Article

Administration & Society
1–28

DOI: 10.1177/0095399715581040
aas.sagepub.com
SAGE

Evaluating Informational Inputs in Rulemaking Processes: A Cross-Case Analysis

Deserai A. Crow[1], Elizabeth A. Albright[2], and Elizabeth Koebele[1]

Abstract

As legislative venues are increasingly stymied by gridlock, much policymaking responsibility has devolved to the U.S. states. This article analyzes informational inputs and participation by actors within the rulemaking context, focusing on the level of state rulemaking. Specifically, we explore the rulemaking process in Colorado and North Carolina in two environmental sectors. Using data from documents and in-depth interviews, this study finds that goals of deliberative and open regulatory processes are not met in the cases studied here, in part due to informal pre-hearing processes established by agencies which can be navigated most successfully by the regulated community.

Keywords

regulation, rulemaking processes, stakeholder participation, information

Individuals working in a coordinated manner and the information that they use and disseminate are important contributors and influences to policy change (Healy & Ascher, 1995; Korfmacher & Koontz, 2003; Sabatier &

[1]University of Colorado Boulder, USA
[2]Duke University, Durham, NC, USA

Corresponding Author:
Deserai A. Crow, Environmental Studies Program, University of Colorado Boulder, 1333 Grandview Ave., UCB 488, Boulder, CO 80309, USA.
Email: deserai.crow@colorado.edu

Jenkins-Smith, 1993). Although much of the policy process literature focuses on the U.S. federal-level legislative process, we know that regulatory processes can be similarly important to policy change, but that regulatory processes are more insular, less prone to media coverage, and can be influenced by different process dynamics (Hill, 1991; Potoski, 2004). Less frequently has the influence of informational inputs and stakeholders been studied in state-level rulemaking processes, and yet this realm of policymaking is increasingly important to the everyday business of governing.

Because of the increasing importance of state-level rulemaking processes, this study analyzes regulatory cases in two states to examine the relationship between information, stakeholders, and regulatory processes. Through this work, we hope to understand the following: *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?* The findings presented below are important in the context of U.S. states, but they also include lessons relevant to state and provincial rulemaking in other national contexts.

State-Level Rulemaking as a Locus of Environmental Policymaking

The rulemaking process has become central to policymaking over the past several decades, with a large portion of regulatory authority delegated to administrative agencies (Kerwin & Furlong, 1992; S. W. Yackee, 2006). This is increasingly so in a U.S. federal system defined by political gridlock, wherein much policymaking occurs at state regulatory levels. Regulation consists of "an array of public policies explicitly designed to govern economic activity and its consequences at the level of the industry, firm, or individual unit of activity" (Eisner, Worsham, & Ringquist, 2000, p. 158). State-level bureaucratic agencies are not elected, and as a result, states 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 legitimacy and accountability of the bureaucracy and improve decision making processes (Jewell & Bero, 2007), with some states incorporating more open democratic practices than others (Woods, 2009).

Although the rulemaking process is an important venue of policymaking, "one of the enduring questions surrounding rulemaking is the degree to which administrators use public feedback to inform the content of government regulations" (S. W. Yackee, 2013, p. s105), including feedback from organized interests and other stakeholders (Jewell & Bero, 2007; Woods, 2009). At the

federal level, organized interest groups often provide the bulk of comments during the rulemaking process, with most comments coming from the regulated community (Cheit, 1990; Golden, 1998; Montini, Mangurian, & Bero, 2002), although some studies question the extent to which industry groups are able to influence the rulemaking process (Cropper, Evans, Berardi, Dulca-Soares, & Portney, 1992; Golden, 1998; Nixon, Howard, & DeWitt, 2002). Wilson (1989) argued that the relatively greater role industry plays in rulemaking is due to costs of regulation being concentrated with industry, whereas the benefits are often diffused across many stakeholders (including the public). Therefore, industry 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. Although there are pragmatic and necessary reasons for industry input in rulemaking, in an era of Sunshine Laws and demands for government transparency, we would expect some degree of solicited public input during rulemaking. In some regulatory cases, citizens may, indeed, effectively influence rulemaking (Cuellar, 2005; Layzer, 2012), or even provide the majority of input during comments periods (Cuellar, 2005).

Public comment in state regulatory processes varies across regulation (Shapiro & Borie-Holtz, 2013), but those comments may minimally influence regulatory outcomes. Although many of the regulations studied by Shapiro and Borie-Holtz (2013) received a substantial number of public comments, only a few regulations were significantly altered in response to public comment. The content and amount of input received during the rulemaking process, the dynamics among and within interest groups (Furlong, 1997; Golden, 1998; West & Raso, 2013), and the timing and participatory procedures of the rulemaking process may all influence rulemaking outcomes.

It is unclear the extent to which industry interests have disproportional influence in rulemaking (Woods, 2009), as claimed by some (J. W. Yackee & Yackee, 2006), but refuted by others (Teske, 2004). In addition, interest group participation in rulemaking processes can influence group perceptions of regulatory outcomes (S. W. Yackee, 2013). It is therefore important to understand how industry and other interest groups provide input and how this input may affect perceptions of the rulemaking process. In a call for additional research, Woods (2009) stressed the need for a greater understanding of how participation mechanisms alter the influence among interested actors and the public. In addition, the studies on participatory procedures and input during rulemaking processes have primarily focused on the federal level, while state-level rulemaking processes remain less clear.

In addition to the information received from stakeholders during rulemaking, agency processes, discretion, and resources may influence regulatory outcomes (Teske, 2004). State-level studies over the past decade suggest that participatory procedures and mechanisms influence agency perceptions of the process (Woods, 2009) and that agencies have significant discretion during the process (West & Raso, 2013). Teske (2004) concluded that although interest groups compete for influence across states and regulatory issues, state agencies have a high level of discretion in determining the final regulatory outcome. Using a survey of agency directors across multiple states, Woods (2009) examined how agency directors perceive the influence that various actors (e.g., interest groups, legislatures, governors, public) have on rulemaking processes. The results suggest 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 agencies may have significant discretion, agency procedures and administrative rules that govern rulemaking may also influence and circumscribe the actions of agencies (Shapiro & Borie-Holtz, 2013).

Rulemaking processes are not limited to traditional notice and comment periods. Informal pre-rulemaking processes may comprise the period prior to the issuance of draft rules (referred to as "pre-draft processes" in this study; West, 2004, 2009; S. W. Yackee, 2012). These processes that sit outside the notice and comment period may diminish inclusiveness, transparency, and standardization of the overarching rulemaking process (Mendelson, 2007; West, 2004, 2009). During these pre-draft processes, agency staff may invite organized interests to discuss and help develop regulations prior to draft rule notification. These processes can take the form of stakeholder workshops, informal consultations, or similar activities. Often ad hoc in nature, these processes provide agency staff with a high level of discretion as to what interests to include in this phase of rulemaking (Mendelson, 2007; West, 2004, 2009). When rules are developed through such pre-rulemaking processes, it is the indirect beneficiaries of the regulation, often the public, who lose voice in the process (Mendelson, 2007).

Pre-draft stakeholder processes may lead to actual or perceived bias of regulators in favor of the regulated community (West, 2009; S. W. Yackee, 2012). To guard against this potentiality, some federal agencies issue advanced notice of proposed rulemaking (ANPRM), which notifies the public of the initiation of the development of regulation and invites data and input from interested parties. However, even in cases where ANPRM is used, off the record lobbying by interest groups can affect the content of regulation (S. W. 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 follows similar patterns.

The literature on rulemaking indicates that at the state-level, we should expect potential variance in the quantity and content of input that agencies receive from various interest groups, including the public and industry. It also suggests that the perceptions of fairness, access, and appropriateness of rulemaking outcomes may be importantly influenced by the procedures used to govern the rulemaking process. Finally, the presence or absence of pre-draft procedures to develop draft rules may be central to understanding both the input of various actors as well as regulatory outcomes. These expectations guide the research questions articulated below and the analysis to follow.

Research Questions: Regulation, Information, and Stakeholder Influence

Understanding these gaps in the literature as described above, the following research question is presented to direct this analysis:

> **Research Question 1 (RQ1):** 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?[1]

To answer this broad question, several sub-questions will be analyzed below.

> **Research Question 1a (RQ1a):** What actors are perceived as important by regulators and stakeholders in rulemaking with regard to the input they provide regulators?
> **Research Question 1b (RQ1b):** At what points in the rulemaking process are stakeholders involved and perceived as influential?
> **Research Question 1c (RQ1c):** What are the resulting normative implications of these findings as they relate to stakeholder involvement in rulemaking?

These related research questions will allow for an analysis of the types and influence of various forms of informational inputs in regulatory decisions, the influence that stakeholders can and do have in the regulatory process, and the extent to which established rulemaking processes can enhance or limit the influence of various viewpoints, sources of information, or stakeholders.

Research Methods

This study investigated stakeholder involvement and informational inputs into regulatory decisions to understand rulemaking processes and influences on regulatory outcomes. To do so, in-depth multi-method case studies in two states, across two regulatory topics, were conducted to understand the complex phenomena of rulemaking in their real-world setting, using multiple sources of data as recommended by Yin (2003). Colorado and North Carolina 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. For example, in the cases outlined below, the hog farm industry is very important to the economy of North Carolina, but not as central to the economy in Colorado where the agricultural industry is more diversified. In terms of government transparency, North Carolina and Colorado fall into the second and third quartiles in the transparency index cited above, ranked 20th and 35th, respectively. This indicates that these two states are not outliers in terms of the processes they use to govern.

Regulatory Topics for Analysis

Renewable energy portfolio standards (RPS). To encourage the development of renewable energy sources to reduce fossil fuel use and dependence, 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 (U.S. Department of Energy (USDOE), 2012). Both of the states chosen for this study have passed a RPS, but they vary by stringency of requirement and timeframe.

Concentrated animal feeding operations (CAFOs). CAFOs are a significant contributor to water pollution problems in many U.S. states. The runoff from operations such as large hog farms, cattle feed lots, and chicken farms leads to excess nutrients in water bodies, eutrophication, algae blooms, 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 (EPA, 2008). Prior to this, some states such as North Carolina were already regulating CAFOs. Under the EPA guidelines, each state is allowed to promulgate regulations specific to the needs of the state, industry, and water resources.

Data Collection and Analysis

Data were collected from two sources for the case study research presented here. First, all documents related to rulemaking processes were gathered from regulatory agencies, including draft and final rules, public comments, formal statements, and any supporting documentation agencies used and made publicly available. Second, semi-structured interviews were conducted according to procedures outlined by Rubin and Rubin (2005). Interviews were conducted with representatives from (a) regulatory agencies, striving to interview those directly involved in the cases studied here when possible; (b) regulated industry; (c) advocacy groups; and (d) citizens involved, depending on the actors involved in each case. Names for interviews were gathered from regulatory documents and hearing statements. Information provided in interviews was cross-referenced with regulatory documents when possible to confirm statements made by participants. Table 1 shows the data sources used for each case.

Data Coding and Analysis

A constant comparative approach was used to code interview data[2] using NVivo software to maximize consistency of coding and analysis, and to allow for examination of the variations and similarities among interview participants, categories, and cases (Miles & Huberman, 1994). Codes for both document analysis and interview coding were created based upon the extant literature (Weston et al., 2001). By breaking down the data into their basic concepts and frames, it was possible to detect patterns in the data and determine the role of information and stakeholders in rulemaking processes. Two analytical processes were used in this study to analyze the coded data: a within-case analysis for each regulatory case to understand the processes and influences in rulemaking (Miles & Huberman, 1994), and a search for patterns among all cases based on the within-case analyses. The cross-case analysis was used to determine common patterns across cases to form the basis of research findings presented below (Bourgeois & Eisenhardt, 1988; Eisenhardt, 1989).

Case Studies

Rulemaking processes in each state vary in their specific requirements and are typically governed by each state's Administrative Procedure Act. Generally, rulemaking involves several steps: (a) the issuance of a draft rule by a regulatory agency, along with a notice of rulemaking, (b) a defined

Table 1. Data Sources by Case.

Data source	NC CAFO	NC RPS	CO CAFO	CO RPS
Interviews	6	3	2	4
Total documents	355[a]	44	74	667[b]
Comments	307[a]	37	51	646[b]
Agency documents	48	7	23	21

Note. NC CAFO = North Carolina concentrated animal feeding operations; NC RPS = North Carolina renewable energy portfolio standards; CO CAFO = Colorado concentrated animal feeding operations; CO RPS = Colorado renewable energy portfolio standards.
[a]Includes 219 form letters submitted during public comment period.
[b]Includes 369 form letters submitted during public comment period.

period during which stakeholders and the public can provide written statements in response to the draft rules, (c) a formal evidentiary or adjudicatory hearing during which time regulators hear testimony or summary statements from stakeholders and the public, and (d) a vote or other formal mechanism by which final rules are adopted. Additional processes such as negotiated rulemaking or stakeholder consultation can change the nature of this standard process and are often included before the issuance of a draft rule for efficiency and to identify points of conflict among stakeholders, as discussed below. The case study summaries below are based on data from both regulatory documents and semi-structured interviews. A more formal analysis of the research questions will follow.

Colorado: RPS

The RPS in Colorado was the first RPS in the United States to be created by a citizen initiative. In 2004, after losing a legislative battle to add a renewable energy standard to Colorado law, environmental groups took the renewables issue to the ballot in the form of Amendment 37. In November 2004, Colorado voters approved a 10% renewable energy standard for the investor-owned utilities. This has since been raised by the state legislature to the current level of 30%, which must be met by 2020. These subsequent increases were accomplished through the Colorado General Assembly, in part, because Colorado's major utility, Xcel Energy, no longer opposed subsequent increases. Primary dissenters in the subsequent legislative iterations primarily included the rural electric co-ops.

After Colorado voters approved the initial RPS and the legislature subsequently acted to codify the RPS, the Public Utility Commission (PUC)

initiated a rulemaking process. This is the point at which the issue became focused on more technical aspects of RPS implementation rather than the broader question of whether the government should encourage greater use of renewable energy statewide. However, because of the focus (discussed below) on retail energy rates and solar credits, it would be expected that citizens may still be interested and participate in this rulemaking process. Because the RPS primarily included matters new to rulemaking in Colorado, it was a unique and iterative process. Also making it unique was the fact that the renewable energy sector had strong political winds supporting its efforts as evidenced by the passage of a constitutional amendment supporting the RPS. A third unusual element of this rulemaking was the fact that most of the discussion happened between two types of regulated entities rather than advocacy groups or the public: Xcel Energy (and other major utilities such as Aquila) and the newly invigorated renewable energy companies, particularly residential solar installers. Environmental advocates involved were those who had successfully passed Amendment 37, a coalition that called itself Core 37.[3]

Debate over rulemaking to implement Amendment 37 (called SB-05-143 after the Colorado General Assembly codified it) centered on several elements, most importantly (a) the retail rate impact, or the amount that customers' utility bills were allowed to increase to offset the costs of adding renewables and (b) if and how renewable energy credits would be used in Colorado to account for the environmental benefits of renewable energy and offset the costs. In this case, the draft rule documents included questions concerning items on which the PUC sought comments or additional input from the regulated industry, primarily due to the fact that the RPS was a new issue that had not previously been dealt with in Colorado and the PUC wanted to determine feasibility of various elements of the draft regulations. The regulated community (i.e., Xcel and other utilities, along with the renewable industry) negotiated consensus rules on many points. These were adopted by the commission almost in their entirety. The remaining points upon which consensus could not be reached by industry groups were the focus of the public rulemaking hearing and formal statements. Public comments were accepted through the entire process, but the most significant input came from industry negotiations on the consensus rules. After appeals, the rules were finalized in April 2006.

Colorado: CAFOs

CAFO rules came to Colorado in two iterations. First, in 1998, Amendment 14 was passed by Colorado voters heavily regulating housed commercial

swine feeding operations (HCSFOs). Large hog farms were relatively new to Colorado and were of concern to many residents in both rural and urban areas due to the potential impacts on groundwater from waste lagoon leakage. When the EPA mandated that states issue CAFO rules in 2003, Colorado had already done so for hogs. The 2003-2004 rulemaking studied here, therefore, focused on other CAFO types, such as cattle.

In this rulemaking, the Colorado Livestock Association, Colorado Farm Bureau, Dairy Farmers of America (and several allied organizations), along with a number of concerned ranchers and citizens, were the primary interested parties. Some of the concerned individuals who participated originally in the hog farm issue became involved because they wanted to ensure that the HCSFO rules were not re-negotiated as part of this CAFO rulemaking. The agency in charge of rulemaking was the Colorado Water Quality Control Commission (WQCC).

The WQCC held a series of stakeholder workshops prior to notice of rulemaking being issued. These workshops, or "work groups" as they were often described, included interested stakeholders and staff from the WQCC. Major points of contention were worked out during this process, leaving fewer points of conflict to be dealt with by the commissioners during the public comment and hearing process. Issues of contention included (a) the definition of "concentrated" animal feeding operations, (b) recordkeeping and reporting requirements, (c) nutrient management plans, (d) setbacks from surface waters, and (e) inspections and soil sampling analysis requirements. After a work group process in 2003, final rules were adopted in April 2004.

North Carolina: RPS

In the mid-2000s, the North Carolina Utilities Commission hired a consulting firm to examine the potential for renewable energy and energy efficiency in North Carolina. The results of this study spawned legislative action on a renewable portfolio standard. In August 2007, the North Carolina General Assembly enacted a RPS, which required the Utilities Commission to initiate a rulemaking process (Session Law 2007-397). Negotiations occurred among involved parties, including utilities and environmental organizations during rulemaking.

To initiate the rulemaking process in August 2007, the Utilities Commission listed five "Parties of Record": three utilities,[4] North Carolina Electric Membership Corporation (NCEMC), and ElectriCities (a trade organization). As Parties of Record, these entities were given the ability to provide suggested revisions to the proposed rules and comment on proposed rules. The Utilities Commission issued a list of 18 specific and technical questions to

the Parties of Record. All other parties had to petition the Commission to comment on the proposed rules. A group of environmental organizations requested extension of the rulemaking process to include working and/or stakeholder groups, but the Utilities Commission denied their request. No public hearings were held as a part of the process. The rulemaking process centered on three major issues: (a) penalties/enforcement mechanisms, (b) a tracking system for renewable energy certificates, and (c) coordination of cost recovery rate changes. Official proposed rules were issued in late October and comments on the proposed rules were to be submitted by November 2007. During this process, multiple rounds of comments were received from 23 entities—a mixture of the regulated community, the renewable energy sector, agricultural interests, environmental organizations, industry groups, and municipalities. The Utilities Commission promulgated final rules in February 2008.

North Carolina: CAFOs

Over the past two decades, management of waste flowing from CAFOs in North Carolina has been complex, evolving, and at times acrimonious. Multiple legislative and regulatory processes have involved a diversity of stakeholders at all levels and branches of government. During the early 1990s, the number of swine and swine operations rose significantly in the state, placing North Carolina second of all U.S. states in pork production, behind Iowa. The amount of hog manure subsequently increased, elevating concern about waste management, public health, and water quality issues in the coastal plain of North Carolina. This escalation of hog farming, along with several waste lagoon spills into nearby rivers sparked the attention of and action by the media, environmental organizations, the Attorney General, and the General Assembly, leading to a decade of state-level legislative and rulemaking processes.

The State of North Carolina initially promulgated state "non-discharge" permits rules (Chapter 15, Section 2H, heading 0200), which required farms more than a certain size to develop "Certified Animal Waste Management Plans." In the mid-to-late 1990s, media attention focused on CAFOs due to major waste spills into rivers. The Raleigh *News and Observer* published a Pulitzer Prize-winning series on the industry, titled "Boss Hog," which uncovered the close relationships between the regulated community and government officials. In response, the General Assembly commissioned "A Blue Ribbon Study Commission on Agricultural Waste" consisting of a diversity of stakeholders, convened to discuss swine waste management. This study eventually led to regulatory changes in the CAFO regime in North Carolina.

In 2000, Attorney General Mike Easley reached a compromise with major hog producers (e.g., Smithfield Foods and Premium Standard Farms) to study innovative technologies to manage hog waste. This study and associated research fund, called The Smithfield Agreement, was overseen at North Carolina State University. However, the EPA declared the North Carolina CAFO permitting system not "functionally equivalent" to the EPA guidelines and therefore in need of revision. As a result, the North Carolina Department of Environment and Natural Resources along with the Environmental Management Commission commenced a rulemaking process. As a part of this process, well-attended public hearings were held in November 2001. General rules for swine, cattle, and poultry operations were promulgated from this process.

In 2003, the rulemaking process studied here began when EPA modified its rules and in doing so, increased the number of CAFOs that were to be regulated under the North Carolina permitting system. These changes required states to update their permitting systems by 2005. At the same time, *Waterkeeper Alliance v. EPA* (2005) was heard in the U.S. Court of Appeals for the Second Circuit and required federal-level regulations to be revised. After the completion of the Smithfield Agreement study on innovative waste management technologies in North Carolina, the General Assembly passed legislation that established five performance standards for the technologies promoted by the study and charged regulators to promulgate new rules. To develop a new CAFO, or expand an existing one, the legislation dictated that the CAFO had to be permitted and use technology to meet these standards. This rulemaking processes again involved multiple stakeholders and public comment period as well as public hearings during the fall of 2006. The analysis below focuses on this round of stakeholder negotiations and rulemaking processes that occurred around 2005-2008.

Research Findings: Process and Information Influences on Regulatory Outcomes

The goal of this analysis is to examine stakeholder informational inputs in the rulemaking process in various environmental regulatory cases, providing an understanding of the role of sources of information[5] in regulatory decisions by government agencies. Strategic use of information, the role of non-regulated entities in rulemaking decisions, and the normative implications associated with actor and information influence in these regulatory contexts are the foci of the findings presented here. In addition, the role of stakeholders as sources of information and as strategic actors is analyzed, particularly with

regard to whether the rulemaking processes established by regulatory agencies are such that a diverse array of stakeholders can be expected to participate.

First, to understand the influence of information on regulatory decisions, we must examine the various sources of information perceived as important by both regulators and stakeholders. The perceptions of regulatory staff are important to understand because these perceptions may influence stakeholder outreach by agencies and pre-draft processes undertaken, and therefore staff perception of equity in representation of stakeholders during the rulemaking process has the potential to influence regulatory outcomes. Other stakeholders' perceptions of influence are important to understand because these perceptions may, in turn, influence the decisions they make about the types and sources of information they decide to submit as part of their formal statements and hearing testimony or whether they decide to participate in rulemaking. The following sub-question begins this analysis: *RQ1a: What actors are perceived as important by regulators and stakeholders in rulemaking with regard to the input they provide regulators?* Stakeholders and regulators were asked what sources of information were particularly influential or important in the discussions, negotiations, and decisions made, from their perspective. As described in Tables 2 and 3, media were rarely considered a source of information for participants in the rulemaking process or for the public to learn about the rulemaking process and issues, with the exception of the North Carolina CAFO case. In the majority of the cases, there was a general perception that the media did not cover the rulemaking process to any significant degree because of the technical nature of rulemaking.

In the NC CAFO case where media were influential to rulemaking, media were used strategically by environmental organizations during the rulemaking process to attract attention and interest of the public:

> . . . there was a perception that they were more interested in media than solutions . . . They were very good at getting the attention of the newspapers and the radio and the TVs and everything, but then you come down to . . . negotiate a set of rules and they didn't really have anything specific to offer, so I think that there was a loss of credibility and trust that happened as a result of that. (NC-CAFO-01)

The NC CAFO case differs from the others in the following ways: (a) the policy and regulatory processes were sparked by attention-grabbing images of waste lagoon spills into local rivers and (b) the perception that politics and governing officials and the regulated community are intertwined, also serving as an attention-catching narrative for the media. But even in the case of

Table 2. Influential Information Sources in RPS Rulemaking in North Carolina and Colorado.

	Colorado	North Carolina	Relevant quotations
Media	Very little media coverage about RPS rulemaking Media coverage is not a source of information for commissioners or for the public about rulemaking	Very little media coverage occurred, especially during rulemaking Process is seen as too dry and technical to interest the media	"I don't remember a lot of media coverage of our rulemaking . . . I think partly that's because it's not nearly as exciting as the legislative hearings." (CO-RPS-01) " . . . I think from a reporter's perspective . . . there wasn't generally anything that would stand out as being especially newsworthy." (NC-RPS-02)
Public/Advocacy Groups	Core 37 participated throughout the process after pushing for passage of Amendment 37 Citizens supportive of residential solar commented	Minimal comments were received from the public Environmental NGOs submitted written comments	" . . . there were a lot of stakeholders who . . . were very passionate about Amendment 37 and wanted to participate in the rulemaking . . . " (CO-RPS-01) North Carolina: No mention of public or advocacy input
Data	Advocacy groups worked to find technical studies from government agencies that supported their positions Science is typically not brought to bear in energy rules, but technical information was	Technical renewable energy feasibility study was conducted prior to legislation Technical reports by consulting firms and experts were prominent in the rulemaking	"The national labs, even beyond . . . [National Renewable Energy Lab] are places that we tend to get information." (CO-RPS-02) " . . . technical publications by consulting firms . . . also some government agencies like Lawrence Berkeley National Laboratory . . . technical white papers or other reports . . . That's a major source of technical information." (NC-RPS-01)
Industry	Industry, both renewable and traditional, was the primary source of input and expertise regarding the technical aspects of implementing the RPS Industry negotiated a set of consensus rules, which were adopted by the PUC and therefore narrowed the debate	Utility Commission requested specific technical information from utilities prior to draft rule formation Utilities and renewable energy sector submitted written comments prior to draft rules as well as comments on draft rules	"A large part relies on the experts that are telling the Commission that it's either safe or unsafe . . . And for those things we typically rely on our internal [utility] experts for that." (CO-RPS-04) "While not intending to limit the parties' initial filings in this proceeding in any way . . . Appendix A [includes a] number of issues about which the Commission is specifically interested in receiving comments or suggestions" (NC Utility Commission, 2007).

Note. RPS = Renewable energy portfolio standards; NGO = non-governmental organization.

Table 3. Influential Information Sources in CAFO Rulemaking in North Carolina and Colorado.

	Colorado	North Carolina	Relevant quotations
Media	Media coverage was not a source of information for the public, nor was it a source used by regulators	A lot of media attention was centered around spills, hurricanes, and the politics of hog waste Much less coverage occurred during rulemaking processes	"Nobody made it significant or issued a lot of press releases." (CO-CAFO-02) "The media coverage went from nothing to spectacular . . . series that won the Pulitzer Prize for *The News & Observer* . . . and then it kind of fell off the radar screen." (NC-CAFO-03)
Public/ Advocacy Groups	A few vocal citizens sometimes coordinated with environmental NGOs, but often worked alone and paid for experts to provide testimony Citizens submitted studies from particular sources as a strategy to earn credibility	Public hearings were held in 2001 and 2006 Advocacy organizations used public comments to help push their agendas	"If you get an ag university study that supports your position, that's significant." (CO-CAFO-02) "If there was a public hearing that was going to be held in a particular location, we would work with contacts we had within that community to . . . encourage them to participate . . . " (NC-CAFO-02)
Data	Science and technical information was included from EPA and university studies Advocates submitted studies that supported their views, especially if produced by "ag universities"	Smithfield Agreement was an influential information source Diverse stakeholders produced and used information in rulemaking process	"If EPA has done studies and analyses that will be a major piece." (CO-CAFO-01) "When the law was passed in 2007, the law actually specifically said, 'Use the recommendations of the Smithfield Agreement and report.'" (NC-CAFO-04, 2014)
Industry	The regulated industry was highly involved in rulemaking and participated in pre-draft processes Industry has highly involved trade groups that represent individual CAFO operator views	Industry participated in stakeholder processes, technical advisory committees, and the hearing process Industry co-funded a technical study on hog waste management	"In general . . . we get much less input from kind of the environmental community perspective than from the regulated community perspective." (CO-CAFO-01) "Individual hog farmers . . . came to the table and felt like the industry and the Farm Bureau weren't representing their perspective, so you had a break off group of farmers who were more independent, who would come to the meetings." (NC-CAFO-04)

Note. CAFO = concentrated animal feeding operation; NGO = non-governmental organization.

the NC CAFO regulations, media coverage fluctuated throughout the decade, often quieting to a lull during the actual rulemaking process.

The most influential source of information as perceived by both regulators and stakeholders was industry in the majority of cases studied, with the same exception of the NC CAFO case. Industry was granted a de facto status as experts in most cases, and regulators were expected to have beneficial working relationships with the regulated community, as described by regulators. This relationship and status as experts gave industry access to the rulemaking process that other actors did not enjoy. For example, in the Colorado RPS case, although citizens were actively involved in promoting the passage of a constitutional amendment to require increased use of renewable sources of energy, once they had achieved their goal and rulemaking to implement the law had begun, interview participants describe citizens as becoming less important to the process. Despite rulemaking related to potentially interesting participants of retail energy rates and solar energy credits to homeowners, citizens were not as actively involved in this case as they had been in the electoral politics that preceded it during the campaign for Amendment 37. Rulemaking became primarily a conversation between two regulated entities—the public utilities and the renewable energy sector.

The data presented in Tables 2 and 3 above beg following the question: If industry is perceived by regulators and other stakeholders as the most influential source of information in the rulemaking process, is public input or input from other non-industry stakeholders perceived as important to any aspect of the regulatory process? Interview participants indicated that public do not often participate in regulatory processes and can get frustrated at the process when they do participate:

> Citizen input generally influences the commissioners in their exercise of discretion . . . like "use your common sense, commissioners." (CO-RPS-01)

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

> So at the kind of pre-development stage, we're not really including the general public, just the kind of stakeholders that we know about. (NC-CAFO-01)

> . . . you could predict who was going to say what, and what position they were going to take. And it was just kind of the same thing over and over and over again, and the community groups got really, really frustrated . . . And, in very dramatic fashion they kind of literally threw in the towel and walked out of the meeting. (NC-CAFO-02)

If public input is perceived by regulators and stakeholders as unimportant, or only important in the exercise of discretion by regulators (i.e., in their role as public trustees, they are expected to protect the public interest but may not view citizens as legitimate stakeholders in the public hearing and comment process), it is necessary to analyze what rulemaking processes in various contexts look like, especially concerning the role and influence of stakeholders beyond only the regulated community. This is investigated through *RQ1b: At what points in the rulemaking process are stakeholders involved and perceived as influential?* In all of the processes studied here, a pre-draft process took place prior to the drafting of initial proposed rules. These processes may be more open to diverse stakeholder input into rulemaking than regulatory comment and hearing processes, or they may be more closed depending on the recruitment of participants. Rules changed very little between draft and final rule in most instances according to interview participants, so this pre-draft process is central to the content of rules. In instances where rules do change significantly between draft and final rule (CO RPS, for example), the change was perceived by regulators and stakeholders as resulting from industry participation in rulemaking. In the case of CAFO standards in Colorado, stakeholder workshops were held with interested parties, primarily identified from their previous participation in agricultural water quality rulemaking proceedings. These actors gathered with staff from the regulatory agency to consider draft rules. Stakeholder interview participants describe this process as time-consuming and technical, therefore of interest only to the parties most affected by rulemaking. In this case, the parties included the regulated industry, industry organizations, and neighbors of CAFOs who were worried about the effects of CAFO operations on groundwater. Table 4 outlines the various roles played by stakeholders during the rulemaking processes studied here. In the analysis, the public is included in the category with advocacy groups. Interview participants typically used the terms interchangeably, indicating that there is an expectation that advocacy groups represent the public's interests or views.

Finally, because scholars, regulators, and elected officials often champion the importance of diverse stakeholder involvement in rulemaking, especially as it relates to the role that local knowledge, stakeholder buy-in, and collaborative governance can play in successful regulatory outcomes (Fischer, 2005; Leach & Sabatier, 2005), we ask the following question: *RQ1c: What are the resulting normative implications of these findings as they relate to stakeholder involvement in rulemaking?*

Perceptions from advocates, regulators, and industry interviewed for this study were fairly consistent. Rulemaking in most cases focused on the input generated by the regulated industry rather than public input. Regulatory

Table 4. RPS and CAFO Rulemaking Processes and Stakeholder Involvement Across States.

	Colorado	North Carolina	Relevant quotations
Legislative/ Political	RPS: Supporters of renewables had political momentum on their side from the ballot initiative victory CAFO: There was not a lot of focus on CAFOs; HCSFO regulations in 1999 were much more political and public	RPS: Stakeholders were involved in legislation negotiation CAFO: Several pieces of legislation included stakeholder participation; the NC Attorney General was involved in spearheading an agreement with industry	"And the [renewables] industry had a win behind it. Winning the election and Amendment 37 carried a lot of political sway." (CO-RPS-01) " . . . during the negotiation of the legislation . . . they engaged with kind of the broader environmental coalition of people who were not involved specifically and also with . . . the members of the public." (NC-CAFO-01)
Pre-Draft	RPS: The PUC held "open forum" workshops prior to the issuance of draft rules. CAFO: Work group sessions were held prior to draft rules, which worked through many of the major issues	RPS: Advocacy groups requested extension of rulemaking process to increase opportunities for input, but their request was denied RPS: Utilities and consumer groups became automatic parties to the rulemaking process; other parties had to petition to become parties	"So sometimes you can be very effective in those work groups once you learn how they work and what you need to do to participate." (CO-CAFO-02) "While the Commission appreciates the suggestion to take additional time . . . it believes that the better course to follow is to maintain the current schedule." (NC Utility Commission, 2007)
Formal rulemaking	RPS: After draft rules were issued, industry sectors negotiated consensus rules; hearings focused only on areas not agreed to by industry CAFO: Once the draft rules were issued based on work group input, very little was changed during the rulemaking process	RPS: 23 parties submitted official comments during rulemaking process, no stakeholder process CAFO: Multi-party stakeholder processes occurred during the negotiated rulemaking-type process	"The Commission has substantial sets of written input before we get to the rulemaking hearing itself . . . try to keep the rulemaking hearing itself focused on short summaries of positions and then commission questions of people about the various issues." (CO-CAFO-01) "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)

Note. RPS = renewable energy portfolio standards. CAFO = concentrated animal feeding operation; HCSFO = housed commercial swine feeding operation; PUC = Public Utility Commission.

agency staff were also highly influential in rulemaking due to their roles in drafting rules, making procedural decisions, and advising decision makers:

> The majority of the time [the commission's] doing something pretty similar to what the staff recommends, but not all the time. (CO-CAFO-01)

> Commissioners don't need to be experts in the field and it would be very difficult to be an expert in telecommunications, transportation, energy, and water. So they do defer to staff. (CO-RPS-01)

> The utilities are very skilled at communicating with the Commissioners and they can be very persuasive. They're good at that. (CO-RPS-01)

> . . . And the industry really fought back hard against that, and DWQ (Division of Water Quality) just seemed very weak as its leadership role. Its staff people were not trained in meeting facilitation, they were not trained in conflict management, and so a lot of times the stakeholder meetings would really disintegrate into shouting matches . . . (NC-CAFO-02)

Many interview participants questioned whether it matters that the public participates in the rulemaking process or not, particularly due to the pre-draft workshops and meetings that seem to dictate the outcome of rulemaking and the heavy influence of industry. In the Colorado RPS case, citizens were heavily involved in the electoral passage of the RPS, and then were involved in rulemaking primarily through the formal comment process, but all interview participants agreed that the regulatory decisions focused on the negotiations between the two industry groups (traditional and renewable) and that citizens and advocates primarily served as champions for the broader cause of renewable energy rather than serving as influential parties to rulemaking. This pattern of skepticism about the value of public input was seen in all cases:

> In the course of rulemaking, the major stakeholders got together and where they could agree on rules they came to an agreement and they presented to the Commission through the comment process what were called the consensus rules . . . and the Commission was delighted in this case with those and adopted almost all of those revisions. (CO-RPS-01)

> . . . Honestly I don't know that they made any significant changes in response to our comments. I think they made—they made significant changes in response to the utilities and the public staff. (NC-RPS-01)

> I mean, you never made any headway, and I felt like we started calling it a "snake holder process," because it was like the Division of Water Quality

> would convene everybody, and then they would just sit back and kind of roll their eyes while the same old arguments between the same people would take place. (NC-CAFO-02)

It is important to note that there may be good explanations for such industry influence. For example, the public may not be equipped with technical knowledge to enable them to participate in the complex rulemaking process, nor might they be interested in such minutia. In addition, as Wilson (1989) wrote, industry sees a clear economic benefit from participation in rulemaking. They are directly affected by the rules promulgated through this process, whereas the public may receive much more indirect and diffuse benefits. Finally, citizens, as indicated by the Colorado RPS case, are often more interested in the broader issue or political context of the issue and less interested in the technical aspects of the rule. In these cases, the knowledge and preferences that citizens bring to bear in rulemaking may be inappropriate because regulators have clearly prescribed roles to play in promulgating specific regulations. For example, if a citizen were to provide comment that "Factory Farms should be banned in North Carolina," this contributes little to the regulatory discussion being held over the degree to which CAFOs should mitigate their effluent, by how much, and through what means.

Despite the rhetoric in scholarly and public discourse about the importance of stakeholder input and transparency of government decisions, the processes established outside of the standard rulemaking structures dictated by state Administrative Procedure Acts seem to circumvent public input into rulemaking decisions. Presumably most of these processes were established, as suggested by the quotations above, to eliminate areas of contention and streamline bureaucratic processes (both laudable goals). In reality, what we see is that those involved in the pre-draft processes, usually industry, are the actors whose input matters significantly to regulatory outcomes.

Discussion

This analysis spawns four major themes: (a) pre-draft processes, influenced by agency discretion outside of the rulemaking processes, often guide and frame the subsequent rulemaking process, potentially limiting the influence of the public; (b) in three of the four cases, citizens did not meaningfully participate in or significantly influence the rulemaking process; (c) the regulatory agency and commission staff affected the rulemaking process through decisions about who could participate (also when and how), advice to decision makers, and the drafting of rules; and (d) industry served as a substantial source of information, in both the pre-draft and rulemaking processes.

Our analysis of these cases points to the importance of pre-draft processes that frequently occur before draft rule formation and issuance. These processes may expedite the rulemaking process, but they often rely on the stakeholders most familiar to agency and commission staff, potentially narrowing the diversity of voices influencing the rulemaking process. These practices may decrease regulatory transparency and are most often formed and implemented by regulators (often ad hoc), granting agency staff a high level of discretion and influence during the process. These pre-draft processes provide an opportunity for uneven access and influence among stakeholders. The procedural justice literature suggests that voice, the perception of one's ability to express their views openly, affects how one judges a process as fair. These pre-draft processes may negatively affect how stakeholders view the rulemaking process (Lind, 1988; Lind, Kanter, & Early, 1990; Maguire & Lind, 2003). How stakeholders and the public judge the rulemaking process has also been shown to influence the level of support for rulemaking outcomes (Maguire & Lind, 2003). These findings echo those found at the federal level, in which stakeholder processes similar to the pre-draft processes studied here were found to limit transparency and inclusiveness of the rulemaking process (West, 2004, 2009).

Although there is a long tradition in political participation literature of recording and explaining non-participation among citizens (see Brady, Verba, & Schlozman, 1995; Schlozman, Verba, & Brady, 1995; Verba & Nie, 1972; Verba, Schlozman, & Brady, 1995), there is also an important body of work and practice that has focused on studying and creating the most effective and satisfactory (for both decision makers and citizens) participatory processes to increase stakeholder support, democratic governance, and regulatory compliance (Allen, 1998; Beierle, 1998; Hampton, 1999). Based on this attention to public process and legitimacy, it was somewhat surprising to learn that regulatory agencies are not engaged in a more authentic public engagement process. In the majority of cases studied here, regulatory agencies did not directly solicit input from the public. When public did participate, it was due to general political climate surrounding a policy subsystem (i.e., CAFOs or RPS legislation) or media coverage of focusing events such as waste spills from hog farms.

As described in the analysis above, industry was perceived by regulators and other stakeholders to have a higher level of influence in the rulemaking process in the majority of cases. This finding of asymmetric influence supports Golden's (1998) findings that industry supplied an abundance of comments during comment periods in federal rulemaking. Golden (1998) attributed this differential in comment submission to the resources of industry. Compared with smaller advocacy groups or individual citizens, industry

groups have the knowledge, finances, and staff to follow and participate in the rulemaking process. This finding is likely playing out at the state-level as well. Furthermore, the regulating agency, using its discretion in the pre-draft period of negotiation, may potentially magnify this resource imbalance. By developing informal procedures that help dictate who can participate[6] in the pre-draft processes, agency staff may magnify this access and the corollary influence of industry in the rulemaking process.

There are two important caveats relevant to this discussion. First, although this study did not find significant public input in rulemaking processes, regulators are promulgating rules in a real-world context. That is to say, regulators may be tacitly taking into account likely public input or at least potential public outcry when they are drafting rules. As mentioned above, this may fall into the general exercise of discretion that regulators have when it comes to the public interest. In addition, when drafting rules, regulatory bodies may be motivated or constrained by requirements established by state legislative bodies or specific legislation (Shapiro, 2002). These requirements may include mandatory participatory processes or other process requirements. Shapiro (2002) found that controls over the rulemaking process enacted through state legislation had less influence on the rulemaking decisions than interest groups and current political actors, but they are important to consider because tacit or direct legislative influence may take place during rulemaking within agencies. In the context of rulemaking, agencies cannot be considered disinterested actors (Wilson, 1989). Agencies can be influenced by actors such as interest groups, citizens, and legislatures, but they can also establish processes to reduce the influence that these actors may have over rulemaking. These potential influences are beyond the scope of this study but are important to consider.

Second, members of the public have two potential courses of action if they want to voice their opinions: They can participate in the rulemaking processes or they can contact their elected officials to lodge complaints during the rulemaking process, or both. If legislators were hearing numerous constituent complaints, we would expect to see input by elected officials as important to these rulemaking hearings, which we did not. This second caveat also assumes that the public knows about or is interested enough to participate. For reasons articulated above, this is unlikely.

Conclusion

This article presents findings related to the various information sources and perceptions of regulators and stakeholders regarding the influence of information in rulemaking, the role of stakeholders in rulemaking processes, and

the processes that may govern and dictate regulatory outcomes. The findings presented here are important to consider with regard to the role that regulators, regulated industry, and the public play in rulemaking. State-level rulemaking is, indeed, a pivotal process through which legislative mandates are turned into governing rules and is becoming increasingly important as federal policymakers are mired in conflict. Because this process is central to the governance of various resources, including renewable energy and livestock waste as analyzed in this study, the openness of such processes should be of concern to scholars and regulators alike. The role that the pre-draft processes play in the cases presented above seems to accomplish the goal of expediting rulemaking and highlighting important points of contention early in the process, but these processes also have the effect of marginalizing citizens and non-regulated stakeholders.

There are limitations to this study that are important to consider. The small number of states included in this study prevents us from being able to generalize the results presented here. Expanding this research to include a greater number of states would help to compare and confirm or disconfirm the results presented. Specifically, future studies should be designed to take into account variation in state transparency, professionalism of governing bodies (including legislatures and regulatory agencies), and the relative economic importance of the regulated industry. We selected on these same variables in this study, but by expanding the state sample and also the regulatory topics under investigation, future findings would be more robust.

In addition, this study focused on the perceived influence of information sources in rulemaking, as reported by regulators and other stakeholders in rulemaking. Although this is important in itself, in part due to the possibility that stakeholders may alter their strategies based on perceptions of opponents' influence, it would be useful to go beyond this measure and include a content analysis of draft rules, formal stakeholder statements, and final rules to understand where and how rules were altered based on stakeholder input. By including a larger sample of states and cases, it would also be possible to use surveys to solicit input from a greater number of actors in the regulatory process, therefore providing a greater degree of generalizability of findings to multiple stakeholder categories, states, and regulatory topics.

Finally, it is also important to tease out the difference between citizen comments and other non-industry stakeholder groups to a greater degree in further studies. As mentioned in the findings, interview participants often used the terms *public* and *advocacy groups* interchangeably. This seems to indicate an assumption on the part of actors that the public is being represented by other actors in the regulatory process. It would be useful to understand whether this assumption is shared by the advocates and the public.

Authors' Note

This article was originally prepared for presentation at the 2014 Midwest Political Association Annual Conference, Chicago, IL.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The authors thank the Center to Advance Research and Teaching in the Social Sciences (CARTSS) at the University of Colorado Boulder for helping to fund this project.

Notes

1. Throughout this article, the term *stakeholder* refers to individuals and groups from the public, scientific, advocacy, and regulated communities.
2. Throughout this article, alpha numeric codes are used to identify interview participants associated with quotations. The codes include the state, the case, and the subject identifier. For example, CO-RPS-1 is associated with the first interview conducted for the Colorado renewable portfolio standard case.
3. Core 37 included American Wind Association, City of Boulder, CO Solar Energy Industries Association, CO Renewable Energy Society, Panaero Corp., PV NOW, Vote Solar Initiative, and Western Resource Advocates.
4. Carolina Power & Light Company d/b/a Progress Energy Carolinas (Progress); Duke Power LLC d/b/a Duke Energy Carolinas, LLC; and Virginia Electric and Power Company d/b/a Dominion North Carolina Power (Dominion).
5. The term *sources of information* refers to individuals and groups that provide input—information—to regulators during their rulemaking processes. This information may include, but is not limited to, media reports, scientific and economic studies, and public comment.
6. Common procedures for public outreach typically include notification to predetermined lists of interested parties from similar regulatory cases as well as the regulated industries, which can limit the degree of participation by the general public.

References

Allen, P. (1998). Public participation in resolving environmental disputes and the problem of representativeness. *Risk: Health, Safety and Environment*, *9*, 297-308.

Beierle, T. (1998). *Public participation in environmental decisions: An evaluation framework using social goals* (Discussion Paper No. 99-06). Washington, DC: Resources for the Future Press.

Bourgeois, L. J., III, & Eisenhardt, K. M. (1988). Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. *Management Science*, *34*, 816-835.

Brady, H., Verba, S., & Schlozman, K. L. (1995). Beyond SES: A resource model of political participation. *American Political Science Review*, *89*, 271-294.

Cheit, R. (1990). *Setting safety standards: Regulation in the private and public sectors*. Berkeley: University of California Press.

Cropper, M. L., Evans, W. N., Berardi, S. J., Dulca-Soares, M. M., & Portney, P. R. (1992). The determinants of pesticide regulation: A statistical analysis of EPA decision making. *Journal of Political Economy*, *100*, 175-197.

Cuellar, M.-F. (2005). Rethinking regulatory democracy. *Administrative Law Review*, *75*, 412-499.

Eisenhardt, K. M. (1989). Building theories from case study research. *The Academy of Management Review*, *14*, 532-550.

Eisner, M. A., Worsham, J., & Ringquist, E. J. (2000). *Contemporary regulatory policy*. Boulder, CO: Lynne Rienner Publishers.

Environmental Protection Agency, Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision; Final Rule § 9 (2008).

Fischer, F. (2005). *Citizens, experts, and the environment: The politics of local knowledge*. Durham, NC: Duke University Press.

Furlong, S. R. (1997). Interest group influence on rule making. *Administration & Society*, *29*, 325-347.

Golden, M. (1998). Interest groups in the rule-making process: Who participates? Whose voices get heard? *Journal of Public Administration Research and Theory*, *8*, 245-270.

Hampton, G. (1999). Environmental equity and public participation. *Policy Sciences*, *32*, 163-174.

Healy, R. G., & Ascher, W. (1995). Knowledge in the policy process: Incorporating new environmental information in natural resources policy making. *Policy Sciences*, *28*, 1-19.

Hill, L. B. (1991). Who governs the American Administrative State? A bureaucratic-centered image of governance. *Journal of Public Administration Research and Theory*, *1*, 261-294.

Jewell, C., & Bero, L. (2007). Public participation and claimsmaking: Evidence of utilization and divergent policy frames in California's ergonomics rulemaking. *Journal of Public Administration Research and Theory*, *17*, 625-650.

Kerwin, C. M., & Furlong, S. R. (1992). Time and rulemaking: An empirical test of theory. *Journal of Public Administration Research and Theory*, *2*, 113-138.

Korfmacher, K. S., & Koontz, T. M. (2003). Collaboration, information, and preservation: The role of expertise in farmland and preservation task forces. *Policy Sciences*, *36*, 213-236.

Layzer, J. A. (2012). *The environmental case: Translating values into policy*. Washington, DC: CQ Press.

Leach, W. D., & Sabatier, P. A. (2005). Are trust and social capital the keys to success? In P. A. Sabatier (Ed.), *Swimming upstream: Collaborative approaches to watershed management* (pp. 233-258). Cambridge, MA: MIT Press.

Lind, A. E. (1988). *The social psychology of procedural justice*. New York, NY: Plenum Press.

Lind, A. E., Kanter, R. M., & Early, P. C. (1990). Voice, control, and procedural justice: Instrumental and noninstrumental concerns in fairness judgements. *Journal of Personality and Social Psychology*, *59*, 952-959.

Maguire, L. A., & Lind, A. E. (2003). Public participation in environmental decisions: Stakeholders, authorities, and procedural justice. *International Journal of Global Environmental Issues*, *3*, 133-148.

Mendelson, N. A. (2007). Regulatory beneficiaries and informal agency policymaking. *Cornell Law Review*, *92*, 397-452.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: SAGE.

Montini, T., Mangurian, C., & Bero, L. (2002). Assessing the evidence submitted in the development of a workplace smoking regulation: The case of Maryland. *Public Health Reports*, *117*, 291-298.

Nixon, D., Howard, R., & DeWitt, J. (2002). With friends like these: Rule-making comment submissions to the securities and exchange commission. *Journal of Public Administration Research and Theory*, *12*, 59-76.

North Carolina Utilities Commission (2007). *In the Matter of Rulemaking Proceeding to Implement Session Law 2007-397: Order Issuing Proposed Rules for Comment*. Docket No. E-100, Sub. 113.

Potoski, M. (2004). The regulation dilemma: Cooperation and conflict in environmental governance. *Public Administration Review*, *64*, 152-163.

Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: SAGE.

Sabatier, P. A., & Jenkins-Smith, H. C. (Eds.). (1993). *Policy change and learning: An advocacy coalition approach*. Boulder, CO: Westview Press.

Schlozman, K. L., Verba, S., & Brady, H. E. (1995). Participation's not a paradox: The view from American activists. *British Journal of Political Science*, *25*, 1-36.

Shapiro, S. (2002). Speed bumps and roadblocks: Procedural controls and regulatory change. *Journal of Public Administration Research and Theory*, *12*, 29-58.

Shapiro, S., & Borie-Holtz, D. (2013). *The politics of regulatory reform*. New York, NY: Routledge.

Steeves, M. (2002). The EPA's proposed CAFO regulations fall short of ensuring the integrity of our nation's waters. *Journal of Land Resources and Environmental Law*, *22*, 367-397.

Teske, P. (2004). *Regulation in the States*. Washington, DC: The Brookings Institution.

U.S. Department of Energy. (2012). *Database of state incentives for renewables & efficiency: Rules, regulations & policies for renewable energy*. Retrieved

from http://ncsolarcen-prod.s3.amazonaws.com/wp-content/uploads/2014/11/Renewable-Portfolio-Standards.pdf

Verba, S., & Nie, N. H. (1972). *Participation in America: Political democracy and social equality*. Chicago, IL: University of Chicago Press.

Verba, S., Schlozman, K. L., & Brady, H. E. (1995). *Voice and equality in American politics*. Cambridge, MA: Harvard University Press.

Waterkeeper Alliance vs. EPA (2nd Cir. 2005).

West, W. F. (2004). Formal procedures, informal processes, accountability, and responsiveness in bureaucratic policy making: An institutional policy analysis. *Public Administration Review*, *64*, 66-80.

West, W. F. (2009). Inside the Black Box: The development of proposed rules and the limits of procedural controls. *Administration & Society*, *41*, 576-599.

West, W. F., & Raso, C. (2013). Who shapes the rulemaking agenda? Implications for bureaucratic responsiveness and bureaucratic control. *Journal of Public Administration Research and Theory*, *23*, 495-519.

Weston, C., Gandell, T., Beauchamp, J., McAlpine, L., Wiseman, C., & Beauchamp, C. (2001). Analyzing interview data: The development and evolution of a coding system. *Qualitative Sociology*, *24*, 381-400.

Wilson, J. Q. (1989). *Bureaucracy*. New York, NY: Basic Books.

Woods, N. (2009). Promoting participation? An examination of rulemaking notification and access procedures. *Public Administration Review*, *69*, 518-530.

Yackee, J. W., & Yackee, S. W. (2006). A bias towards business? Assessing interest group influence on the U.S. bureaucracy. *Journal of Politics*, *68*, 128-139.

Yackee, S. W. (2006). Sweet-talking the fourth branch: The influence of interest group comments on federal agency rulemaking. *Journal of Public Administration Research and Theory*, *16*, 103-124.

Yackee, S. W. (2012). The politics of ex parte lobbying: Pre-proposal agenda building and blocking during agency rulemaking. *Journal of Public Administration Research and Theory*, *22*, 373-393.

Yackee, S. W. (2013). Assessing regulatory participation by health professionals: A study of state health rulemaking. *Public Administration Review*, *73*, s105-s114.

Yin, R. K. (2003). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

Author Biographies

Deserai A. Crow is an assistant professor at the University of Colorado Boulder in the environmental studies program and the Center for Science & Technology Policy Research. She earned her PhD in 2008 from Duke University's Nicholas School of the Environment and Earth Sciences. She holds a BA in journalism from the University of Colorado Boulder and a master's of public administration from the University of Colorado Denver. Her research interests include the role of stakeholders, information, and science in local and state-level environmental policy, particularly in the American West. Her work has appeared in *Policy Studies Journal*, the *Review of Policy Research, Newspaper Research Journal*, and *Public Organization Review.*

Elizabeth A. Albright is an assistant professor of the Practice in the Nicholas School of the Environment at Duke University. Prior to the Nicholas School, she was an instructor at Loyola University Chicago. She earned her PhD in 2009 from Duke University's Nicholas School of the Environment and Earth Sciences. She holds a BA in chemistry from the College of Wooster and an MS in environmental science and master's of public affairs in environmental policy from the School of Public and Environmental Affairs (SPEA) at Indiana University. Her research in environmental policy, extreme events, and stakeholder participatory practices has been funded by the National Science Foundation and the U.S. Fulbright Commission. Her work has been published in the *Policy Studies Journal, Marine Pollution Bulletin*, and *Forest Ecology and Management*.

Elizabeth Koebele is pursuing her doctoral degree in environmental studies at the University of Colorado Boulder. She holds BAs in English literature and secondary education from Arizona State University, and an MS in environmental studies from the University of Colorado Boulder. Her research focuses on the collaborative governance of water resources in the western United States. She is also conducting research on the role of information in wildfire mitigation, environmental regulatory processes, and college-level science education.