processes, which primarily comes from media sources; (3) the input received from various stakeholders in the rulemaking process; and (4) the presence of any informal processes that may exclude citizens (either intentionally or simply by inviting “known” parties to participate).

### **Regulatory Case Study Topics**

The following regulatory cases were studied across the five states included in this analysis. In addition to being geographically distributed, these cases were chosen for analysis based on three primary factors: (1) presence of rulemaking related to the topic being conducted in the five states included in this study, which were

chosen based on variation in transparency of governance (described further in the Research Methods section below); (2) focus relevant to environmental or natural resource regulation to maintain some degree of comparability based on the expected role of science or technical information to craft and support rules, and presence of stakeholder groups as advocates for the public interest<sup>1</sup>; and (3) variability in regulatory agency jurisdiction.

### ***Concentrated Animal Feeding Operations Standards***

Concentrated Animal Feeding Operations (CAFOs), sometimes called “factory farms,” are a significant contributor to water pollution problems in many U.S. states. The runoff from such operations can lead to excess nutrients in water bodies and human health risks (Steeves, 2002). In 2003 (revised in 2008), the Environmental Protection Agency (EPA) expanded federal guidelines under which states were required to promulgate state-specific regulations concerning CAFOs and pollutant discharge into water bodies (Environmental Protection Agency, 2008). Prior to this, all states in this study were already regulating CAFOs, although it was a much higher profile issue in some states such as North Carolina than it was in others. Under the EPA guidelines, each state is allowed to promulgate regulations specific to the needs of the state, industry, and 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 1,500 dairies are located,<sup>2</sup> which outnumbers many other states’ entire dairy industries.

### ***Renewable Energy Portfolio Standards***

A majority of U.S. states have adopted requirements that specify what proportion of energy must be produced from renewable sources by a given date to encourage renewable energy use and reduce reliance on fossil fuels (U.S. Department of Energy [USDOE], 2012). The states chosen for this study have adopted a renewable energy portfolio standard requirement (RPS), but they vary by stringency of requirement and timeframe.<sup>3</sup> Unlike the other states in our sample that initiated RPSs through legislative action, Colorado adopted its original RPS through citizen initiative, although subsequent RPS increases were passed in the legislature.

### ***Hydraulic Fracturing Disclosure Rules***

Hydraulic fracturing uses water and chemical mixtures which are injected into wellbores to extract natural gas (Davis, 2012). Citizens and environmental groups in some states are highly concerned about the potential environmental and public health risks associated with possible chemical contamination of nearby aquifers and the use of large quantities of water to extract the gas (Davis, 2012). In response, state governments have begun to enter into regulatory rulemaking processes to address disclosure of the chemicals used in hydraulic fracturing operations. California,<sup>4</sup> Colorado, Michigan, and Pennsylvania have promulgated regulations in response to hydraulic fracturing issues in their states (ProPublica, 2012), while

North Carolina's legislature approved hydraulic fracturing and is currently proceeding with rulemaking (National Conference of State Legislatures, 2012).

## **Research Methods**

This study analyzed the variables presented in the literature section using a comparative case study research design. In-depth case studies on the three regulatory topics outlined above were conducted in five states ( $n = 14$ )<sup>5</sup> to understand the complex phenomena of rulemaking in their real-world setting, using multiple sources of data as recommended by Yin (2003). 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](http://www.stateintegrity.org)) government corruption index, as well as variation on the economic importance in each state of the regulated industries involved in the rulemaking cases analyzed here. When multiple iterations of rulemaking took place within a state, the first instance of rulemaking was studied for this analysis.

### ***Data Collection and Analysis***

Data were gathered from four sources for this comparative case analysis: (1) regulatory documents, (2) rulemaking comments, (3) media coverage, and (4) interviews with staff from regulatory agencies in charge of the rulemaking processes under analysis. The regulatory documents related to rulemaking processes were gathered from regulatory agencies,<sup>6</sup> including draft and final regulations, all public comments, formal statements, and any supporting documentation agencies used and made publicly available. Media coverage was collected from the statewide newspaper(s) or major regional papers within each state. Search terms and dates of inclusion are detailed in Appendix A. Finally, semistructured interviews were conducted according to procedures outlined by Rubin and Rubin (2005). Interviews were conducted with staff from regulatory agencies, interviewing those directly involved in the cases studied here when possible.<sup>7</sup> Information provided in interviews was cross-referenced with regulatory documents when possible to confirm statements made by subjects, particularly where they related to timelines or the rulemaking process.

### ***Data Coding and Analysis***

Documents were coded using three methods. First, public documents were analyzed for important dates, actors, and events that took place during rulemaking. Second, formal comments were coded and counted to understand the categories of actors that submitted the comments. Finally, media data were numerically coded using the codebook detailed in Appendix B and subsequently analyzed focusing on three variables for this study: (1) topical focus of the article, (2) date of publication as it related to the issuance of draft rules by regulatory agencies in each case, and (3) the state where the rulemaking and media publication took place.

A constant comparative approach was used to code interview data using 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 & Huberman, 1994). Codes for analysis were created from the literature, focusing specifically on variables such as agency outreach, stakeholder input, and dynamics of the rulemaking process. By breaking down the data into their basic concepts and frames, it was possible to detect patterns in the data and determine the type and extent of agency outreach to stakeholders beyond the regulated communities, the perceptions of input received by the agency, and the presence of any informal or preprocess meetings that might marginalize or encourage citizen participation.

Case summaries and timelines were created for each case based on the public documents and interview data. A cross-case analysis was then used to determine common patterns across cases to form the basis of research findings presented below (Bourgeois & Eisenhardt, 1988; Eisenhardt, 1989; Miles & Huberman, 1994).

### **Research Findings: What the Public Knows and What Regulators Decide**

This research investigated the question: *To what extent is information on rulemaking processes available to the public, and does the public decide to participate in those processes about which they have information?* As detailed above, to examine public participation in rulemaking processes, it is necessary to understand: (1) the method of outreach agencies use to engage stakeholders, (2) the availability of information for citizens to learn about rulemaking processes, (3) the input received from various stakeholders in the rulemaking process, and (4) the presence of any informal processes that may serve to marginalize citizen input.

First, it should be acknowledged that outreach to the regulated community and other organized stakeholders are expected and necessary for efficient rulemaking. While this is true, the focus of this analysis is on whether agencies *also* conduct outreach that encourages citizens to become involved in rulemaking processes. When asked about the method of outreach and the stakeholders that are the focus of such outreach, regulators in every case under analysis focused on their outreach to previously known parties from the regulated community and environmental organizations. Such known parties are primarily those who have participated in other rulemakings on similar topics in the past.<sup>8</sup> They are contacted through similar means from each agency studied here—electronic listservs:

So we have over 500 people on our service list. In the public process that happens within the rulemaking ... any parties filing comments in response to either of those processes, they [documents] get served publicly on all of those parties that have expressed interest. (CA-RPS-01)

And people who are interested in rulemakings at the commission can sign up to be on a listserv. As far as the renewable energy rules, it did require in 2005 to figure out who was maybe interested that hadn't participated before. But fortunately, we had other dockets where stakeholders who wanted renewables ... were known to us. (CO-RPS-01)

We watched stakeholder groups and we have that big list of organizations we contact to see if they want to be involved, how much, do they want to come to meetings ... whatever. (MI-CAFO-01)

The department in general tries to maintain lists of interested parties on certain topics. You know, even back before everyone was doing everything online ... you'd get the

word out to interested parties. And then you always have, you know, sign-in sheets for stakeholder meetings and things like that. (NC-CAFO-01)

Regulators who assessed their agency's public outreach described it as lacking in its ability to reach citizens who are not involved in organized stakeholder groups.

The PUC does an absolutely abysmal job of reaching out to the public. They would just as soon fly under the radar as much as possible, and I think that if I had any criticism of them that would be my number one criticism, at the top of the list. (CO-RPS-03)

I'm pretty sure that we don't do enough to get the word out ... there's 12 million people in Pennsylvania and ... so we're not necessarily going to hit everybody. (PA-CAFO-01)

In some instances, citizens are seen as represented by other organizations or by the regulatory commissioners themselves, which may explain the lack of agency effort to reach individual citizens:

Citizen input generally influences the commissioner in their exercise of discretion is what we say officially. It's like, use your common sense commissioners. Look out for us, don't let this go out of hand. That kind of thing. (CO-RPS-01)

While all agencies perform their expected minimal functions of publicizing rule-making in their state regulatory registers, the data from interviews suggest that agencies are not focused on providing information to encourage public participation in rulemaking. Media coverage is therefore an effective proxy measure for the availability of information to the public. In Figures 1–3, media coverage is analyzed over time as it relates to the issuance of draft rules in each regulatory case studied here. As shown in the figures, when the rulemaking process garners media coverage, it is usually at low levels compared with media coverage of legislation or broader issue coverage.

Surprisingly, when compared with the level of stakeholder comment provided during the rulemaking processes (Table 1), there is no relationship between the availability of information that is specific to rulemaking process and the level of citizen input, as measured by number of citizen comments.

In fact, it appears that the publication of news stories related to the broader issue in question (animal waste pollution, renewable energy, or hydraulic fracturing) or the political processes are associated with higher levels of citizen input during rulemaking, as was the case in the RPS in Colorado, the CAFO standards in North Carolina, and the hydraulic fracturing rules in California. Of all the CAFO cases examined, the media covered the issues (rather than the regulatory process) surrounding North Carolina CAFOs most frequently, and NC agencies received the largest number of public comments. The same holds true for RPS in Colorado: the news media covered Colorado's ballot initiative and legislative processes most intensely of the states analyzed here, and Colorado collected the greatest amount of RPS public comments during rulemaking. Importantly, much of the media coverage on rulemaking takes place as final rules are issued rather than as the rulemaking process is initiated.

Regulators describe the rulemaking process as unable to attract media attention because of its technical nature, regardless of agency efforts:

I think partly that's because it's not nearly as exciting as the legislative hearings where there's, where the reporter's already there. (CO-RPS-01)



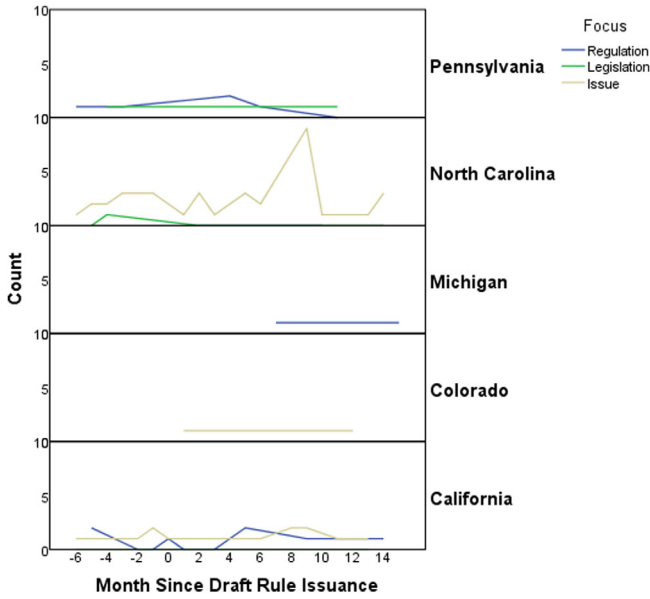


Figure 1. Media Coverage by Topic Over Time—Concentrated Animal Feeding Operation Standards

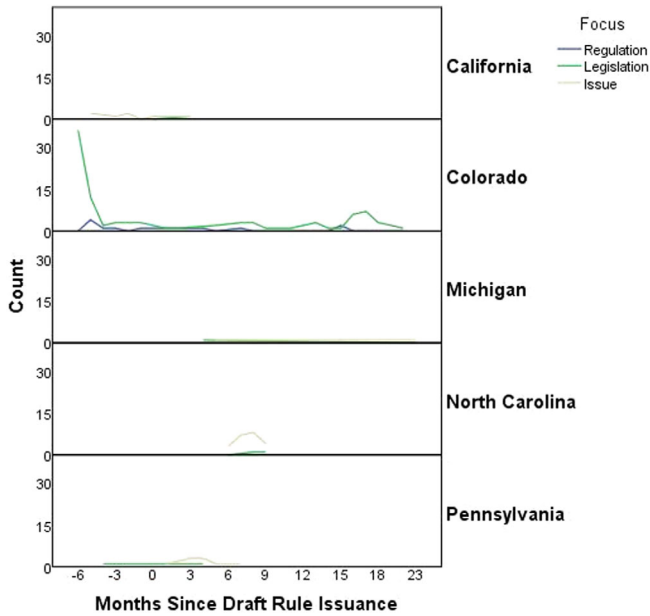
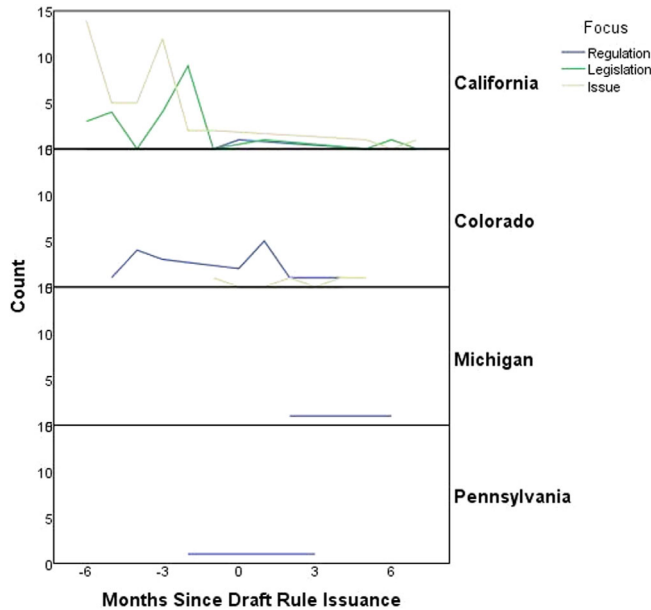


Figure 2. Media Coverage by Topic Over Time—Renewable Portfolio Standard

There wasn't a lot of media coverage for CAFO rules. Something that might impact a lot more people, say some significant new air quality rule, they're gonna make a lot of factories change what they do or something like that where a lot of people are employed, that probably would get a lot more press. (MI-CAFO-01)

I was I guess a little surprised at the time but on the other hand, when the reporters looked at the filings, they were lengthy and very technical and I think from a reporter's perspective, there wasn't generally anything that would stand out as being especially newsworthy. (NC-RPS-02)



**Figure 3.** Media Coverage by Topic Over Time—Hydraulic Fracturing Disclosure

Regardless of the levels of media information on rulemaking available to citizens, and the level of citizen input received by regulators, the public comments received may be minimally influential on regulatory decisions. This is especially true in cases where much of the input is submitted in the form of form letters (see notes to Table 1). The value of these types of comments to regulators is likely questionable.

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-01)

Indeed, form letters from cases in Pennsylvania and California provide examples of such public comment. In Pennsylvania during CAFO rulemaking, 29 form letters included the statement "I oppose factory farms and CAFOs," and only 17 of these included any further text (between 1 and 3 lines). In California's hydraulic fracturing disclosure rulemaking, 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 similarly of questionable use to regulators attempting to follow legislative mandate to pass disclosure regulations. These findings support previous work on the role of mass e-mail form letters in public comment—that they are often "low-quality, redundant, and generally insubstantial" (Shulman, 2009).

Finally, to understand what information was available to citizens and what resulting citizen participation occurred, it is also helpful to understand the informal processes that agencies undertake where citizens may be further marginalized. Informal processes often occur prior to formal notification of draft rules and may involve a limited number of stakeholders (Table 2).

**Table 1.** Stakeholder Comment by Case

Case	Citizens or Individual Business	Industry or Trade Group <sup>a</sup>	Environmental Advocacy Group	Other	Total
<i>CAFO</i>					
California	1	16	24	14	55
Colorado	0	46	0	0	46
Michigan	14	17	5	1	37 <sup>b</sup>
North Carolina	221	36	23	9	289 <sup>c</sup>
Pennsylvania	127	11	13	5	156 <sup>d</sup>
Total CAFO documents	363	126	65	29	583
<i>Renewable portfolio</i>					
California	0	51	32	0	83
Colorado	535	49	7	11	602 <sup>e</sup>
Michigan	1	24	6	3	34 <sup>f</sup>
North Carolina	1	32	9	6	48
Pennsylvania	1	28	10	3	42
Total RPS documents	538	184	64	23	809
<i>Hydraulic fracturing</i>					
California	171,099	18	97	10	171,224 <sup>g</sup>
Colorado	198	18	27	13	256
Michigan	38	7	10	1	56 <sup>h</sup>
Pennsylvania	2,098	12	61	3	2,174 <sup>i</sup>
Total HFD documents	173,433	55	195	27	173,710

<sup>a</sup>In the RPS case, industry and trade groups include both the traditional utilities ( $n = 94$  for all cases), the renewable energy industry ( $n = 58$  for all cases), companies with mixed energy portfolios ( $n = 10$  for all cases), and other nonproducer industrial interests ( $n = 14$  for all cases).

<sup>b</sup>Includes 24 form letters submitted during public comment period.

<sup>c</sup>Includes 230 form letters submitted during public comment period.

<sup>d</sup>Includes 114 form letters submitted during public comment period.

<sup>e</sup>Includes 491 form letters submitted during public comment period.

<sup>f</sup>Includes 2 form letters submitted during public comment period.

<sup>g</sup>Includes 126,282 form letters submitted during public comment period.

<sup>h</sup>Includes 4 form letters and 3 with multiple signatories submitted during public comment period.

<sup>i</sup>Includes 1,853 form letters submitted during public comment period.

In all of these cases, citizens would have been allowed to attend the workshops or stakeholder meetings. However, without the outreach necessary to inform citizens of the process or the importance of the issues, their attendance and participation is unlikely. Further, as several regulators acknowledged, even when citizens may be interested, they may not have the capacity to participate:

I honestly don't think you could just take your average person and they would instantly be able to pick this stuff up. (CA-CAFO-01)

Getting the non-regulated community, public input, has always been a challenge and remains a challenge. Finding people that have the knowledge and the time and the ability to participate. (CO-CAFO-01)

Even in the highly controversial case of hydraulic fracturing in Pennsylvania, public comment was minimal during prerulemaking hearings:

And what we did with this rule though is we published an advanced notice of the proposed rulemaking. So our plan was to have two rounds of public comment on the regulation. We received ... less than 100 comments, less than 100 individuals commented on the rule. One of the more significant comments we got came from a petroleum engineer who was hired by EarthJustice to comment on the rule. And I highlight that because it was the first time I could recall an organization employing someone who had very credible experience to comment on a technical rule. (PA-HFD-01)

**Table 2.** Presence of Preformal Stakeholder Processes Across States and Cases

	CAFO	RPS	HFD	Relevant Quotations
California	Working draft rules released to interested parties, then meetings were held with interested parties on all sides of the issue.	Prehearing conferences held with invited parties, then agency issued draft rules.	Prerulemaking draft rules circulated to interested parties; Emergency Rulemaking Notice issued after rulemaking began, involving 5 days of public comment on interim rules.	"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-01)
Colorado	Work group sessions held prior to issuance of draft rules, which worked through major issues.	Informal "open forum" workshops held prior to the issuance of draft rules, then industry sectors negotiated consensus rules.	Hearing held 1 month prior to the issuance of draft rules, and prehearing conference held before formal hearing; no list of parties available.	"In general, the Commission . . . has really pressed to have a significant stakeholder process before we get to the formal rulemaking process." (CO-CAFO-01)
Michigan	Several meetings held with stakeholder groups to provide input on draft rules.	After legislation passed, staff conducted numerous meetings with utility providers and other interested parties. <sup>a</sup>	Trade association and environmental groups were involved during drafting of rules.	" . . . you know maybe some kind of draft rules for a point of discussion and then got the stakeholder groups involved to get their input and comments." (MI-CAFO-1)
North Carolina	Multiparty stakeholder processes held during rulemaking process.	Major utilities were invited to answer a series of open-ended questions prior to draft rule formation.	In progress	"DWQ did conduct multiple stakeholder processes for development of the initial set of regulations. . . I guess you would call it negotiated rulemaking. They referred to it as a stakeholder process. . ." (NC-CAFO-02)
Pennsylvania	CAFOs workgroup met to understand new federal regulations and develop new program for PA.	Technical conference held as a pre-rulemaking open meeting, followed by working groups.	Advanced notice of rulemaking informal stakeholder process held prior to issuance of draft rules.	"We met separately with the Pennsylvania independent petroleum producers (also) . . . all prior to being published for public comment." (PA-HFD-01)

<sup>a</sup>A significant stakeholder process was held during legislative debate on the Michigan RPS, so stakeholders may have been less involved due to perceptions that their input had already been heard, or because of participatory fatigue.

It is important to note that these informal prehearing processes are not entirely negative. While they may potentially marginalize citizen input, they also may help make the rulemaking process more efficient and less conflict-laden, as was seen in the Colorado hydraulic fracturing disclosure rules. In this case, the agency convened stakeholder meetings wherein industry and environmental advocacy groups sat down to negotiate the major points of contention during the final days of rulemaking (particularly the exemption of chemical disclosure under trade secrets) and arrived at a compromise that proponents argue is the nation's toughest disclosure law:

[The agency] was surprised in a good way at how stakeholders worked together to find points of consensus. (Paraphrase CO-HFD-1)

### **Discussion: Citizen Participation in Rulemaking**

Here, we analyzed the following question: To what extent is information on rulemaking processes available to the public, and does the public decide to participate in those processes about which they have information? We assessed (1) the method of outreach agencies use to engage stakeholders, (2) the availability of information for citizens to learn about rulemaking processes, (3) the input received from various stakeholders in the rulemaking process, and (4) the presence of any informal processes that may serve to marginalize citizen input.

With regard to (1), regulators do not focus their outreach efforts and attention on informing the public or maximizing citizen comment. In fact, regulators typically use listserv mechanisms to contact previously known or interested parties (or they may use opt-in lists). Citizens would, therefore, need to be highly interested and informed to opt-in, or have participated in past rulemaking proceedings to be included on such lists. This finding is somewhat surprising, given the focus on government transparency and citizen right-to-know laws across U.S. states. While citizens may be less capable of participating in highly technical rulemaking proceedings, as described above, their interests are vital for regulators to consider in their decision processes. While interview subjects in this study indicated that there were assumptions by regulatory agencies that either advocacy groups or appointed public officials are expected to advocate for citizen interests, this is likely impractical and unlikely. Advocacy groups are unlikely to represent all important citizen perspectives during the rulemaking process, instead focusing on the most politically expedient or strategically effective arguments for a given case (see Sabatier & Jenkins-Smith, 1999, for example). Similarly, agency commissions are typically appointed by elected officials and therefore are more likely to represent partisan priorities than general citizen interests.

Our analysis of (2) indicates that the most digestible source of information, news media, is minimally available in most regulatory cases, unless there is significant political or issue focus in news coverage. While there is often information available in more niche and technical sources such as agency websites and listservs, these are unlikely to be frequently used by the public. Rather, citizens depend on news media (and increasingly on social media and other accessible channels) for the majority of their information related to public affairs. Agencies should be increasingly focused on providing information through these free, accessible, and easy-to-use media to

ensure that citizens have access to information. While this will not guarantee substantive citizen participation, we can be virtually assured that without information, citizens cannot participate in rulemaking processes.

The news coverage of rulemaking is most clearly associated with higher levels of citizen participation (3) in rulemaking when media focus on the broader issue or political debates rather than the specifics of rulemaking.<sup>9</sup> We expect relatively low levels of citizen participation across rulemaking cases due to the complexity of the process and lack of readily available information as described immediately above. However, it is interesting to see participation in rulemaking peak during cases in which media are less focused on the rulemaking and more focused on the issue or political debates. This is counterintuitive in that despite lack of information about rulemaking details, citizens find a way to participate when they care about the subject under discussion. Worth noting, many of the public comments in cases such as the California hydraulic fracturing case or the Pennsylvania CAFO case were form letters. Form letters, by their nature, are written by a third party and circulated to citizens to increase participation in rulemaking and reduce the participation burden on citizens. The role of advocacy groups in facilitating public participation through form letter campaigns is potentially important and an area of future inquiry related to state-level rulemaking. It is worth acknowledging, however, that cases where these form letters were submitted to regulators were more likely those that involved political controversy and those where form letters tended to focus on political statements or general statements concerning the broader issue rather than technical details of the rulemaking. So, while advocacy groups appear to focus attention on aiding public participation through form letter writing, it is unlikely that these advocacy strategies are effective at influencing rulemaking outcomes in most cases.

Finally, the informal processes (4) that many agencies use to work with stakeholders and mitigate conflict prior to formal rulemaking may work to marginalize citizen influence even when public participation is present. Because much of the difficult negotiation of rulemaking may take place prior to the issuance of draft rules, and because organized stakeholders are invited to those meetings to ensure efficiency and reduce conflict (although stakeholder goals may be different from agency goals, and are likely focused on promoting their individual agendas), the input from citizens during later formal comment periods might prove less important to regulatory decision makers who have already worked with organized stakeholders to reach consensus on specific aspects of the rulemaking.

When analyzed according to the relative economic importance of the regulated industry to a state (one of our criteria for variation across states in this study), issue topic, or transparency ratings of the state government as a whole in each state, there are no patterns that predict citizen participation or level of outreach and media coverage. For example, in North Carolina and California, we would expect higher levels of CAFO industry participation or influence due to the importance of the dairy and hog industries. We do not, however, see any indication based on formal public comments or types of informal stakeholder consultations that industry played a more central role in these cases than they did in others. On the contrary, in Colorado where the agricultural industry has seen economic decreases in recent decades, there appeared to be a more insular outreach and stakeholder consultation process in place. Similarly, there do not appear to be consistent patterns of participation or information availability



across rulemaking topics. In Colorado where a ballot initiative instituted the RPS, there was ample public participation, but in California where one might expect renewable energy to be politically important, there was not. Even in the case of hydraulic fracturing, where contentious debate has been seen across the country, Michigan saw minimally more participation and insignificant levels of media coverage.

Finally, because variation in government transparency was one of our selection criteria (states in this study ranked most to least transparent: CA, NC, PA, CO, MI), it is useful to know whether there were differences in outreach, process, or participation across states. Scholars have confirmed the expectation that greater participation is positively associated with increased transparency (whereas greater transparency does not simply lead to greater participation), but also argue that agencies may strategically employ different opportunities for transparency and public participation due to circumstantial factors such as the politicization of the issue at hand (Welch, 2012). In our data, there do not appear to be consistent patterns in transparency and public participation across states. While California saw huge public participation in the hydraulic fracturing case, it saw far less participation in CAFO regulation and RPS rule creation. In Colorado, where we might see far less transparency overall based on the state's transparency score, participation in RPS and hydraulic fracturing rulemakings were higher than in other states such as North Carolina and Pennsylvania. These findings regarding lack of influence by economic importance of the industry, topical focus, or state transparency, all help validate the findings presented above as being the most significant cross-case findings from this study. It appears that political or issue-focused public discussion, informal processes involving known stakeholders, and minimal public outreach are more important to understanding the degree of public participation seen in rulemaking processes.

The findings presented above exemplify a struggle that regulators likely face in many cases. Regulators are tasked with producing rules in an efficient manner, and therefore their time and effort are likely to be spent working with organized stakeholders, including the regulated community. When citizens do become involved, it may be through minimal participatory means such as form letters that provide little new or substantive information to regulators and may actually place further burden on regulators' limited time and resources (Shulman, 2009). Extensive public participation through these means may, in part, be due to a lack of time, knowledge, technical skills, and other individual resources with which to engage more substantially in rulemaking. These findings are important to our understanding of regulatory processes and citizen input. While studies have occasionally shown that citizens can be influential in rulemaking (Cuellar, 2005), others question the effect of comments on regulatory outcomes (Cropper et al., 1992; Golden, 1998; Nixon et al., 2002). This study indicates that understanding the content of citizen input, the availability of public information, and the presence of informal processes are all key to understanding if and when public participation in rulemaking influences regulatory decisions.

## Conclusions

The role of public participation in rulemaking is a complex one. This study analyzed the information available to the public, the level of public comment, and the

presence of informal rulemaking processes that may serve to marginalize public input across three regulatory topics in five states. The findings presented here answer the question posed above: *To what extent is information on rulemaking processes available to the public, and does the public decide to participate in those processes about which they have information?* We find that information is not easily accessible in public venues (such as the media sources analyzed here) and is available primarily when there are broader public debates concerning the political issues surrounding the regulatory topic. We also find that public involvement (measured by public comment) in rulemaking is only associated with information availability when that information pertains to political issues rather than rulemaking itself, which is a counterintuitive finding and one that should be explored further.

While some of the cases presented here did garner extensive public comment, Shapiro and Borie-Holtz (2013) found in their studies that only a few regulations that received public comment were significantly altered in response to public comment. Public comment in state regulatory processes varies (Shapiro & Borie-Holtz, 2013), but these comments may only influence regulatory outcomes to a minimal extent. The content and amount of input received during the rulemaking process, the dynamics among and within interest groups (Furlong, 1997; Golden, 1998), and the timing and preformal rulemaking processes (Crow et al., 2015) may all influence regulatory outcomes.

In future research, investigators will want to examine the extent to which rules changed from draft to final rule, compared with the data presented here related to stakeholder participation and the presence of preformal stakeholder processes. This will give a more complete picture of the extent to which citizen input led to changes in rules, compared to the input provided by the regulated community and other stakeholders. Additionally, as indicated above, the strategies used by advocacy groups to encourage citizen participation may include mass letter-writing campaigns focused on political issues. Future studies analyzing these strategies and their effectiveness in influencing rulemaking processes and outcomes would be useful both to advocates and scholars seeking to understand the influence of various categories of stakeholders during rulemaking.

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## Notes

- 1 It would be useful in future studies to expand this analysis to determine whether the results found here are applicable to cases outside of environmental regulation.
- 2 Central Valley Regional Water Quality Control Board. (2014). State of California Environmental Protection Agency. Retrieved from [http://www.waterboards.ca.gov/centralvalley/water\\_issues/dairies/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/dairies/index.shtml)
- 3 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, 2012).
- 4 California's rulemaking produced interim rules; the permanent rules were still in progress when this study was conducted.

- 5 One additional case, hydraulic fracturing disclosure rules in North Carolina, was not included in this analysis because rulemaking is still in progress.
- 6 In Michigan, CAFO rulemaking document collection required a Freedom of Information Act Request, while other states/agencies either provided the documents electronically for free or for a fee to researchers.
- 7 Quotations from interview subjects are cited using an alphanumeric code that identifies the state, case, and subject number. For example, the Colorado CAFO agency interview may be cited as CO-CAFO-1.
- 8 In some cases this also involved stakeholders who had been instrumental in legislative lobbying or negotiations prior to the initiation of rulemaking.
- 9 Of course, this connection does not argue causality. There could be other dynamics at work in these issues that bring higher levels of both media attention and citizen participation (i.e., public health risks, issues of local importance, and so forth.)
- 10 The Rocky Mountain News closed in 2009 so articles are only included prior to this date.

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## **Appendix A: Media Collection Guidelines by Case Newspapers for Inclusion**

*California*—LA Times, San Francisco Chronicle, Sacramento Bee, San Diego Union-Tribune

*Colorado*—Denver Post, Rocky Mountain News (pre-2009 dates only),<sup>10</sup> Colorado Springs Gazette

*Michigan*—Detroit News & Free Press

*North Carolina*—Raleigh News & Observer, Charlotte Observer

*Pennsylvania*—Philadelphia Inquirer, Pittsburgh Post-Gazette

### **Renewable Portfolio Standards**

*Date Range*—

- CA: August 2002—September 2004
- CO: November 2003—December 2006
- MI: October 2008—July 2014
- NC: January 2007—December 2008
- PA: September 2004—October 2005

*Search Terms*—Renewable Portfolio Standards, Renewable Energy Standards

### **Discharge Regulations for CAFOs**

*Date Range*—

- CA: September 2005—May 2007 (\*\* Fresno Bee added to this search due to the regional rulemaking conducted in California)
- CO: January 2000—April 2005

- MI: February 2003—August 2005
- NC: January 1993—January 2009
- PA: February 2003—August 2005

*Search Terms*—CAFO, Concentrated Animal Feeding Operation, nutrient pollution, nutrient discharge, hog or dairy waste, factory farms AND regulation

### ***Hydraulic Fracturing Disclosure Regulations***

*Date Range*—

- CA: May 2013—July 2014
- CO: January 2011—April 2012
- MI: January 2011—July 2014
- PA: November 2009—November 2010

*Search Terms*—Fracking disclosure, hydraulic fracturing disclosure, fracking fluid disclosure, fracking chemical disclosure

## **Appendix B: Codebook for Regulatory Media Coding Instructions**

Code all items for each document before moving to the next document.

### **Basic Document Information**

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#### **Q1. Document focus**

- |   |                                  |
|---|----------------------------------|
| 1 | Regulation                       |
| 2 | Legislation or ballot initiative |
| 3 | Broader issue                    |

#### **Q2. Date of document publication (month and year)**

#### **Q3. Publisher (name of newspaper)**

#### **Q4. Document Type (check one)**

- |   |  |
|---|--|
| 1 | News article                           |
| 2 | Other (column, opinion, and so forth.) |

#### **Document/coder**

- |  |   |
|--|---|
|  | Q5. Date document retrieved   |
|  | Q6. Coder initials  |
|  | Q7. Title of document   |
|  | Q8. Document author   |
|  | Q9. Number of words (Do not include headlines, captions, and so forth.) |
-