DISSERTATION

SETTING THE RECORD STRAIGHT: INTEREST GROUP INFLUENCE ON CLIMATE POLICY AT THE ENVIRONMENTAL PROTECTION AGENCY

Submitted by

Jeffrey J. Cook

Department of Political Science

In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Spring 2017

Doctoral Committee:

Advisor: Robert Duffy

Charles Davis Sandra Davis Stephan Kroll Sara Rinfret Copyright by Jeffrey J. Cook 2017

All Rights Reserved

ABSTRACT

SETTING THE RECORD STRAIGHT: INTEREST GROUP INFLUENCE ON CLIMATE POLICY AT THE ENVIRONMENTAL PROTECTION AGENCY

It is clear that interest groups are involved in the rulemaking process at the Environmental Protection Agency (EPA), but it has been difficult to determine whether certain groups are more influential on outcomes. This debate persists because the literature illustrates that groups can be influential at discrete stages in the process, but the field rarely analyzes the entire rulemaking process. This uncertainty has spurred controversy regarding the EPA's recent climate change regulations. Therefore, this dissertation conducted three case studies of recent climate change regulations and addresses three questions. First, what, if any, strategies did interest groups use to influence the content of these climate change rules? Second, did these strategies translate into influence? Third, what can these climate change case studies tell us about the role of interest groups in other controversial rules at the EPA, and across the bureaucracy more broadly? Ultimately, I argue that interest group influence was generally balanced across each of the three case studies. These findings then serve as the basis to develop my Regulatory Spheres of Influence Framework. The framework illustrates that given the nature of EPA rulemakings, it is very difficult for one side either business or environmental to dominate the process in highly controversial rules. It is possible that these conclusions track to other controversial rules across the bureaucracy and I note that my framework could be applied in other contexts to test this assertion.

ACNOWLEDGEMENTS

First, I would like to thank all the interviewees that participated in this study, without them this work would not have been possible. I also wish to thank my advisor Dr. Robert Duffy for helping me complete the requirements of my degree and this dissertation. Bob offered just the right amount of oversight to ensure that I crossed the finish line, while offering me immense flexibility to balance life, work, and school. I would also like to thank Dr. Sara Rinfret for reading numerous drafts of this dissertation, as well as Drs. Sandra Davis, Chuck Davis, and Stephan Kroll for their helpful and thorough comments.

Second, I am forever indebted to the Political Science Department and Colorado State University that together have offered me every opportunity to succeed. The department's excellent professors broadened my knowledge base and skill set to build a better, more comprehensive dissertation. In addition, the university's immense educational and research resources allowed me to develop my research idea into a polished work.

Finally, I would like to thank my department spouse, Megan DeMasters, for her support and encouragement throughout this process as well as the entire fall 2012 cohort. More broadly, I would like to thank my friends and family for constantly asking me if I am done with school yet. You all offered the best form of encouragement, so I could finally answer: "Yes, I am done and thanks for asking!" Without all of you, I do not believe I would have ever made it this far.

TABLE OF CONTENTS

| ABSTRACT | ii |
|--|-----|
| ACNOWLEDGEMENTS | iii |
| Chapter One | 1 |
| The EPA Rulemaking Process and Interest Group Presence | 3 |
| Chapter Plan | 9 |
| Chapter Two | 13 |
| Examining the Role and Influence of Interest Groups in the United States | 13 |
| The Role and Influence of Interest Groups in Rulemaking | 15 |
| Pre-proposal Interest Group Involvement and Influence | 18 |
| Assessing Influence: Frame Analysis | 19 |
| Notice and Comment Interest Group Involvement and Influence | 27 |
| Assessing Influence: Comment Analysis | 28 |
| Rule Finalization Interest Group Involvement and Influence | 30 |
| Where do we go from here? | 32 |
| Chapter Three | 34 |
| Case Selection | 34 |
| Methodology | 36 |
| Qualitative Data Collection and Analysis | 38 |
| Archival Analysis | 38 |
| Semi-structured Interviews | 38 |

| Frame Analysis | 40 |
|---|-----|
| Quantitative Public Comment Analysis | 42 |
| Building the Dataset | 43 |
| Data Analysis | 45 |
| Comparing Findings and Making Conclusions about Overall Influence | 46 |
| Methodological Limitations | 47 |
| Chapter 4 | 49 |
| Case Histories | 49 |
| The Tailoring Rule | 53 |
| The 2012 CAFE Standard Rule | 56 |
| The 2012 Oil and Gas Rule | 58 |
| Interest Group Strategies during the Pre-proposal Stage | 61 |
| Interest Group Framing and Perceived Impact | 62 |
| Instructive | 65 |
| Expertise | 67 |
| Fiscal Feasibility | 71 |
| Legal | 75 |
| Overall Influence during the Pre-Proposal Stage | 79 |
| The Tailoring Rule | 80 |
| Oil and Gas Rule | 82 |
| 2012 CAFE Standards Rule | 8/1 |

| Summary Contributions | 85 |
|---|---|
| Chapter 5 | 89 |
| Interest Group Strategies during Notice and Comment Stage | 89 |
| Interest Group Influence on Notice and Comment Stage | 91 |
| The Tailoring Rule | 92 |
| The Oil and Gas Rule | 99 |
| 2012 CAFE Standards Rule | 105 |
| Integrating and Explaining the Results | 113 |
| Summary Contributions | ### A strategies during Notice and Comment Stage ### 8 strategies during Notice and Comment Stage ### 9 ### |
| Chapter 6 | 118 mg Notice and Comment Stage |
| Differences in Influence across the Pre-proposal and Notice and Comment Stage | 120 |
| Value of Pre-proposal Stage Involvement | 121 |
| Value of Notice and Comment Stage Involvement | 125 |
| Modeling Influence across the Stages of the Process | 127 |
| Access to the Circles of Influence | 131 |
| Role of the Courts | 131 |
| Presidential Priorities | 133 |
| Accounting for the EPA Process | 134 |
| Accounting for Interest Group Characteristics | 136 |
| Establishing a Model of Interest Group Influence on Rulemaking | 141 |
| Is One Side Likely to Win? | 142 |

| Concluding Thoughts and Outlook | 144 |
|---------------------------------|-----|
| References | 149 |
| Appendix A | 160 |
| Appendix B | 162 |
| Appendix C | 164 |
| Appendix D | 166 |
| Appendix E | 172 |
| Appendix F | 176 |

Chapter One

Introduction: Climate Policy, the EPA and Interest Group Influence

When President Obama took office in January 2009, he ushered in a new unified government under the Democratic Party (Weisman & Meckler, 2008). Prospects for the passage of climate change legislation in the 111th Congress seemed bright, which were buoyed by the House of Representatives passage of the American Clean Energy Security Act (ACES) in the summer of 2009 (Broder, 2009a). Facing an uncertain future in the Senate, the Obama administration threatened regulatory action to pressure the Senate to pass ACES (Broder, 2009b; Tally, 2009).

Lending credibility to this threat, the Environmental Protection Agency (EPA) finalized its Greenhouse Gas Endangerment Finding in 2009. This regulation confirmed that carbon dioxide, and five other greenhouse gases (GHGs) including methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride were air pollutants that harmed the public health and welfare under the Clean Air Act (EPA, 2009b). This finding did not by itself impose regulatory requirements upon industry, but it was a prerequisite for the EPA to regulate GHGs from motor vehicles and point sources, such as large manufacturing facilities and power plants (EPA, 2015a).

It was not clear at the time that the Obama administration and the EPA would pursue further regulatory action, as the notion that the Senate might pass ACES or some other climate change legislation was not farfetched. Democrats had a filibuster proof 60 seat majority after Senator Arlen Specter (PA) switched parties (Montopoli, 2009) and Democrat Al Franken won the contested Senate race in Minnesota (Bloomberg, 2009). But, by the summer of 2010, Senate

Democrats announced they would not vote on a climate change bill largely because they did not believe they had the votes to pass it (Hulse & Herszenhorn, 2010). Democrats then lost a net 63 seats in the House and 6 in the Senate during the 2010 midterm elections (The New York Times, 2010a; 2010b). These losses in the House ushered in a new Republican majority that effectively ended the possibility for congressional action on climate policy (Vig & Kraft, 2013).

Given this political reality, the Obama administration turned to the EPA to carry out its climate agenda. In 2010, when it became clear Congress would not act on climate, the EPA finalized three GHG rules including the Mandatory Reporting of Greenhouse Gases Rule (Reporting Rule), the first update to the Corporate Average Fuel Economy Standards (2010 CAFE Standards Rule), and the Greenhouse Gas Tailoring Rule (Tailoring Rule). In 2012, the EPA published the New Source Performance Standards for the Oil and Gas Sector (Oil and Gas Rule) and a second update to the CAFE Standards (2012 CAFE Standards Rule). Collectively these rulemakings addressed carbon emissions from the transportation and industrial sectors which are the second and third largest contributors of carbon emissions across the economy (EPA, 2016a). In addition, the regulation of the oil and gas sector specifically addressed the largest contributor of a particularly potent GHG, methane (EPA, 2016a).

The publication of these rules was met with a wave of criticism from congressional Republicans who argued that the EPA was too beholden to environmental interest groups during the drafting of these rules, resulting in regulation that was unduly burdensome on businesses (U.S. House of Representatives Committee on Oversight and Government Reform, 2012; Davenport, 2014; Chemnick, 2014). The concern that certain interest groups unduly influence EPA regulation is not unique to climate change. In fact, the same allegations were made against the George W. Bush administration. At that time, the EPA was often criticized by

environmentalists for listening too closely to business interests (Klyza & Sousa, 2013). With the Trump administration entering office with a pro-business bent (Davenport, 2017), questions about the role of business interests in shaping outcomes is likely to appear again. This controversy has persisted because the literature has not clarified the scope of interest group influence on regulatory outcomes at the EPA and in particular for controversial rules such as these climate change regulations.

Therefore, this dissertation addresses three questions. First, what, if any, strategies did interest groups use to influence the content of these climate change rules? Second, did these strategies translate into influence? Third, what can these climate change case studies tell us about the role of interest groups in other controversial rules at the EPA, and across the bureaucracy more broadly? The answers to these questions help to inform the Regulatory Spheres of Influence Framework I develop to explain interest group influence across the entire rulemaking process. I then use this framework to clarify whether certain groups are likely to disproportionately influence EPA actions going forward, particularly as the Trump administration begins.

The EPA Rulemaking Process and Interest Group Presence

The general concern that some interest groups might improperly influence EPA regulations stems from the fact that interest groups are heavily involved in the rulemaking process. Some of this access is authorized by the Administrative Procedure Act of 1946 (APA), which requires agencies to publish a notice of a proposed rulemaking, provide a public comment period, and respond to those comments (5 U.S.C. §553).

Outside of these requirements, the APA largely grants agencies the authority to structure their own rulemaking procedures. Subsequently, the EPA has devised its own process that

unfolds over three basic stages the pre-proposal, notice and comment, and rule finalization (Wagner, Barnes, & Peters, 2010; Rinfret, 2011a). The EPA includes significant interest group input outside of the required notice and comment period (Kamieniecki, 2006; Wagner, et al., 2010; Rinfret, 2011a; Rinfret & Furlong, 2012). Thus, I briefly discuss the EPA process and the key access points for interest groups by stage as summarized in Figure 1.

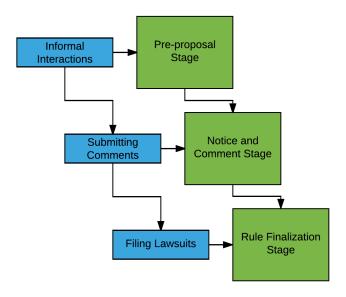


Figure 1. Stages of the EPA Rulemaking Process and Key Interest Group Access Points

Stage 1, or the pre-proposal stage, encompasses both the agenda setting process as well as
the drafting of the proposed rule (Kerwin and Furlong 2011). Though the EPA has some
discretion to determine which rules to produce, the agency cannot regulate whatever it wishes.

The agency must first demonstrate that it has statutory authority to act. In the air quality arena,
this authority is often derived from the Clean Air Act, which is the case with climate change
policy. The EPA has many regulatory requirements under the Clean Air Act and lacks sufficient

¹ It is important to note that the leading rulemaking scholars Kerwin and Furlong (2011) document eleven stages in the rulemaking process. They concede that the rulemaking process does not always follow this sequential process and rather "some stages may be undertaken simultaneously, others reversed in order…and not all apply in all cases" (pg. 85). As a result, others typically condense them into three stages. See Rinfret, 2011c and the *Unified Agenda* which uses a similar schematic to that used here to differentiate between rules including the pre-rule, proposed rule, and final rule stage. See: http://www.reginfo.gov/public/jsp/Utilities/faq.jsp.

resources to carry out all of its legislative mandates (Rinfret & Furlong, 2011). Thus, for a rulemaking to reach the EPA agenda it must compete with other possible rules. Many rules reach the agenda of the agency via court orders that require the agency to complete the rule in a specified time (Golden 2003).

Even if the EPA receives a court order to commence a rulemaking, this does not assure the agency will begin the process immediately. Rather, agencies still have some ability to prioritize which rulemakings they carry out both those that are court ordered and those the agency decides to produce (Acs, 2015). This is true at the EPA, where politically appointed administrators have discretion to determine which rules should be completed including court ordered rules (Furlong, 1995). EPA administrators prioritize rules based upon environmental significance, impact on the economy, level of external interest, significance of policy or scientific issue, complexity, and effect on other agency programs (EPA, 2016b). Those rules that are ultimately selected for completion are published in the EPA's annual regulatory plan that documents the priority rules that the agency reasonably expects to complete that year (EPA, n.d.).

In the event a rule reaches the agenda and is published in the regulatory plan, the EPA issues a commencement approval and assigns an office to conduct the rulemaking (McGarity, 1991). That office then charters a workgroup to compile all the technical and scientific data required to produce a rule. These workgroups can conduct shuttle diplomacy or reg neg lite at this stage (Lubbers, 2008; Rinfret, 2011a).² Shuttle diplomacy refers to agency rule writer efforts to informally reach out to stakeholder groups via personal conversations, emails, and/or meetings to discuss the contents of a proposed rule and request input. The goal of this stakeholder process

-

² I use the terms shuttle diplomacy and reg neg lite synonymously. Lubbers (2008) describes reg neg lite as the agency efforts to encourage informal stakeholder participation in rulemaking processes.

is to find consensus regarding the contents of a proposed rule and to tap the technical expertise of stakeholders (Lubbers, 2008; Rinfret, 2011a).

Though the extent of stakeholder engagement is dependent upon the context (level of external interest and impact) of a given rule, the agency will discuss proposed rules with at least some stakeholders at this time (Wagner et al., 2010). More rarely, the agency may publish an Advanced Notice of Proposed Rulemaking (ANPRM) in the *Federal Register* and include a formal public comment period during the pre-proposal process to solicit more formal stakeholder participation. The agency can then use that information to help them produce a proposed rulemaking, or they can decide not to act (Kerwin & Furlong, 2011).

If a rule is considered economically significant (impact of \$100 million or more) the agency must also produce a draft regulatory impact statement that documents the costs and benefits of the rule (Kerwin & Furlong, 2011). Once the EPA completes the impact statement and the proposed rule, the documents are submitted for internal political appointee review (McGarity, 1991). If political appointees sign off and the rule is economically significant, it is sent to the Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget (OMB). OIRA is supposed to review rules within 90 days, but EPA rulemakings are more commonly delayed than other agencies' rules (Kerwin & Furlong, 2011). If OIRA approves the rule, the agency can submit the rule for the final interagency review process (also managed by OIRA) where other federal agencies with interest in an EPA rule can comment on the proposal.

Upon completion of interagency review, the Notice and Comment stage begins when the agency publishes a Notice of Proposed Rulemaking (NPRM) in the *Federal Register*. This

2

³ OIRA can also review rules that do not meet this \$100 million dollar threshold if they choose to do so.

⁴ Balla, Deets, and Maltzman (2011) argue that this delay may be in part a function of the fact that stakeholders can request meetings with OMB to state their case about the rule at this stage in the process.

publication opens the 30-90 day public comment period. The agency typically holds public hearings in association with a rulemaking during this time. Submitting public comments on the rule is the most frequent strategy by interest groups to influence the outcome of the proposed rule at this stage in the process (Kerwin & Furlong, 2011) After the public comment period closes, the agency reviews and responds to the comments. The agency then makes revisions to the rule based upon the comments and finalizes a Response to Comment (RTC) document that tracks all the rule changes made in response to commenters. Once the agency completes this process, the rule is submitted for final review to OIRA.

If OIRA approves the rule, Stage 3 begins, when the agency publishes the Final Rule in the *Federal Register*. After this publication, stakeholders can, and do, file petitions for reconsideration with the agency. The agency may deny the petitions, or change the rule. If denied, stakeholders can file formal lawsuits and the agency then must address those concerns. If the rule survives litigation, it has the effect of law (Kerwin & Furlong, 2011).

It is clear that interest groups have significant access to the EPA rulemaking process, but the question remains: are some groups more influential than others in shaping rule content? Those scholars that have looked at this question offer conflicting views on the subject. Rinfret (2011a) concluded that interest group influence is balanced at the EPA, while others (Golden, 1998; Wagner et al., 2010) argued that business groups are most influential. Though disconcerting, these varying conclusions may be a function of the research approach taken by each researcher. In general, most of the literature evaluates a particular stage of the rulemaking process to evaluate stakeholder influence: Rinfret (2011a) focused on the pre-proposal stage, while Golden (1998) evaluated the notice and comment stage. This approach may be leading to

⁻

⁵ The EPA also responds to the comments that did not persuade the agency to make changes to the rule in this document.

the differing conclusions and this has not gone unnoticed by researchers who have concluded a more complete analysis of stakeholder influence requires tracking interest group activities across the rulemaking process (Kamieniecki, 2006; West, 2009; Rinfret, 2011a; 2011b; Yackee, 2012).

In line with this sentiment, Wagner et al. (2010) evaluated interest group influence over the complete course of the EPA rulemaking process. In the 90 rules they analyzed business groups dominated the process from start to finish in terms of participation. They also illustrated that business groups were most influential during the notice and comment stage. Based upon these findings, they reasoned that the preponderance of evidence suggests regulated interests are most influential across the process. Though Wagner et al. (2010) offer some interesting findings, there are two key cautions against accepting these conclusions for all EPA rules. First, the literature illustrates that participation, or access, is not sufficient to explain influence (Furlong, 2007; Rinfret & Furlong, 2011). Wagner et al. (2010) did not conduct interviews with interest group participants particularly during the pre-proposal process, which limits their ability to draw conclusions on influence (Rinfret, 2011c). Second, this study is focused on more typical, less controversial rules at the EPA. The rules Wagner et al. (2010) studied received, on average, 39 comments which is far lower than the controversial climate rules under review in this study. Shapiro (2013) has illustrated that Wagner et al.'s (2010) conclusions, though valuable for explaining uncontroversial rulemaking processes, may not carry over to controversial rules that have significant economic impact and many public comments. Shapiro (2013) demonstrated that the impact of interest groups may differ in controversial rules, and these rules warrant their own analysis.

Therefore, this dissertation addresses concerns regarding the role of interest groups on climate policy, while also generating a Regulatory Spheres of Influence Framework for

evaluating the role of interest groups in controversial rulemakings at the EPA. This serves two goals, one to clarify the scope of interest group activity within the climate change space, while developing a framework that can be applied to understand the magnitude of interest group influence in other controversial rules at the EPA and potentially across the bureaucracy.

To serve these purposes, I conduct three case studies of climate change rulemakings: the Tailoring Rule, the Oil and Gas Rule, and the 2012 CAFE Standards Rule. For each case I relied upon both primary data derived from personal interviews with interest groups and agency personnel and archival documents associated with each rulemaking. I then use this data to generate my conclusions regarding both the role of interest groups in these climate change regulations and the scope of their collective and individual influence.

Chapter Plan

To address questions of interest group influence on controversial rules this dissertation unfolds in the following stages. Chapter 2 lays out the interest group literature as it relates to policymaking and rulemaking in particular. This chapter illustrates that the field has focused on evaluations of interest group activities during discrete stages in the rulemaking process. This research reveals that depending on the stage of the process interest groups will use different strategies to influence the agency. The conclusions of this body of research serve as the foundation to build a framework of interest group influence that addresses the entire rulemaking process. Finally, this chapter ends by clarifying the important gap in the literature as it relates to interest group strategies and influence in controversial rulemakings. Filling this gap in our understanding of interest group influence is important for clarifying the role of interest groups in these climate change rulemakings and potentially other controversial rules across the bureaucracy.

Because interest groups use varying strategies to influence the agency, researchers have used varying methodologies to analyze influence. Chapter 3 outlines my case study-based approach that employs semi-structured interviews, and archival document analysis to explain the role and influence of interest groups across the rulemaking process. This chapter also clarifies the controversial nature of these climate change rulemakings in relation to more "normal" EPA rulemaking processes. I end this chapter by documenting my data analysis processes for ease of replication.

Chapter 4 begins by tracking the history of each of the climate change rules from start to finish. From this foundation, the chapter focuses on the strategies interest groups employed to influence the EPA during the pre-proposal stage of the process. This chapter illustrates the importance of analyzing interest group activities during agenda setting along with their efforts to shape the language of the draft rule. Simply put, in the Oil and Gas Rule environmentalists set the agenda for the rule and then shaped its outcome during informal interactions with agency personnel. In the other two cases, environmental interests and business interests influence was more balanced in part because both sides use technical arguments related to the expertise frame to influence the agency. Thus, it would appear that influence may be balanced or slightly tipped towards environmentalists at this stage in the process.

Chapter 5 then evaluates the strategies of interest groups within the notice and comment stage of the process. At this stage it is both evident that business interests participated more than environmental interests and they received more rule changes as a result of their participation.

This influence is manifested through the submittal of public comments, and in each of the cases the EPA made changes to the rule in response to certain group's comments. Though business interests are the most influential at this stage in the process, this chapter goes further to analyze

why some interests were granted rule changes as compared to others. I find that those groups that offer more recommendations, regardless of group type, are more likely to receive a rule change than other groups. Therefore, analyses of interest group activities during the notice and comment stage should include an analysis of the specific content of an interest group's comment to clarify whether they are likely to influence the EPA.

Chapter 6 compares my findings from the pre-proposal and notice and comment stages to determine if some groups were more influential on outcomes. Overall, I assert that interest groups are more influential earlier in the process than later. This is not to suggest, however, that participation at later stages in the process is not useful. All of the cases illustrate that interest groups can exert influence throughout the stages of the process, but the scope of this influence is likely to decrease as the stages of the process unfold.

This conclusion serves as the basis to generate my concentric circles concept for explaining interest group influence on controversial rules. This structure reflects my argument that interest groups are more likely to influence a rule's content earlier in the process than later. Though interest groups can influence agency actions throughout the process, they do not operate in a vacuum. Rather, other factors such as the EPA rulemaking process, presidential priorities, and the courts can also impact interest group presence and influence. Thus, I incorporate these factors into my broader Regulatory Spheres of Influence Framework to illustrate the scope and impact of interest group influence. I argue that this framework should be applied in other contexts to offer a more complete assessment of stakeholder influence in controversial rulemakings at the EPA and the bureaucracy in general.

Finally, I conclude that interest group influence was generally balanced across these three rulemaking processes. These conclusions are consistent with the broader interest group literature

from the elite pluralist perspective suggesting that a wide variety of interest groups influence policy outcomes. My resulting framework of influence illustrates why these conclusions may be supported in other controversial rules at the EPA as well. This is because an interest group must win at each stage in the regulatory process to control the outcome of a rulemaking. This is challenging given the more inclusive rulemaking process the EPA employs along with the role of external players such as the president and the courts. It is also possible that these conclusions track to other controversial rules across the bureaucracy and I note that my framework could be applied in other contexts to test this assertion.

Given that all three of these rules were carried out under the Obama administration the question is will these conclusions hold up during the Trump administration. Certainly President Trump has a different perspective on environmental policy than that of Obama and will attempt to steer policy in a different direction. Nevertheless, the same constraints will be placed on the Trump administration EPA as was the case for Obama. Environmental groups and the courts can influence EPA activity just as much, if not more than, the president. As a result, Trump may struggle to carry out his deregulatory agenda at the EPA.

Chapter Two

Examining Interest Group Influence within Rulemaking

The critical question at the heart of this dissertation: are some groups more influential than others in shaping policy, is not unique to research on the EPA, environmental policy, or regulatory policy more generally. Rather, scholars have suggested evaluating the role of interest groups is critical to having a more complete understanding of all policymaking in the United States (Baumgartner et al., 2011; Kerwin, Furlong, and West, 2011; Rinfret & Furlong, 2012; Gilens & Page, 2015). Many have evaluated the role of interest groups in the congressional context and this research has informed our understanding of how interest groups participate and interact within the regulatory context. To situate this dissertation within that broader literature, this chapter begins with a brief discussion of the interest group literature as it relates to American policymaking broadly. It then focuses on the debate regarding the role of interest groups in rulemaking.

Examining the Role and Influence of Interest Groups in the United States

The emphasis on the role of interest groups in United States policymaking is derived from both the observation that interest groups participate in the process and the conclusions of political scientists that policymaking in the United States is best described via group theory (Bosso, 1987). The field agrees that policy outcomes are largely a function of the interactions between interest groups and the institutions of government, but disagree on the extent that certain interests disproportionately impact results.

This disagreement is reflected in debates regarding the validity of the pluralist perspective on interest group influence on United States policymaking. The foundation of the

pluralist perspective is Madison's (1787) conclusion that interest groups would proliferate in the United States and no one set of interest groups would dominate policymaking. The idea was that over time the public would continue to join groups as new issues arise. Academics such as Truman (1951) built upon this conclusion and argued that interest groups have proliferated and the power to make policy decisions is widely dispersed. Thus, a variety of groups must work together to generate enough support for policy change and these activities result in policy compromises that are more likely to generate policy outcomes in line with the public interest. As a result, this perspective argues that certain interest groups are unlikely to disproportionately influence outcomes.

Not all agreed with this perspective, some have argued that certain interest groups do dominate policy making. First, Bachrach and Baratz (1960) argued that certain groups can control the agenda and this can then influence policy outcomes. Thus, the pluralist perspective may hold true during open policy debates, but may not carry over to these agenda setting activities. Schattschneider (1960) went further and argued that most of the public does not join interest groups and the small fraction that do are disproportionately wealthy. As a result, the expectation that interest group competition would encompass all Americans was invalid, calling into question the notion that policy compromises would result in policy that was in the public interest.

Given these critiques of the pluralist perspective, Dahl (1960) devised the elite pluralist perspective. Dahl (1960) concluded that there are indeed a smaller set of elite interest groups that have the power to influence policy. However, there is no uniform set of elite interests driving policy, and coalitions of less affluent interests can and do achieve policy outcomes in their favor. For this perspective then, economic interests may be the most frequent players, but the winning

coalition within any given policy area is likely to be different as a result of bargaining. Thus, evaluating which interest groups influence the outcome requires an evaluation of the competition, bargaining, and coalition building between groups.

With the significant proliferation of interest groups in the 1970's, researchers' conception of the role of interest groups in policymaking has continued to evolve. Scholars have concluded that a wider variety of groups participate in policymaking than was the case previously, but the wealthy are still disproportionately represented (Baumgarter and Jones, 1993; Baumgartner et al. 2009; Gilens & Page, 2015). In terms of policy outcomes, in some cases the elite pluralist perspective may be true, while in others more limited, typically economic interests' priorities may carry the day (Baumgartner et al. 2009; Gilens & Page, 2015). These research findings suggest that evaluating the role of interest groups in policymaking requires an analysis of the policy area, the venue, and the activities of the groups that participate throughout the process.

The Role and Influence of Interest Groups in Rulemaking

All of the aforementioned literature focuses on the role of interest groups in congressional policymaking. More recent work has applied these theoretical concepts to the rulemaking process as a means to gauge interest group impact (Golden, 1998; Baumgartner and Leech, 2001; Eisner et al., 2006; Kerwin et al., 2011). In her seminal work, Golden (1998) examined the role of interest groups in rulemaking by applying concepts related to the aforementioned interest group perspectives. She concluded that business interests are the most likely to participate in rulemaking processes, but public interest groups also participated. In addition, she did not find a dominant set of interests that always participated across rulemakings. For example, she found that many groups that participate are also outside of the Washington D.C. beltway, illustrating that a wide variety of organizations attempt to influence regulatory

outcomes at this stage (Golden 1998). These findings are in line with the broader congressional literature and subsequent rulemaking scholarship has generally confirmed these findings (Kamieniecki, 2006; Yackee and Yackee, 2006; Wagner et al. 2010).

Golden (1998) went further in her analysis and noted that business interests received the most rule changes. Despite this conclusion, Golden asserted that these had minimal impacts on the outcome in each case, and thus overall interest groups are largely not influential on outcomes. This is not in line with congressional arguments, and subsequent work on the rulemaking process also discredits this assertion. For example, a recent survey of interest groups showed that over 80% of respondents "considered themselves able to influence rulemaking on a regular basis" (pg. 213). The field has also empirically corroborated these claims (Kamieniecki, 2006; Yackee & Yackee, 2006; West, 2009; Kerwin et al., 2011; Rinfret, 2011a; 2011b; 2011c; Rinfret & Furlong, 2012). These conclusions in support of interest group influence are also consistent with the broader literature (Baumgartner et al., 2009; Gilens and Page, 2015). As such, the literature has moved on to the question of which interest groups are influential on outcomes and at what stage in the process.

To both understand the strategies interest groups employ during the rulemaking process, and more importantly gauge which might be most influential, Kerwin and Furlong (2011) have surveyed interest groups directly since the 1990s. Table 1 outlines the most frequently cited tactics interest groups use to influence federal rules. Those tactics considered most effective by respondents are designated with an X in Table 1. Overall, coalition formation and informal contacts during the pre-proposal stage were considered the most effective. Submitting written comments and grassroots activities were also considered effective, though not as much as the aforementioned tactics (Kerwin & Furlong, 2011).

Table 1. Interest Group Tactics Employed to Influence Federal Rulemaking⁶

| Tactic | Considered Most Effective (X) |
|---|-------------------------------|
| Attend Hearings | |
| Forming Coalitions | X |
| Informal contacts with agency after notice | |
| Informal contacts with agency before notice | X |
| Mobilizing grassroots support | |
| Writing Comments | |

Though this type of interest group survey research is valuable, Leech and Baumgartner (1998) aptly note that survey data only gets us so far. It explains the tactics that interest groups employ in administrative policymaking, but the question remains "what are the impacts of various group lobbying tactics, and in which circumstances are they most useful" (Leech and Baumgartner, 1998; pg. 12). In other words, which of these strategies is more likely to result in influence over rules, and why?

Scholars have since addressed questions of influence largely by evaluating the role and activities of interest groups at discrete stages during the rulemaking process (pre-proposal and notice and comment). These works have often not connected their findings to other stages of the process, or the broader field, making it difficult to develop a coherent theoretical framework (Kamieniecki 2006; Yackee & Yackee, 2006; West, 2009; Rinfret, 2011a; 2011b; 2011c; Yackee 2012). Despite this limitation, this literature offers significant insights regarding the role and impact of interest groups at discrete stages in the process. Therefore, I discuss the conclusions and methodological approach of these authors by stage of the process. This dissertation then

17

⁶ This table has been adapted from Kerwin & Furlong (2011).

builds upon this work to generate a methodology to evaluate influence across the stages of the process.

Pre-proposal Interest Group Involvement and Influence

A host of researchers have evaluated the involvement of interest groups in the preproposal stage and their resulting influence on outcomes (Hoefer & Ferguson, 2007; Naughton et al., 2009; West, 2009; Kerwin et al., 2011; Rinfret, 2011a; 2011b; 2011c; Yackee, 2012). First, there is some debate among scholars about which groups are most likely to participate at this stage. Some argue that a wide array of interest groups are involved (West, 2009; Rinfret, 2011a), while others assert that business groups are the most frequent participants (Wagner et al. 2010).

Nevertheless, the literature agrees that those interest groups that do participate can influence outcomes at this stage in the process, primarily through the use of the informal interaction tactic or strategy (Hoefer & Ferguson, 2007; Rinfret, 2011a). Coglianese (2007) documented that often information asymmetries exist between stakeholders and bureaucrats, where the former has information that could be valuable to the latter as they write rules. For instance, interest groups may have information regarding the cost of compliance, emerging technologies, and market trends that could support agency rulemaking processes. Hoefer and Ferguson (2007) argued that interest groups offer this information to regulators in exchange for policy insights. The information that interest groups choose to offer to the agency can then influence the content of the rule and those groups that have valuable information are likely to have greater access to agency personnel. Thus, Naughton et al. (2009) and West (2009) asserted that future work should evaluate interest groups use of the informal interaction strategy because it is likely through this pathway that interest groups have the most influence over regulatory outputs.

Assessing Influence: Frame Analysis

To analyze the effectiveness the informal interactions strategy, researchers have built upon the foundation of policy scholars who have argued that interest groups' strategic issue definition or framing activities are one means that they can influence policy outcomes. Framing refers to efforts by interest groups to describe problems and associated policy solutions (Stone, 1989; Rein & Shön, 1993; Rochefort & Cobb, 1994; Entman, 1996; Duffy, 2003; Lewicki, Gray, and Elliot, 2003; Pralle, 2006; Nie 2008).

The concept of framing was first posited by Goffman (1974), who argued that individuals structure social communication through the application of frames. Goffman noted that how one perceives a situation may influence how that individual will react. This seminal work has spurred further research into both how individuals frame issues and how this unfolds in the policymaking space. For example, Rein and Shön (1993) argued that framing is the process of "selecting, organizing, interpreting, and making sense of a complex reality" (p. 146). In regards to policymaking these authors reasoned that different frames provide a "perspective from which an amorphous, ill-defined, problematic situation can be made sense of and acted upon" (p. 146). However, there is not just one possible frame for a given policy issue, and Entman (1996) illustrated that individuals will use a certain frame "to select and highlight some features of reality and obscure others in a way that tells a consistent story about problems, their cause, moral implications, and remedies" (p. 77-8). Moreover, the frames that individuals use to understand a problem can be "altered over time, through intentional actions and interventions" (Lewicki et al., 2003, pg. 420). Thus, understanding how individuals frame issues is critical in understanding the positions they may take on a particular policy (Nesbit, 2009).

_

⁷ Stone (1988) refers to this process as the development of a causal story and this dissertation uses these terms interchangeably

Because problems can be framed in multiple ways by different stakeholders, issue framing is a contested process (Stone, 1989; Rochefort & Cobb, 1994; Entman, 1996; Pralle, 2006; Nie, 2008; Layzer 2012). Thus, groups use a range of strategies to both promote their favored frame and criticize other conceptions of the problem (Pralle, 2006). The group or coalition that successfully frames an issue can then shape the remainder of the policymaking process (Pralle, 2006).

Thus, understanding how groups frame issues, and which frames are used by policymakers to discuss a problem offers insights regarding which groups were most successful (Scheberle, 1994; Rochefort & Cobb, 1994; Pralle, 2006; Nie, 2008; Nisbet, 2009; Rinfret, 2011c). In the environmental context, academics have argued that it might be through the process of framing that interest groups are most influential on outcomes (Duffy, 2003; Pralle, 2006; Nie, 2008; Nisbet, 2009).

As a result, Lewicki et al. (2003) were some of the first to systematically evaluate how different groups frame issues across eight environmental conflicts and how these activities impacted the resolution of each dispute. Ultimately, these authors find that groups use a wide range of frames to both make sense of environmental conflicts and to offer a solution including: the identity, characterization, conflict management, whole story, social control, power, risk perception, and loss vs gain frames as illustrated in Table 2.

Table 2. Lewicki et al.'s Environmental Dispute Frames as compared to Rinfret's Rulemaking Frames

| Frames | | |
|---------------------|----------------|------------------|
| Lewicki et al. | Lewicki et al. | |
| Frames | Subframe | Rinfret's Frames |
| Identity | | |
| Characterization | | |
| Conflict Management | | |
| | Avoidance | |

| | Fact-finding | Expertise |
|-----------------|----------------------------|-------------|
| | joint problem solving | |
| | Expertise | Expertise |
| | Adjudication | |
| | appeal to political action | |
| | market economy | |
| | struggle/violence | |
| | other/grassroots | |
| Whole Story | | Instructive |
| Social Control | | |
| Power | | |
| | Authority/positional | |
| | Resources | Expertise |
| | Expertise | Expertise |
| | Personal | |
| | Coalitional | |
| | Sympathy | |
| | Force | |
| | Moral | |
| | Voice | |
| | | Fiscal |
| Risk Perception | | Feasibility |
| | | Fiscal |
| Loss vs gain | | Feasibility |

The *identity frame* captures a stakeholder's perception of their own role or perspective regarding a problem. How a person classifies themselves can influence whether they will participate in a dispute and to what extent. Individuals may identify with a particular demographic group such as gender, or an interest group such as environmentalists. If an issue represents a perceived threat to an individual's group identity can influence how they will perceive the problem and its possible solution.

The *characterization frame* reflects how participants identify or perceive other participants. For example an individual might perceive themselves as the victim of the problem, while their opponents may be the perpetrators. These perceptions can color how an individual

will perceive the problem, discuss it, and how willing they will be to work with others to solve the problem.

The *conflict management frame* then captures how a stakeholder believes a problem should be solved from avoidance to violence. Lewicki et al. (2003) developed nine conflict management subframes to categorize stakeholder perspectives tracking from least to most active including avoidance/passivity, fact-finding, joint problem-solving, expert authority should decide, adjudication, appeal to political action, appeal to market economy, struggle/sabotage/violence, and other/commonsense. In general, the subframe a stakeholder employs can influence how they will attempt to solve a given problem. Some can be employed in tandem and competing groups that employ similar conflict management frames may be able to find common ground. Those groups that find themselves at opposite sides of the spectrum, such as those that believe nothing should be done and those that believe only violence will solve the problem are unlikely to agree on a solution.

The *whole story frame* then refers to a stakeholder's effort to make sense of and summarize the extent of the given problem. This frame serves as the means by which a group perceives the problem, the basis for the conflict, and by what means it might be most easily

⁸ The avoidance/passivity relates to the perception of stakeholders that a problem did not need to be solved. Those employing a fact finding position would suggest that a problem should be first investigated and recommendations from that investigation should be used to solve the problem. The joint problem solving frame reflects statements suggesting negotiation or mediation should be employed based on either consensus from the whole group or as a consultation process for authorities. The expert authority frame suggests that those with the technical knowledge and expertise, often government personnel should make the final decisions to resolve conflicts. The latter half of the subframes are more active in their orientation. The subframe for adjudication captures arguments suggesting that only through some sort of court action will the problem be solved, which often requires those individuals to force the action. Similarly, the appeal to political action frame suggests that a new law, or the repeal of an existing law is required to solve the problem. This can be related to the appeal to the market economy frame which captures arguments suggesting that some sort of market solution should be deployed legislatively, or voluntarily that can incentivize certain actions to ameliorate the problem. The struggle/sabotage/violence frame suggests that only civil disobedience or some sort of force will solve the problem. Finally, the other/common sense frame captures all other arguments and those that suggest that the problem could be solved if individuals just used simple logic or some sort of best practices.

solved. How much variation exists in these causal stories may influence whether the competing stakeholders will be able to solve the problem.

The *social control frame* reflects ideological value-based arguments related to whether a problem should be solved and through which means. The idea here is that individuals place different values on their own personal freedom and whether government should constrain that freedom. Those who promote individual freedom would be least interested in government intervention, while others with a more egalitarian or liberal perspective may believe that government should be given the authority to place some restrictions on citizens and make decisions on their behalf. The individual's ideological perspective can color the type of solution that they promote to solve the problem.

In comparison, the *power frame* reflects stakeholder perceptions of which groups or entities wield influence over the policy outcome and by what means. Here, Lewicki et al. also identify nine subframes including: authority/positional, resources, expertise, personal, coalitional, sympathy, force, moral, and voice. The type of power subframes that appear most frequently can help reveal the groups or individuals that stakeholders perceive as influential and why a dispute has been resolved as it has.

Finally, the risk perception and loss vs. gain frames are somewhat similar. The *risk* perception frame captures the extent to which a stakeholder believes a problem should be solved.

_

⁹ The authority/positional subframe captures the belief of stakeholders that some individuals wield power through their formal job or decision making position. The force/threat frame captures stakeholders' perception that some entities wield power by their ability to coerce certain action, such as a federal agency interceding to solve a problem on their own. The resource frame captures stakeholder's arguments that some interests hold power because of their access to money, staff, and time. The expertise frame reflects stakeholders' belief that certain groups hold power based on their expertise or relevant knowledge in a policy debate. The personal power frame captures the idea that individuals wield power through their own charisma, or connections. Coalitional power relates to the perceptions of individuals that they could influence decisions through their membership or connection to particular groups. The sympathy frame reflects some individuals' ability to wield power the perceived victim. The moral/righteous power frame is similar where stakeholders might believe they can influence decisions by suggesting they believe they are ethically correct or have authority to speak on an issue given their character. Finally, the voice frame captures the idea that power results from having access to discuss the dispute.

For example, what are the impacts associated with action or inaction on society. Arguments regarding these risks can influence ones perception of how to solve the problem. The *loss vs gain frame* reflects a stakeholder's perceptions regarding whether certain actions will result in more benefits i.e. sufficiently alleviate the risk, or be too costly to warrant action. Whether groups perceive themselves as winners or losers as a part of this calculus can influence their perceptions of what should be done.

Ultimately, Lewicki et al. (2003) concluded that most often the identity, characterization, and conflict management frames explained the resolution of the conflicts they studied. In particular, they found that "parties do not frame the underlying problems in the same way...[and] limited repertoires of conflict management frames lead disputants to adopt adversarial conflict management strategies" (pg. 418). Thus, an analysis of the way stakeholders framed issues proved valuable in determining the outcome of the conflicts studied.

From this foundation, Rinfret (2011c) developed a frame analysis model for administrative rulemaking. Rinfret evaluated three rules at the United States Fish and Wildlife Service (USFWS) and relied upon primary data collected from interviews to describe the types of arguments that stakeholders use in regulatory proceedings. Her goal was to determine whether an evaluation of the types of frames used can reveal which groups appear more influential on outcomes. Rinfret concluded that stakeholders used arguments associated with certain Lewicki et al. frames, but argued that new frames were necessary to effectively categorize these arguments. Thus, Rinfret developed three new conceptual frames to more succinctly reflect the data collected and illustrate how interest groups attempt to frame issues in the administrative realm including the expertise, instructive, and fiscal feasibility frames.

More specifically, the *expertise frame* integrates arguments similar to those documented in Lewicki et al.'s conflict management and power frames. In Rinfret's work the expertise frame captures the efforts of stakeholders to use scientific, technical, or other information to influence agency actions. More directly, stakeholders attempt to demonstrate that they have some unique knowledge that would benefit the agency, in the hope that the agency will both accept that information and take up their concerns.

The *instructive frame* is somewhat similar to Lewicki et al.'s whole story frame and encompasses the arguments of interest groups to provide both a big picture summary of the issue and a solution for how that issue should be resolved. Simply put, stakeholders offer a definition of the problem in an effort to shape the possible solutions that the agency may consider to solve that problem. The goal of this process is to have the agency see the problem from the stakeholder's point of view to structure the eventual outcome.

Finally, the *fiscal feasibility frame* is related to Lewicki et al's (2003) risk and loss vs gain frames. In Rinfret's conception this frame encapsulates stakeholder arguments related to the economic implications of regulatory actions. Here, stakeholders will discuss the benefits of regulatory action, in relation to costs. The goal here is to push the agency to take certain preferred actions, because of the fiscal impacts.

Ultimately, Rinfret (2011c) concluded that those groups that employed arguments related to the expertise frame, especially those who employed scientific information were most influential on the USFWS. In addition, Rinfret (2011c) asserted that this influence was balanced across stakeholders, because the agency was interested in finding consensus regarding rule language and competing stakeholders employed the expertise frame.

Cook (2014b) applied the same model to the National Park Service (NPS) and the development of snowmobile regulations at Yellowstone National Park. He documented that interest groups largely applied the same frames (expertise, instructive, and fiscal feasibility), though with less influence over regulatory outputs. Cook reasoned the lack of influence might have been caused by the fact that the rule studied was highly salient with significant political appointee involvement. As a result, these political personnel were more influential on the regulatory outcome, limiting the role stakeholders could play. Cook also suggested that the NPS rulemaking process incorporated less stakeholder input than was the case at the USFWS further limiting the potential influence stakeholders could wield over the outcome.

Overall, this emerging literature suggests that interest groups most commonly use expertise, fiscal feasibility, and instructive frames during their informal interactions with agency personnel in an effort to influence the language of proposed rules. In addition, those interest groups that employ arguments related to the expertise frame, including arguments incorporating scientific and/or technical information may in some cases, have the most influence over the content of proposed rulemakings. It is possible that the EPA is similarly impacted by arguments associated with the expertise frame given their similar science-based regulatory mission (Rosenbaum 2013). Therefore, the use of the expertise frame may result in some groups more effectively employing the informal interactions strategy. As a result, this dissertation uses a similar methodological approach to the aforementioned literature to evaluate interest group's use of the informal interactions strategy to influence the agency during the pre-proposal stage. In addition, this work tests the conclusions generated as they relate to Rinfret's (2011c) conclusion that interest groups are generally balanced in their influence on this stage because a variety of competing interests use the expertise frame.

Notice and Comment Interest Group Involvement and Influence

The rulemaking literature has spent more time evaluating the influence of interest groups during the notice and comment stage and has generated different conclusions (Fritschler, 1975; Magat, Krupnick, & Harrington, 1986; Furlong, 1993; Golden, 1998; West, 2005; Yackee & Yackee, 2006; Kamieniecki, 2006; Wagner et al. 2010; Shapiro, 2013). There is consensus that business organizations are the most frequent commenters on rules across the bureaucracy (Golden, 1998; Yackee & Yackee, 2006; Golden, 1998; Furlong, 2007; Wagner et al., 2010), which is in contrast to the previous conclusions of pre-proposal researchers. Research findings from the notice and comment stage reveal that business groups comment more often because regulations can have significant impacts on their operations, these organizations have the resources to participate, and it serves as a foundation for litigation (Furlong, 2007; Rinfret & Furlong, 2012). This is not to suggest that other groups do not also participate for similar reasons, but business groups are consistently more involved (Kerwin & Furlong, 2011; Rinfret & Furlong, 2012).

As for interest group influence at this stage, outside of Golden (1998), most have argued that interest groups can impact rules through submitting public comments (Fritschler, 1975; Magat, Krupnick, & Harrington, 1986; Furlong, 1993; Yackee & Yackee, 2006; Kamieniecki, 2006; Shapiro, 2013). Though agencies will make changes to proposed rules based upon these comments, some have argued these revisions do not significantly impact the outcome (Kamieniecki, 2006; West, 2009; 2011). This is because agency personnel are unwilling to change policy, because of limited resources, tight regulatory timelines, and fear that significant revisions will spur litigation (Kerwin & Furlong, 2011; Shapiro 2013). These conclusions are largely based on noncontroversial rules (low economic impact and few public comments) and

Shapiro (2013) argued that researchers need to evaluate more salient rulemakings and determine if agencies are more responsive to public concerns in these more contentious policy areas. Shapiro evaluated twelve salient rulemakings, with an average of 1100 comments, and concluded that agencies frequently made changes to rules in response to comments. Shapiro claimed that it is possible that in even more salient rulemakings, or those that receive over 2500 comments, agencies will be even more willing to make changes to their rules.

Assessing Influence: Comment Analysis

Because researchers have found that interest groups can have influence on regulatory outcomes via submitting public comments, some have tried to determine why certain groups receive rule changes while others do not. This research has generally adopted a similar research methodology focused on reviewing the preamble of the proposed rule that summarizes the contents of the rule in laymen terms and comparing it to the final rule preamble. The final preamble documents both the contents of the final rule and in some cases documents key policy changes. In addition, agencies publish a Response to Comment document that outlines why the agency made changes to a rule and in response to which commenters. Scholars then document the groups that received a rule change, and thus influenced the outcome of the rule.

Some work has pointed out that federal agencies are more likely to make changes to a rule when a majority of commenters support the change (Yackee & Yackee 2006; Furlong, 2007; Kerwin & Furlong, 2011). This is not always true, and Yackee (2006) finds that even in some cases where there is not a consensus among commenters; agencies may still make changes to a rule. Shapiro provides some insight regarding why this might be the case, as he argues that the type of change requested matters in terms of whether a commenter is likely to get a rule change. Shapiro (2013) asserts that federal agencies are most likely to make changes to a rule when

commenters ask for clarifications in the rule's language. Shapiro suggests these are requests for the agency to explain what the rule language means and not to change the stringency or scope of the rule. In these cases, the agency will provide the clarification and assert that they had not changed the scope of the rule from what the proposal was supposed to cover. Thus, Shapiro concludes that those commenters that ask for clarifications of the intent of the rule should be more likely to see an agency make a change to a rule than those that ask for more substantive changes.

Though this may be true it does not explain why certain interest groups asking for substantive changes are granted those changes. Others argue that authorship of the comments is another important factor, in whether an agency will make a change. Most scholars show that federal agencies make changes in response to business interests most frequently (Yackee & Yackee, 2006; Yackee, 2006; Kirilenko, Mankad, & Michailidis, 2014; Baird & Fernandes, 2014). Though this is most often the case, some academics find that public interest organizations can also receive rule changes (Kamieniecki, 2006; Kirilenko et al., 2014; Baird & Fernandes, 2014). Moreover this conclusion does not explain why certain business interests receive a rule change over others.

Thus, some have turned to the content of the comment to explain which groups are likely to receive rule changes. For example, Baird and Fernandes (2014) found that evaluating the technical content of comments will help explain whether a stakeholder group will get a rule change. They find in their analysis of regulations at the Brazil National Civil Aviation Agency (ANCA) that those commenters who provided longer comments and scientific data were the most influential. They demonstrate that business groups often employed these technical arguments, but other groups can also have influence through submitting more technical

comments. Similarly, Yackee (2013; 2014) concludes that those commenters that submitted more technical, data-driven information in state level rulemakings in the United States were perceived to have more influence on a rule's outcome.

In summary, this literature illustrates that business groups are the most frequent commenters and they receive the most rule changes at this stage in the process. For understanding influence, academics have highlighted that an attention to the actual content and in particular the technical content of public comments is important in explaining whether certain groups are likely to receive rule changes over others regardless of organization type. Ultimately, these conclusions are largely based on noncontroversial rules, so there is some concern that they do not reflect what happens in controversial rules. As a result, this dissertation tests these claims in these controversial rules, while more importantly comparing influence with the earlier stage of the process.

Rule Finalization Interest Group Involvement and Influence

The field has devoted less empirical attention to the rule finalization stage as it relates to evaluating the strategies and influence of interest groups. ¹⁰ Scholars have concluded that interest groups often file litigation after rules are finalized (Kerwin and Furlong, 2011) and this is the case at the EPA where a variety of groups file between 100 – 200 environmental cases each year (GAO 2015). Research suggests that business interests are usually the most frequent litigators, though environmental interests, at least in the EPA context often file suits in equal numbers (GAO 2015; Wagner et al. 2010). Regardless, the courts only rarely reject federal rules from any

1

¹⁰ There has been some emerging literature focused on the tendency of public agencies to work in concert with favored interests in a process termed sue and settle. Here, an agency welcomes litigation from a favored interest to change policy to be more amenable to that group (Butler & Harris, 2013). Some contended that the George W. Bush administration used this approach to work with industry to walk back environmental regulation (Kylza & Sousa, 2013), while others have criticized the Obama administration for employing the same approach but to push an environmental agenda forward (Butler & Harris, 2013). Regardless, this process is most frequently employed to either place new rules on the agenda, or to rollback rules generated by previous administrations (Klyza & Sousa, 2013).

agency (Kerwin & Furlong, 2011) including those at the EPA (O'Leary, 2013; Klyza & Sousa 2013). This is because the courts frequently defer to agency expertise, given many environmental laws are vague. In these contexts the courts will defer to agency activity provided it was derived from a rational approach (Kerwin & Furlong, 2011).

Though litigation is unlikely to result in changes to a rule, there are some notable exceptions including *Massachusetts et al. v. EPA et al.* where interest groups can win in the litigation context (O'Leary, 2013). The courts are more likely to take stands against agency activity, when it involves interpreting the agency's statutory authority to act as opposed to the content of the regulation. This is likely for first generation rulemakings, or when the agency is considering regulating in new areas which was the case in *Massachusetts et al. v. EPA et al.*Overall, when the courts do intercede in EPA rules it has often been because the agency did not go far enough to achieve environmental outcomes as required by law (Klyza & Sousa, 2013).

Recently, some emerging literature has focused on the tendency of public agencies to work in concert with favored interests in a process termed sue and settle. Here, an agency welcomes litigation from a favored interest to change policy to be more amenable to that group (Butler & Harris, 2013). Some contended that the George W. Bush administration used this approach to work with industry to walk back environmental regulation (Kylza & Sousa, 2013), while others have criticized the Obama administration for employing the same approach but to push an environmental agenda forward (Butler & Harris, 2013). As a result, this dissertation includes a brief discussion of interest group activity during the rule finalization stage and

-

¹¹ The courts are more likely to overturn decisions that do not go far enough to achieve environmental outcomes as required by law (Klyza & Sousa, 2013).

¹² This process is most frequently employed to either place new rules on the agenda, or to rollback rules generated by previous administrations (Klyza & Sousa, 2013).

litigation more generally to document how these activities influenced the outcome across each case.

Where do we go from here?

Overall, this literature offers us significant insights into the actions and potential influence of interest groups within rulemakings. By way of summary we know the following 1) interest groups are involved throughout the rulemaking process 2) interest groups may be most influential during the pre-proposal stage based upon their ability to successfully frame issues 3) interest groups can also influence rule language during the public comment period based upon a range of factors, and 4) interest groups are less likely to exert influence during the rule finalization stage.

Though these findings are valuable, this literature is largely focused on individual stages of the process. Therefore, we lack a comprehensive understanding of the role of interest groups in shaping outcomes across the rulemaking process. These gaps in our understanding of interest group influence have made it difficult to draw conclusions about the role of interest groups in regulatory policy and how this relates to the broader interest group debate. These gaps may be all the more evident in controversial rules (Shapiro 2013).

The goal of this research is to offer a comprehensive analysis of the rulemaking process with a focus on how stakeholders' strategies and related influence manifests itself across the rulemaking process for controversial rules. Put simply, this research seeks to determine whether certain groups are more likely to be influential than others in these rules. Finally, I generate a Regulatory Spheres of Influence Framework for evaluating interest group influence on regulatory outcomes that I argue is applicable for evaluating influence in controversial rules across agencies. This endeavor provides insight into the debate regarding the role of interest

groups in regulatory policymaking, while offering some clarity regarding how interest groups attempt to influence rule language across the rulemaking process.

Chapter Three

Methods

As the literature review illustrates, the field has employed different approaches to evaluate the role of interest groups at different stages in the process. This is largely a function of the data available to analyze influence at each stage. During the pre-proposal process agency interactions with interest groups are off the record, while comments related to the notice and comment stage are publically available. Therefore, researchers have employed interview-based case studies to evaluate interest group influence during the pre-proposal stage (West, 2009; Kerwin & Furlong, 2011; Rinfret, 2011a; 2011b; 2011c), while those focused on the notice and comment stage have analyzed public comments. As Chapter 2 reveals, the contributions of these scholars are valuable. But, this piecemeal approach leaves many questions unanswered including which groups are influential across the rulemaking process and particularly in highly controversial rules. In this chapter, I explain why I selected the EPA and these climate change regulations to evaluate interest group influence and my approach to evaluate the influence of stakeholders across the rulemaking process.

Case Selection

I opted to study the rulemaking process of the EPA because the agency is one of the major players in contemporary United States environmental policy (Fiorino, 2012). In fact, the EPA is the largest and one of the most prolific rule writing agencies across the bureaucracy (Yackee & Lavertu, 2007; Fiorino, 2012). For example, from Spring 2009 – 2014 the EPA finalized 200 substantive rules and 23 were economically significant i.e. economics impacts

exceeded \$100 million.¹³ Moreover, EPA rules garner a significant amount of interest group participation, which appears somewhat dependent upon the impact of the rule. For reference, the OMB categorizes all rules from least to most significant impact on the following scale substantive nonsignificant, other significant, and economically significant.¹⁴ Table 3 illustrates the differences in public comments across the 200 EPA rules finalized from 2009 – 2014. It shows that economically significant rules received the most comments followed by other significant and substantive nonsignificant rules.¹⁵

Table 3. Comparison of Average and Median Comments for EPA Rules by Impact (2009 – 2014) n=200

| Category | Total Rules | Average Comments | Median Comments | |
|-------------------|-------------|------------------|-----------------|--|
| Economically | 23 | 132,000 | 22,000 | |
| Significant | | | | |
| Other significant | 97 | 9,000 | 38 | |
| Substantive | 80 | 350 | 17 | |
| nonsignificant | | | | |

As such, economically significant rules at the EPA receive the most public comments and thus should offer useful cases to evaluate interest group influence on controversial rulemakings. I selected EPA regulations relating to the climate change policy arena because these rules were: 1) economically significant; 2) highly salient; and 3) there remains significant controversy surrounding whether certain groups were unduly influential on outcomes.

I selected three of the six finalized climate change regulations from President Obama's first term for this analysis including: the Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule (Tailoring Rule), the Oil and Natural Gas Sector: New Source

¹⁵ These data are based on a review of completed EPA actions published in the *Unified Agenda* and comment totals submitted via www.regulations.gov.

35

¹³ These data are based on a review of completed EPA actions published in the *Unified Agenda* and comment totals submitted via www.regulations.gov and exclude informational or routine rulemakings that do not alter regulations. See: http://www.reginfo.gov/public/jsp/eAgenda/StaticContent/201404/Preamble_8888.html.

¹⁴ For more information on these categorizations see: http://www.reginfo.gov/public/jsp/eAgenda/StaticContent/201404/Preamble 8888.html.

Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews (Oil and Gas Rule), and the 2017 Model Year Light-Duty Vehicle Greenhouse Gas Emissions Rule (2012 CAFE Standards Rule).

I opted to analyze these rules from Obama's first term because they had completed the rulemaking cycle. In addition, each of the three rules were economically significant and salient. In fact, these three rules were the second, fourth, and fifth most commented on EPA rules finalized from 2009 - 2014. The Tailoring Rule received about 446,000 comments (EPA, 2010a), while the Oil and Gas Rule and the 2012 CAFE Standards Rule both received about 300,000 comments (EPA & DOT, 2012). Thus, these rules should reveal how influential interest groups might be in the most controversial rules at the EPA.

Methodology

To structure this evaluation, I rely upon a multiple case study design. This approach is useful, because it builds a rich dataset regarding each case that can then be easily compared to the other cases in terms of process and outcomes (Yin, 2009). Similarities and differences across the cases can then help to generate conclusions regarding the role and impact of interest groups across the cases. As a result, I built the case histories for each rule first to contextualize each event relying on archival documents.

To evaluate the role and influence of interest groups, I divide my analysis into two parts:

1) an evaluation of interest group influence during the pre-proposal stage and 2) an assessment of influence during the notice and comment stage. For both the pre-proposal and notice and comment analysis, I rely on qualitative interviews and archival document analysis to generate

¹⁶ These data are based on a review of completed EPA actions published in the *Unified Agenda* and comment totals submitted via www.regulations.gov.

¹⁷ The EPA notes that they received 4400 unique comments on the Oil and Gas Rule. However, this number counts all submissions of form letters as 1 comment, and when accounting for these form letters the overall commenter total nears 300,000 (EPA, 2012c).

conclusions regarding interest group influence. The interviews are valuable for generating primary data regarding interest group strategies, framing activities, and perceived influence. These interviews are critical for explaining interest group influence during the pre-rule stage given the lack of archival data. In contrast, the review of archival documents such as rule preambles, public comments, and RTC documents can reveal which interests caused the EPA to make a rule change during the notice and comment stage. Thus, for the notice and comment stage, I rely more on a public comment content analysis to gauge influence. I then compare my findings across the rulemaking process to clarify the scope of interest group influence across the rulemaking process and determine whether certain groups were more influential on outcomes. This methodological approach by stage is summarized in Figure 2 and I explain my methods in more detail for each stage in turn.

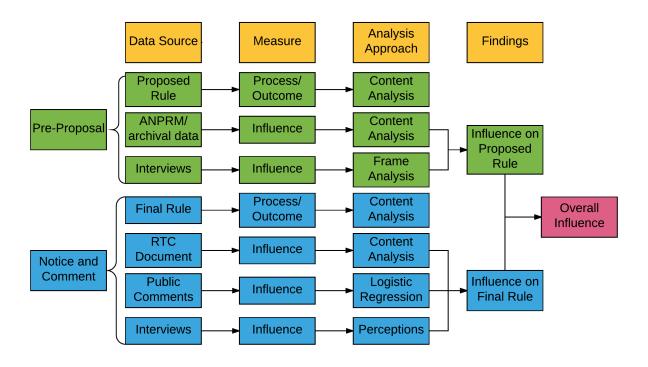


Figure 2. General Methodological Approach for this Dissertation

Qualitative Data Collection and Analysis

Across all stages of this analysis I employed a qualitative data analysis approach utilizing both archival desk research and semi-structured interviews. This data served to contextualize each case, and provide key insights regarding influence across each stage of the process and most importantly served as the foundation to generate my conclusions regarding overall influence. I discuss my archival research and interview approach in turn.

Archival Analysis

A number of archival data sources are available for case study research, but in this context I relied upon archival data predominantly from the EPA including proposed and final rules, RTC documents, agency fact sheets and other materials. First, this archival data provide a chronology of events and highlighted some of the important policy debates that were unfolding during the development of each rule. This served as the basis to generate case histories for each of the rules that can then help us to understand how the rules reached their eventual outcome. This archival data can also illustrate when the agency shifted course, and in some cases for what reason. For example, reviewing agency RTC documents will clarify each rule change adopted during the notice and comment stage and in response to which comments offering a direct connection between interest group activity and influence at least at this stage in the process (Yackee & Yackee 2006).

Semi-structured Interviews

Despite the value of this archival research, it is limited in providing the data necessary to make inferences about influence in the pre-proposal stage or across the rulemaking process. To augment this data, I conducted 73 semi-structured telephone interviews from Spring 2016 through Fall 2016 with agency staff and stakeholder groups to provide the primary information

regarding when stakeholder groups were involved in the process and how they attempted to influence the agency. Although these interviews were semi-structured, each interviewee was given a list of potential interview questions outlined in appendices A (agency personnel) and B (interest groups). These questions served as a foundation to begin and carry forward the interviews. The semi-structured approach allowed interviewees latitude to discuss information they deemed relevant to the case, while the interviewer would be able to ask follow up questions. I identified initial interviewees from a review of the *Unified Agenda*, the *Federal Register*, and the EPA's employee directory. I then employed the snowball method¹⁸ to identify other key players in this rulemaking process. I conducted 18 interviews with agency personnel and interest groups in the Tailoring Rule, 32 related to the 2012 CAFE Standards Rule, and 23 for the Oil and Gas Rule.¹⁹

I interviewed a total of four agency personnel involved in the development of each rule to fill gaps in the archival data regarding the rulemaking process and to reveal areas of contention within each rulemaking.²⁰ The number of interviews from the agency perspective is low, but this is justifiable, because relatively few agency personnel are tasked with writing rules for the agency (Kerwin & Furlong, 2011) and agency personnel can decline to be interviewed. In addition, the purpose of these agency interviews was to provide background information about how the rulemaking process unfolded and stakeholder participation. Thus, these interviews served to inform the archival research conducted to construct a rulemaking timeline.

The 69 stakeholder interviewees offered the most primary information regarding interest groups strategies used across the rulemaking process and their perceived value. To identify

¹⁸ This refers to the process of asking interviewees to identify other important players in the process (Patton, 1990).

¹⁹ These interview totals are within what is considered the acceptable range (15-30) for qualitative research and particularly that research focused on developing grounded theory (Creswell, 2003; Morse & Chung, 2003). ²⁰ Given the limited number of interviewees, to protect the anonymity of the agency personnel I have not broken out

²⁰ Given the limited number of interviewees, to protect the anonymity of the agency personnel I have not broken out the agency interviewees related to each case.

interviewees I reviewed the submitted public comments for each of the rules. Those interest group commenters that included some form of contact information in their comments were documented and contacted at least twice. ²¹ The snowball method was employed to gain additional research participants and in particular those that may have been involved but did not submit public comments. The interviewees included a wide range of environmental organizations, manufacturers, fuel providers, suppliers, industry groups, and other nongovernmental organizations. ²²

Frame Analysis

To begin to assess the influence associated with interest group activities, I entered all of the interview transcripts into Qualitative Solutions and Research International's NVivo data analysis software for analysis. This software "provides facilities for data management, for coding and retrieving text, and for theory testing" (Crowley, Harre, & Tagg, 2002; p. 194). Simply put, it allows the user to code interview transcripts and track and compare data across a large dataset.

I used NVivo to more effectively compare interest group framing activities from different groups (business vs environmental) and across cases. In this study, the prepared interview questions 3, 4, and 5 included in Appendix B, asked interest group interviewees about the concerns that stakeholders had regarding a particular rule, how they attempted to convey those concerns to the agency, and whether certain arguments gained more traction with the agency in terms of having influence on regulatory outputs. Because these interviews were semi-structured, stakeholders had latitude to control the process. Thus, it is possible that interview data relevant to

-

²¹ In most cases, interviewees were contacted via email and phone, with at least one phone, or if unavailable, one email follow-up request.

²² Per institutional protocol, each interviewee was offered anonymity in order to speak more frankly about their activities within each rulemaking process. As such, the names and organizations of those interviewed are not revealed in this study.

these questions was discussed at various points throughout the interview. Regardless, any information pertinent to answering the aforementioned questions was coded in NVivo.

Given the fact that the frame analysis approach employed by Rinfret (2011c) is both relatively novel and relates to the work of Lewicki et al. (2003), this analysis initially coded the individual interviewee responses to open-ended questions in relation to the broader frames outlined by Lewicki et al. (2003). Simply put, interviewee data that related to the types of arguments a group employed to influence the agency were coded and associated with one of Lewicki et al.'s frames including the: identity, characterization, conflict management, whole story, social control, power, risk, and loss vs gain frames. Where a frame had associated subframes, such as the conflict management frame, arguments were categorized into one of those subframes.²³

I then reviewed the coded data to determine if any stakeholder arguments in the dataset were not captured by Lewicki et al.'s frames. As a subsequent review mechanism, I employed the word frequency and word cloud functions within NVivo to determine if any words or phrases potentially associated with uncoded arguments appeared in the most frequent content.²⁴ I then overlaid Rinfret's (2011c) three frames including the expertise, instructive, and fiscal feasibility frame on the existing coded data to determine how much of the arguments made by stakeholders were captured by these condensed frames. The goal was to ensure that Rinfret's frames do in fact capture the arguments employed by stakeholders. Though these frames covered much of the data, I identified two somewhat prevalent frames legal and public health that captured arguments

_

²³ The author was the sole coder of all the interviewee data.

²⁴ NVivo's software will generate a word frequency list that a user can browse through. This list can be downloaded for an excel analysis, or the user can see language that comes before and after a given word to determine the context in which it was used and in which specific interview. In addition, NVivo also offer's the option to remove certain frequent words, such as "the" from the word frequency list to make this type of analysis easier. In fact, NVivo's word cloud function already accounts for many of these types of frequent words, such as "a, an, the etc" and can display the most frequent words in a visual representation, where the most frequent words show up in larger font. The user can then further delete frequent words, while the cloud repopulates.

relating to the legality of the rule and its impacts on human health that did not fit well with existing frames. The legal frame accounts for most of the additional coded data. Therefore, I argue the legal frame is an important and novel contribution and I discuss this frame in more detail in Chapter 4.

I then summed the number of arguments employed by stakeholders within NVivo across these frames to determine which appear to be the most common within a given case. My expectation is that the more frequently employed frames are likely perceived as valuable to interest groups. I then compared the frequency of frames used with the perceived influence on regulatory outcomes associated with that frame as derived from the interviewee data.

Quantitative Public Comment Analysis

For the notice and comment stage, I used a different data analysis software from NVivo. This was done to complete the public comment analysis. This analysis could then augment interviewee perspectives regarding the notice and comment stage. This approach is valuable because there are a wide variety of factors highlighted in the literature that may result in an interest group receiving a rule change in response to a comment such as those requesting the change and comment length among others. As such, populating this data into computer software, such as STATA, for further analysis is useful for streamlining data analysis processes. Perhaps most importantly, the STATA software can control for the impact of specified independent variables upon the dependent variable (rule change). This is important for this study given the variety of independent variables included and the likelihood that several of them may influence whether an interest group receives a rule change.

Building the Dataset

To build my interest group public comment dataset, I started by collecting all the public comments associated with each rule. I accessed and reviewed these comments through the *Federal Register* web portal www.regulations.gov. After filtering out form letter submissions and unique comments associated with individual citizens, there were a total of 775 unique comments associated with some type of interest group across the three rules.

After I identified all the commenters, I coded the source of the comment as 1) business/trade association; 2) public/environmental interest; 3) state government interest and; 4) other such as academic institutions or think tanks. As noted, the literature suggests that business interests are the most likely to participate (Golden, 1998; Yackee & Yackee, 2006) and they may be most influential on outcomes (Wagner et al. 2010). Thus, one testable expectation is that business and trade associations are more likely to be granted a rule change.

I then documented the location from which the comment was made. The goal is to determine first where commenters are located, and whether being located in Washington D.C. versus all other locations has an effect on whether the agency makes a change. For example, some researchers have argued that most commenters are not from Washington D.C. (Golden, 1998; Kamieniecki, 2006). This does not by itself suggest that those commenters from within D.C. do not have more influence on rules. This is a possibly important distinction, because Golden (1998) and Kamieniecki (2006) conclude that no dominant interests in Washington D.C. control the policy developed at administrative agencies. Therefore, if interest groups with a Washington D.C. presence are more likely to receive a rule change, it may mean that despite the variation in commenters, that an elite set of D.C. interests do dominate administrative

policymaking. Thus, a testable expectation is that Washington D.C. based interest groups will be more likely to influence EPA rule language than those groups that are not.

After documenting these characteristics, I turned to the content of the comment. Baird and Fernandes (2014) suggest that the length of the comment appears to result in an increased likelihood that a public agency will make a rule change. Thus, a testable expectation is that the longer the comment the more likely the agency is to make a change in response to that comment.

In comparison, Yackee (2014) provides anecdotal evidence suggesting that those commenters that offer data driven requests for rule changes may be more likely to secure a rule change. This study attempts to operationalize and test this concept in two novel ways. First, the total number of recommended changes a commenter requested were documented by case. Where the expectation is that the more recommendations a comment includes, the more likely the agency is to make a rule change in response to that comment. Second, it is possible that a rule can be changed, because of a technical comment focused all on one recommended policy change. As a result, I also coded the content of the comments, in terms of the arguments made. Simply put, a percentage was allocated to each of the arguments present in a comment, selected from the following categories: technical, policy, fiscal, legal, health, other, and arguments deemed outside the scope of a rule. These categories were developed after a review of ten randomly selected comments associated with each particular rule and served as a means to evaluate the value of technical comments, while also tracking the other arguments employed by stakeholders. The

-

²⁵ Technical content was coded as such when a commenter offered scientific, engineering, or some other data promoting their requested rule change, policy content included arguments requesting a general change or offering rule revisions with no evidence to support that position, fiscal content related to the costs/benefits of a particular rulemaking, legal content included arguments focused on the legality of the action, health content was most evident in the Oil and Gas case and focused on the risk or health benefits associated with a given action, other content include arguments asking for general clarifications such as addressing typographical errors or cleaning up language, finally, outside the scope of the rule content, were those arguments that were deemed irrelevant to the question at hand by the EPA.

²⁶ The development of these codes and the coding of each comment was conducted solely by the author.

expectation is the higher percentage of the comment related to technical content the more likely that comment would result in a rule change.

Data Analysis

Once I collected and coded the data related to each of these variables, I entered them into the statistical software STATA. This software offers a wide range of statistical analysis tools and is frequently used for social science research and political analysis in particular (Pollock, 2012). For this study, the appropriate statistical analysis is logistic regression, given the dichotomous, categorical dependent variable (Pollock, 2012). More directly, the dependent variable in this analysis is whether an interest group was granted a rule change, or was not. This dichotomous variable is also a categorical variable, meaning there is no intrinsic ranking scheme reflecting the spacing between receiving a rule change and not receiving one. In contrast, interval and ordinal variables have confirmed or at least approximate spacing among units. For example, income can be measured in consistent dollar increments so it is considered an interval variable (Pollock, 2012).

With categorical variables it is impossible to devise such a ranking. Thus, it is impossible to say that a unit change in an independent variable, will result in a proportional change, say 20% of achieving a rule change. In contrast, it may be possible to suggest that a unit change in an independent variable\ may result in a higher probability that an organization would receive a rule change.

Conducting a logistic regression makes this type of analysis possible, because it assumes that there is a nonlinear relationship between the dependent variable and the independent

_

²⁷ As opposed to least squares regression. This type of analysis is appropriate for an analysis of an interval or ordinal dependent variable. This type of analysis also assumes a linear relationship between the independent variables and the dependent variable.

variable(s), where variation on an independent variable(s) is likely to increase or decrease the likelihood that a dependent variable will appear. In this study, the independent variables listed in Table 4 serve as the possible explanatory variables from which to determine if a probability based relationship exists between any independent variable and the dependent variable.

Table 4. Variables, measurement, and expectations for public comment period.

| Variable | Measurement | Expectation |
|-----------------------|------------------------------|---------------------------------|
| Commenter Type | Coded 1 – 4 depending on | Business and trade groups are |
| | affiliation | more likely to receive a rule |
| | | change |
| Commenter Location | Coded as Washington D.C. or | Groups located in Washington |
| | outside of Washington D.C. | D.C. are more likely to receive |
| | | a rule change |
| Comment Length | Coded as the total number of | Groups with longer comments |
| | pages included in a public | are more likely to receive a |
| | comment | rule change |
| Total Recommendations | Quantity of recommendations | Groups with more |
| | up to 20 were coded for each | recommendations are more |
| | rule | likely to receive a rule change |
| Technical Content | Comment is coded based upon | Groups with more technical |
| | the percentage of letter | content as a percentage of |
| | focused on certain arguments | their overall comment are |
| | including technical, fiscal, | more likely to receive a rule |
| | legal, policy, and other. | change |

Comparing Findings and Making Conclusions about Overall Influence

After completing the data analysis processes for the pre-proposal and notice and comment stages of the process, I compare the results to generate conclusions regarding whether certain groups were more influential on outcomes and if participation at certain stages in the process is more valuable for influencing the agency. For this analysis, I relied upon the perceptions of interviewees, and supplemented these perspectives with archival data and existing literature to generate my conclusions and develop my Regulatory Spheres of Influence Framework.

Coglianese (2001; 2003) has noted the problems associated with using primary or participant data in relation to questions of influence especially in the regulatory realm. More directly, participants may be predisposed to suggest that their group was influential on an outcome regardless of whether that was in fact the case (Coglianese, 2001; 2003). As a result, this study has taken some mitigation measures to reduce potential bias given this reliance on interviewees. First, participants were asked to gauge the influence of other stakeholders within the process in relation to their own. ²⁸ This allowed interviewees an opportunity to contextualize their activities relative to other groups with the expectation that stakeholders may offer a more candid perspective on their group's influence on regulatory language. Second, the maintenance of anonymity in this study reduces the incentive for organizations to inflate, or deflate the value of their own activities in relation to the final outcome. Simply put, a stakeholder group cannot point to this study to highlight their direct importance in a given rulemaking. Third, I compared interest group assertions with available public data to corroborate claims.

Methodological Limitations

With any research project, this research has its limitations including: 1) indirect analysis of influence; 2) replication; and 3) generalizability. First, employing the Kaufman (1960) approach to analyze interest group influence on outcomes may have offered the most direct method to confirm whether certain groups were more influential on outcomes. In the Kaufman (1960) approach the researcher would shadow agency personnel throughout the rulemaking process, participating in interest group meetings and the drafting of the proposed and final rule. This would give the researcher full access to the regulatory process and a stronger foundation to determine which groups were most influential on the outcome because the researcher was there

²⁸ See Appendix A question 9.

to experience it. Unfortunately, this approach was not feasible, because these rules occurred in the past. In addition, time and resource constraints prohibited employing this method for other rules that were ongoing during this project.

Second, the author solely coded all data for this study. As such, there are concerns relating to intercoder reliability and therefore the replicability of this study. To address this concern, I have attached Appendix E and F, which include the coding book and examples for both the Frame Analysis and Public Comment Analysis sections. These documents should serve as a useful means for others to review this work and replicate the study in the context of the EPA or other agencies.

Third, this dissertation and its findings cannot be directly applied or generalized across all rulemakings at the EPA or the bureaucracy more broadly. Simply put, this dissertation focuses on controversial rules that may be very different from normal rules in terms of not only regulatory structure, but also interest group presence and influence. As I argue in later chapters the methodological approach and resulting interest group framework of influence may be applicable in other cases, but this cannot be implied directly from this research study. Rather, the results should only be generalized to other controversial rulemakings at the EPA and possibly other agencies controversial rules.

Chapter 4

Climate Change Policy, Interest Groups, and the Pre-proposal Stage

The goal of this project is to evaluate the effect that interest groups had on shaping the Tailoring Rule, 2012 CAFE Standards Rule, and the Oil and Gas Rule. To contextualize the role and activities of interest groups across the three rules, it is important to discuss the rulemaking history of each. The Tailoring Rule and the 2012 CAFE Standard Rule share a common history and so this section begins with these two rules. I then turn to discuss the somewhat unique nature of the Oil and Gas Rule. After establishing this context, the remainder of this chapter focuses on the strategies and influence of interest groups during the pre-proposal stage of the process.

Chapter 5 then discusses these groups' actions during the notice and comment stage, while Chapter 6 assesses the comparative value of these groups' actions across the stages of the process along with which groups might have exerted the most influence on the outcome of each rule.

Case Histories

The statutory basis for regulating GHGs is derived from the Clean Air Act, but this law does not specifically mention GHGs. When California requested a waiver from the EPA to allow the state to implement its Clean Car Standards in 2005, which would have reduced carbon emissions from new motor vehicles (CARB, 2013), it was unclear whether the EPA had the authority to grant the waiver. California requested the waiver under Section 209 of the Clean Air Act that grants the state authority to enact more stringent air pollution standards for motor vehicles, provided the EPA grants the state a waiver to exercise that authority (EPA, 2015a). At the time, the EPA argued it did not have statutory authority to regulate carbon emissions, so the

agency could not grant California a waiver (EPA, 2008b). California sued the EPA and was initially joined by 15 other states including Massachusetts (Richburg, 2008). The Supreme Court heard the case in its landmark 2007 decision *Commonwealth of Massachusetts et al. v. Environmental Protection Agency et al (Mass et al. v. EPA et al.)*.

In a 5-4 ruling, the court concluded that the EPA did have the authority to regulate GHG emissions. The Supreme Court reasoned that "greenhouse gases fit well within the Clean Air Act's capacious definition of air pollutant" (*Mass et al. v. EPA et al.*, 2007). Therefore, the Supreme Court argued that the agency could regulate GHG emissions under the Clean Air Act, if it found that these pollutants endangered the public health and welfare. As such, the EPA could both grant the waiver to California and regulate GHGs unilaterally if the agency determined it was necessary.

At the time, the Bush administration was still in office and had little interest in regulating GHG emissions (Eisner, 2007; Klyza and Sousa 2013). Nevertheless, the EPA began to assess what the impacts of regulating GHGs via the Clean Air Act would entail through the publication of an ANPRM in 2008.²⁹ The goal of this ANPRM was to seek public comment regarding how the agency should respond to the Supreme Court decision. In particular, the EPA was interested in comments from stakeholders regarding what the potential impacts of regulation would be. The document outlined a list of issues that the EPA and other agencies had identified if the agency were to regulate carbon emissions. Of particular interest, the EPA reasoned that the act of regulating carbon emissions from motor vehicles could then trigger "regulation of smaller stationary sources that also emit GHGs – such as apartment buildings, large homes, schools, and hospitals" (EPA, 2008a, pg. 5).

_

²⁹ An ANPRM is a formal means for a federal agency to receive input from affected stakeholders regarding an area in which the agency is considering regulation (Kerwin & Furlong, 2011).

This logic is based upon the EPA's interpretation of the stipulations within the Clean Air Act. Ultimately, the EPA is largely precluded from developing regulations, unless it publishes an endangerment and cause and contribute finding for the specific air pollutant. This endangerment finding has two important implications. First, and as mentioned in the introduction, it opens the door to regulating the specified air pollutant, in this case GHGs. Second, if the EPA concludes that mobile sources cause and contribute to the harm caused by that air pollutant, the agency is required to regulate those emissions under Section 202 (EPA, 2011b). Once the agency regulates GHGs from mobile sources, the EPA argues that these emissions are now "subject to regulation" under the Clean Air Act. This subject to regulation designation is important, because the agency has interpreted the law to require regulation of these pollutants (in this case GHGs) at large (immobile) point sources as well under the Prevention of Significant Deterioration (PSD) and Title V permitting sections of the act (EPA, 2011b).

The PSD program was originally included in the Clean Air Act to regulate air pollution from new major sources, or major modifications to existing facilities in those locations that were in attainment with the National Ambient Air Quality Standards (EPA, 2014). Simply put, the goal of this program is to ensure that air quality does not get significantly worse in those locations that are in compliance with existing standards. The program targets a specified list of 28 major pollution source categories including large power plants, manufacturing, and electroplating operations such as cementing and stationary internal combustion (EPA, 2002). Any business that chooses to build a new facility from one of these categories that emits more than 100 tons per year of any pollutant subject to regulation must file for an EPA permit before constructing the facility. The permit must demonstrate the Best Available Control Technology (BACT) the facility will use to reduce those emissions (EPA, 2011b).

Any point source of pollution outside of the 28 designated source categories must also file for a permit, if the operation would emit 250 tons per year of any pollutant that is subject to regulation. In the event an existing source, that either meets the 100 or 250 tons per year threshold, underwent a major modification that "significantly" increases emissions from pollutants subject to regulation under the mobile source standards would also have to get a permit showing compliance with BACT. Whether increases in a given pollutant are deemed "significant" is determined by the EPA and varies by pollutant. If no significance level is specified, any increase in emissions is considered significant requiring modified existing sources to install BACT (EPA, 2011b).

Finally, under Title V all the facilities subject to these PSD requirements along with any facility that emits more than 100 tons per year of a regulated pollutant must also submit an operating permit to the EPA. The goal of the permit is to show that a facility is in compliance with all sections of the Clean Air Act. These facilities must submit this permit within one year of commencing operation (EPA, 2011b).

Because GHGs are emitted in much larger quantities than the 100 and 250 ton per year thresholds, the EPA reasoned that regulating carbon emissions from motor vehicles would cause new facilities such as hospitals or apartment complexes to require GHG emission controls. Moreover, existing facilities that emit over 100 tons per year such as hospitals would also be required to file operating permits. This was problematic because these facilities typically are not regulated by Title V and so the EPA would be flooded with new permit applications that would overwhelm the agency and their state partners that help administer permits. Thus, the EPA reasoned that regulating carbon emissions, if the regulations for PSD or Title V did not change, would result in an implementation disaster (EPA, 2008).

Given these issues among others, the Bush-era EPA opted not to produce an endangerment finding for GHGs and denied California's request for a waiver to regulate GHGs from motor vehicles (EPA, 2008b).³⁰ In 2009, the Obama administration entered office and California again sent a request to the EPA to grant the waiver. While considering the request, the EPA proposed the endangerment finding for carbon emissions and concluded that mobile source emissions of carbon dioxide and five other GHGs significantly harmed the public health and welfare (EPA, 2009a). The EPA noted that if the endangerment finding was finalized as written, it would require the agency to both regulate carbon emissions from mobile sources under Section 202 of the Clean Air Act (EPA & DOT, 2010) and develop PSD GHG BACT standards for new and modified sources.

The Tailoring Rule

From this foundation, the EPA set out to develop both the mobile and PSD regulations in parallel to limit the potential adverse impact mobile source regulation could have on permitting requirements (EPA 2009a). The EPA drafted the Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule (Tailoring Rule) to incorporate GHG regulations into the PSD program. I will revisit the mobile source regulations which triggered the PSD requirements when I discuss the 2012 CAFE Standard Rule. As noted, the EPA began to consider the implications of regulating GHGs through the Clean Air Act, in the ANPRM in 2008. Before the EPA proposed the endangerment finding in 2009, the agency began work on the Tailoring Rule to address permitting concerns related to large point source GHG emissions.

To carry out this rule the EPA began by seeking to understand the scope of the problem.

As one agency interviewee mentioned "the first step was to get a handle on the extent of the

_

³⁰ In denying California's request, the EPA also argued that Congress developed the waiver process for California to regulate local and regional pollution problems and not global problems such as climate change.

administrative burden that would be triggered by the mobile source rule to figure out how bad it was." To draft a proposed rule, the EPA relied on the comments submitted with the ANPRM.

The EPA also sought input from the Clean Air Act Advisory Council and in particular the Climate Change Workgroup. ³¹ Given the timeline of the committee's work this feedback came after the agency proposed a rule. ³² One EPA official offered some explanation for why this was the case, suggesting that there was some urgency for this rulemaking because "we needed to catch up with the mobile source rule...it was not ideal, but we had to get a proposal out on the streets." ³³

Ultimately, the agency proposed the Tailoring Rule in October 2009, which included a three step phased approach to requiring GHG permitting (EPA, 2009a). The first phase required "anyway sources" to file GHG permits starting in 2011, if they emitted, or planned to emit, more than 25,000 tons per year of carbon dioxide equivalents (tpy of CO₂e). Anyway sources refer to facilities that already existed, or were planned to be built, that would be required to hold or obtain a permit for some other Title V pollutant, such as mercury. At the same time, existing anyway facilities that underwent a modification that significantly increased GHG emissions between 10,000 and 25,000 tpy of CO₂e, would also be required to receive a permit for those emissions.

The second phase then expanded from just anyway sources to include any facility that exceeded the applicable GHG thresholds regardless of whether they are required to obtain a permit for some other pollutant. Finally, the agency proposed conducting a subsequent

³¹ The CAAAC is a stakeholder advisory committee composed of business, environmental, and scientific organizations that was established in 1990 to aid the agency in implementing the Clean Air Act Amendments of 1990. The committee has been renewed every two years since then. See: https://www.epa.gov/caaac/learn-about-caaac.

³² The workgroup generated from CAAAC members was charged with evaluating BACT requirements for GHGs in October, 2009 and the workgroup presented their recommendations in February 2010. See: https://www.epa.gov/caaac/climate-change-workgroup-reports-and-presentations.

³³ CAFE Standard Rule I was proposed in September 2009 (DOT & EPA, 2009).

rulemaking to determine what the permanent GHG thresholds should be in the future, or what a phase three might look like (EPA, 2009a).

The agency received over 446,000 comments (EPA, 2010a) on this proposal and finalized the rule in June of 2010 (EPA, 2010b). The agency made numerous changes from the proposed to final rule, discussed in more detail in Chapter 5. Most notably, the agency increased the first phase GHG threshold from the 25,000 tpy of CO₂e to 75,000, and the second phase to 100,000 tpy of CO₂e threshold (EPA, 2010b).

A variety of states, environmental interests, and businesses filed litigation related to the EPA's authority to implement the Tailoring Rule. The U.S. Court of Appeals for the District of Columbia consolidated this case with that of the EPA's endangerment finding and the 2010 CAFE Standards Rule and issued its opinion in the *Coalition for Responsible Regulation et al. v. EPA et al* in 2012.³⁴ The U.S. Court of Appeals for the District of Columbia upheld all three rules and the Supreme Court agreed to hear only one component of the consolidated case focused on the Tailoring Rule. Specifically the court addressed the question regarding whether the Clean Air Act granted the EPA the authority to regulate emissions from small sources. The Supreme Court issued their opinion in *Utility Air Regulatory Group v. EPA et al.* in 2014 and concluded that the EPA did not have the authority to regulate emissions from small sources such as apartment buildings.³⁵ The ruling did not strike the agency's authority to require "anyway sources" or those large pollution sources that already submit air permits to the agency, to reduce GHG emissions. Though an apparent blow to the EPA's regulatory agenda, the agency referred to the ruling as a partial victory given 83% of the facilities the agency had intended to regulate

_

³⁴ The decision is available here: https://www.cadc.uscourts.gov/internet/opinions.nsf/52AC9DC9471D374685257A290052ACF6/\$file/09-1322-1380600 mtf

³⁵ See the decision here: http://www.supremecourt.gov/opinions/13pdf/12-1146 4g18.pdf.

fall into this category (Liptak, 2014). Nevertheless, the agency was required to rewrite the Tailoring Rule to focus only on the anyway sources regulated in the first phase (Liptak, 2014) and agency personnel were considering the implications of this decision when interviewed for this study.

The 2012 CAFE Standard Rule

Unlike the Tailoring Rule, it was clear that publishing the endangerment finding required the EPA to regulate GHGs from mobile sources. Shortly after the EPA proposed the endangerment finding, the Obama administration called upon the EPA to work with the National Highway Traffic Safety Administration (NHTSA) and California to develop a joint rulemaking that coupled a Corporate Average Fuel Economy (CAFE) standard increase with GHG reductions (The White House, 2009). NHTSA enters the story because the Energy Independence and Security Act of 2007 required the agency to increase the CAFE standards for passenger vehicles and light trucks to a national target of 35 miles per gallon (mpg) by 2020 (42 U.S.C. §7545). Obama's requirement that California be included in the process, could have been foreshadowing the fact that the EPA planned to grant California a waiver to regulate carbon emissions from mobile sources which was finalized in July of 2009 (EPA, 2009b).

Thus, the goal of the Obama administration was to devise one national standard to achieve the goals of the EPA, NHTSA, and California. The EPA and NHTSA jointly proposed the 2010 CAFE Standards Rule in September 2009 and published the final rule in May of 2010 (EPA, 2010c). The two agencies finalized a combined average emission limit of 250 grams of

carbon dioxide per mile which could be achieved through an average fleet fuel economy of 34.1 mpg by model year 2016.³⁶

Shortly after the publication of the 2010 CAFE Standard, the EPA and NHTSA announced that they were planning on developing another joint rulemaking to improve fuel economy and reduce GHG emissions beyond 2016 through model year 2025. This culminated in the publication of the 2012 CAFE Standards Rule (EPA, 2013d). The first step these agencies took was to develop a Technical Assessment Report (TAR) to evaluate what type of emission standards were feasible. The agencies finalized a draft in the fall of 2010 (interview with agency personnel, 2014). In tandem with this publication, the agencies then published a Notice of Intent (NOI), seeking comments from the public and stakeholder groups on that document (NHTSA, 2013). Much like an ANPRM, an agency can publish a NOI to more formally receive public comment on a proposed course of action.

In addition to requesting this more formal public comment the agencies sought informal stakeholder input during the development of the initial TAR (interview with agency personnel, 2014). The most intense stakeholder involvement occurred after the agencies published this document from May 2011 through July 2011, when the agencies negotiated with stakeholders including car manufactures, the state of California, and White House staff to determine what the standards should be (EPA & DOT, 2012). After these negotiations, the agencies published another Supplemental NOI in July 2011, at this time the agencies also announced the letters of commitment from car manufacturers that in sum accounted for 90% of the market (NHTSA, 2011).

_

³⁶ The emission limit of 250 grams of GHGs per mile is the equivalent of a 35.5 mpg and is expected to be either achieved through fuel economy improvements over and above the 34.1 level, or through the accrual of credits (EPA final rule).

In December 2011, the agency proposed the 2012 CAFE Standards Rule setting a standard of 163 grams of GHG emissions per mile and 4.5% annual increases in fuel economy by 2025. If the standard was achieved entirely through fuel economy improvements, the joint rules would result in a combined average fuel economy of 54.5 mpg (EPA & DOT, 2012).

The agency received nearly 300,000 comments on the proposal (EPA, 2012) and published the final rule in October of 2012. This rule finalized the proposal's 4.5% annual increase in fleet mpg through 2025, but included substantive changes regarding how manufacturers could comply (EPA & DOT, 2012). The changes in this rule were largely related to adjusting the credits available to help manufacturers achieve the standard and are discussed in Chapter 5.

Recall, shortly after this rule was finalized the U.S. Court of Appeals for the DC Circuit upheld the 2010 CAFE Standards Rule in the decision *Coalition for Responsible Regulation et al. v. EPA et al.*³⁷ The Supreme Court did not take up this case suggesting that the precedent for setting GHG emission limits for passenger vehicles was permissible under the Clean Air Act. This may explain why litigation efforts related to this rule were limited and unsuccessful. In addition, those vehicle manufacturers that submitted commitment letters supported the rule and did not support the litigation (NHTSA, 2011).

The 2012 Oil and Gas Rule

Finally, the 2012 Oil and Gas Rule took a different path to reach the EPA agenda than either the Tailoring Rule or the 2012 CAFE Standards Rule. Since 2005, oil and gas development in the United States has dramatically increased (EPA, 2011). By 2009, there were nearly 1.1 million wells producing oil and natural gas in the United States. In addition, the EPA

³⁷ The decision is available here:

 $\frac{https://www.cadc.uscourts.gov/internet/opinions.nsf/52AC9DC9471D374685257A290052ACF6/\$file/09-1322-1380690.pdf.}{}$

estimated that about 11,000 new wells employing new hydraulic fracturing or fracking technologies were built and 14,000 existing wells were "re-fractured" each year (EPA, 2011).

Though the EPA is prohibited from regulating oil and gas drilling practices under the Safe Drinking Water Act (Soraghan, 2015), the agency does have the authority to regulate air emissions associated with the process via Section 111 and 112 of the Clean Air Act (EPA, 2011a). First, Section 111(b) allows the EPA to set new source performance standards (NSPS) for individual sectors of the economy that cause or contribute to air pollution that endangers the public health or welfare. The EPA has found that the oil and gas sector is a significant source of volatile organic compounds (VOCs), such as nitrogen oxides, which react with the atmosphere and produce ground-level ozone, or smog. The EPA has also listed these VOCs as air pollutants that harm the public welfare and this requires the agency to set NSPSs and then update them, if necessary every eight years. For the oil and gas sector, the agency last updated these performance standards in 1985 and they only covered natural gas processing plants and not oil and gas wells (EPA, 2011a).

Second, the EPA has also identified the oil and gas sector as a significant contributor of one or more hazardous air pollutants (HAP), which triggers Section 112, requiring the agency to develop National Emission Standards for Hazardous Air Pollutants (NESHAP) for the sector (EPA, 2011b). The agency exercised this authority and set HAP emission standards for oil and gas production, transmission, and storage in 1999. These standards are also supposed to be updated, if necessary, every eight years (EPA, 2011b)

The Wild Earth Guardians and the San Juan Citizens Alliance sued the EPA in January 2009 calling on the agency to update both sets of standards (Zaccardi, 2009; EPA, 2011b). In February 2010, the United States District Court for the District of Columbia issued a consent

decree requiring the EPA to propose a rule updating these standards by July 2011 and take final action by February 2012 (EPA, 2011b).

Though behind schedule, the EPA proposed the Oil and Gas Rule in August 2011. In the proposed rule the EPA revised the existing NSPS for natural gas processing facilities, while modifying the source category itself to include all operations associated with the oil and gas sector including production, processing, transmission, storage, and distribution. The agency then proposed new standards for completion of hydraulically fractured gas wells, specifically requiring reduced emission completions, commonly known as green completions. The EPA argued that this requirement would reduce methane, a potent GHG, other VOCs, and HAP emissions associated with oil and gas development (EPA, 2011c). This new NSPS was applicable to all facilities constructed, reconstructed, and/or modified after August 23, 2011 (EPA, 2011b). The proposed rule also set VOC standards for pneumatic controller devices, centrifugal and reciprocating compressors, and storage vessels. In the case of NESHAPs, the EPA added standards for small dehydrators and storage vessels that were not previously regulated.

The EPA received nearly 300,000 comments on the rule (EPA, 2012c) and the agency published the final rule in August 2012 that regulated all new gas wells, compressors, storage vessels and processing plants constructed after August 2011 (EPA, 2012a). The rule requires, among other stipulations, that all fracked wells must employ green completions when drilling activities end. The rule also requires green completions at re-fracked wells (EPA, 2012a).

-

³⁸ Green completion refers to an "alternative practice that captures gas produced during well completions...portable equipment is brought on site to separate the gas from the solids and liquids produced during the high-rate flowback, and produced gas that can be delivered into the sales pipeline" (EPA, 2011c).

³⁹To be clear methane is also a VOC, though it does not contribute to ground level ozone pollution to the extent of other VOCs, it is a potent GHG that contributes to climate change (EPA, 2012a).

⁴⁰ Storage vessels that had the potential for flash emissions were previously regulated and the new standards apply to all vessels (EPA, 2011b).

After the publication of the rule, the EPA received several petitions for reconsideration for portions of the rule, which is the first step in the litigation process. The EPA granted some of these petitions and followed this regulation with an update to the performance standards particularly related to emission controls on storage tanks (EPA, 2016c). Outside of these petitions, the court system has not heard cases relating to this rulemaking.

Interest Group Strategies during the Pre-proposal Stage

As documented in the case histories, stakeholders were involved in each rulemaking process, but only in the CAFE Standards Rule does this archival analysis illustrate that interest groups used the informal interactions strategy during the pre-proposal stage of the process (as exemplified by the stakeholder negotiations). The interview data reveals that stakeholders used this strategy in the other two rules as well. In addition, there was consistency in terms of the most common strategy that interviewees employed to influence the content of proposed rules. About 75% of interviewees across the three rules asserted that they attempted to influence this content through informal contacts with agency personnel (Table 5). Factoring in the interviewees that hired lobbyists to conduct these informal discussions with agency personnel on their behalf increases this percentage to 81% (Table 5).

Table 5. Percentage of All Interviewees that Participated in Certain Pre-Proposal Activities by Rule⁴¹

| | Tailoring | CAFE | Oil and | Cumulative |
|---|-----------|-----------|---------|------------|
| Tactic | Rule | Standards | Gas | Total |
| | | Rule | Rule | |
| Informal contacts with agency before | 77% | 86% | 57% | 74% |
| notice | (13/17) | (25/29) | (13/23) | (51/69) |
| Hired Lobbyist to interact with agency on | 6% | 3% | 9% | 6% |
| their behalf | (1/17) | (1/29) | (2/23) | (4/69) |
| Total | 82% | 89% | 66% | 83% |
| Total | (14/17) | (26/29) | (15/23) | (55/69) |

_

⁴¹ Three interviewees from both the Tailoring Rule and CAFE Standards Rule, as well as seven in the Oil and Gas Rule did not participate in the pre-proposal stage.

Comparatively fewer interviewees suggested that they participated in OMB meetings as a means to influence the draft rule. To protect the anonymity of stakeholders, I do not list the percentage of interviewees that participated in OMB meetings for each of the three rules.

Overall, few groups went to the OMB before these rules were proposed. A high of 5% of commenters (9 of 163) participated in OMB meetings in the 2012 CAFE Standards Rule, while 1% (2 of 178) participated in both the Oil and Gas Rule and Tailoring Rule (5 of 406). These findings are largely consistent with the existing literature. First, researchers argue that interest group participation in OMB meetings does not correlate with OMB requests for rule revisions (Croley, 2003; Balla et al., 2011; Steinzor, Patoka, Goodwin, 2011). Therefore, interest group's involvement in OMB meetings rarely results in the agency making rule changes. The relatively low participation in OMB meetings in these three cases might reflect stakeholder perceptions of this strategy's comparatively lower value in resulting in influence on a rule's content. In contrast, 57-86% of interest groups were involved via informal interactions with the EPA, which is consistent with the broader literature (West, 2009; Rinfret, 2011a).

Interest Group Framing and Perceived Impact

Given this result, the goal is to assess how interest groups exerted influence on rule language via the informal interactions strategy. The expectation from the literature is that interest group's frame issues in a certain way to wield influence over draft rule content. This section evaluates the frames that interest groups used in their informal interactions with agency personnel across the cases, those that appear most frequently, and which might be most influential on the EPA. The goal is to determine how interest groups vary in their use of the informal interactions strategy and to what effect. This analysis used the frames developed by

-

⁴² A variety of other groups participated in OMB meetings after the proposed rule was issued and all of the meetings the OMB had with these and other interest groups by rule are available here: https://www.whitehouse.gov/omb/oira 2060 meetings.

both Lewicki et al. (2003) and Rinfret (2011c) to serve as a foundation from which to code the interview data and the results are summarized in Table 6 and included in Appendix C.

Across the interviews 480 pieces of data were coded into the frames described by Lewicki et al. (2003). After reviewing the interview data two new frames were added, the legal and public health frames which collectively represented 52 pieces of coded data. The vast majority of this data (50) was related to the legal frame. Across all three cases, at least some stakeholders suggested that they couch their arguments in legal terms related to the statutory authority of the agency to influence outcomes. The public health code captured only two additional codes. I included this code in part to capture the general lack of public health arguments employed to influence the agency and because these arguments do not fit well within any of Lewicki et al.'s frames. After layering on Rinfret's frames it became apparent that most of the coded data could be captured by Rinfret's expertise, fiscal feasibility, and instructive frames which cover 83% of all of the data (See Table 6). Adding the legal frame increases this coverage to 92% of all of the coded data.

Table 6. Summary of the Most Frequently Utilized Frames Across all Three Cases

| Frame | Codes | Percentage |
|-------------|-------|------------|
| Expertise | 203 | 38% |
| Instructive | 155 | 29% |
| Fiscal | | |
| Feasibility | 84 | 16% |
| Legal | 50 | 9% |
| All Others | 40 | 8% |
| Total | 532 | 100% |

Therefore, this research confirms that the modified frames of Rinfret (2011c) do capture the majority of the frames employed by stakeholders to influence the EPA. Though these are the most common frames, this research suggests that stakeholders also somewhat frequently discuss legal arguments, which does not fit well with Rinfret's other frames. Thus, future evaluations of

interest group framing at the EPA should assess arguments associated with this frame to offer a more comprehensive understanding of the types of arguments interest groups use.

As one could expect, the interviewees naturally broke into two competing sides environmental and business interests. Environmental interests and other supporting interests such as consumer and public health groups often advocated for more stringent regulations, while individual businesses and trade associations often argued for restraint and limited regulation. Though interviewees within these categories did not always agree with each other on what should be done, grouping them in this way provides a useful schematic from which to analyze and compare similarities and differences in how they frame issues.

Regardless of group affiliation, interviewees most frequently made arguments associated with the instructive frame followed by the expertise frame (Table 7). Recall, interest groups use the instructive frame to explain what the problem is and how it should be solved. As a result, interest groups seem to use this frame to serve as the framework for the rest of their arguments and thus it is important for explaining how groups will structure and use subsequent frames.

Table 7 also illustrates that across each of the frames, environmental and business interests used arguments associated with Rinfret's frames in relatively equal numbers (excluding the Fiscal Feasibility frame). The following section contextualizes interest groups use of these frames to demonstrate the similarities and differences across frames. In addition, I highlight the perceived value of these frames in influencing agency decisions.

Table 7. Percentage of Interviewees from the Environmental (Env) or Business (Bus) Interest Coalition that used Arguments related to Rinfret's (2011c) Frames by Rule

| Rule | Frames | | | | | | | |
|------|----------|------|-----------|-----|--------------------|-----|-------|-----|
| | Instruct | tive | Expertise | | Fiscal Feasibility | | Legal | |
| | Env | Bus | Env | Bus | Env | Bus | Env | Bus |

_

 $^{^{43}}$ The one significant exception to this assertion is the lack of fiscal feasibility arguments by environmentalists in the Tailoring Rule and I will investigate this issue in the fiscal feasibility section that follows.

| Tailoring | 100% | 92% | 100% | 83% | 0% | 67% | 75% | 58% |
|-------------|------|-----|------|-----|-----|-----|-----|-----|
| Rule | | | | | | | | |
| Oil and Gas | 100% | 86% | 78% | 86% | 78% | 57% | 33% | 29% |
| CAFE | 91% | 86% | 100% | 86% | 64% | 29% | 36% | 57% |
| Standards | | | | | | | | |
| Rule | | | | | | | | |

Instructive

A vast majority of interviewees employed arguments related to the instructive frame (Table 7). However, the actual arguments that interest groups made across the three rules are different as they deal with different pollution sources. Despite these differences, the goal or application of the instructive frame was somewhat consistent for environmentalists and business interests across the three cases.

For environmentalists, the overarching goal was to ensure that a rule was both published and was as stringent as possible. In the case of the Tailoring Rule, one environmental interviewee argued that "we knew there was a problem with the 100 and 250 ton threshold, but [industry] is trying to hide behind the Dunkin Donuts problem, we were advocating for BACT limits for large sources, our focus was to get these large sources regulated." In this context, environmentalists were concerned that the industry argument that very small sources, such as coffee or donut shops would be required to submit permits, is justification for not proceeding with the rule at all. As such, environmental interests were focused on ensuring that when the EPA increased the thresholds for GHGs that they do not increase them such that very few facilities if any would be included. In the Oil and Gas Rule, a similar dynamic was at play. Environmental groups argued "the oil and gas industry performance standard regulations needed to be updated, and they should expand the sources that they regulate capturing additional volatile organic compounds to produce co-benefit methane reductions." Similarly, another interviewee argued "We want stringency and secondly we want to cover the existing equipment in the field."

Finally, the interviewees from an environmental perspective in the 2012 CAFE Standard Rule made similar claims as one argued "the goal was to ensure the most stringent, feasible standard to maximize savings was adopted, while helping automakers to move towards a more sustainable path." As such, the environmental interests focused their advocacy on promoting the most stringent rule that was feasible for the regulated community.

The interviewees from the industry perspective argued that the main goal for them was to limit the scope or impact of the proposal. For example, in the Tailoring Rule, one interviewee noted that given the EPA was set on regulating in this space "the focus was on trying to minimize impacts and try and tailor the thresholds so they would not create regulatory chaos." A similar dynamic was at play in the Oil and Gas Rule. Here, one industry interest noted the agency "needs to take into account the scale of the industry and accommodating the thousands of wells that get drilled every year. Can regulation be implemented without being detrimental to production?" Another suggested more bluntly that they wanted to ensure the agency did "not micromanage their operations." The focus for industry in the 2012 CAFE Standard Rule was in line with these sentiments. One interviewee asserted "our big concern was we wanted...to avoid having to make multiple types of cars." Outside of assuring that the rule provided this harmonization, the industry was also interested in assuring that the rule "had enough flexibility that no company would go bankrupt and no company would be at an inherent advantage."

Overall, the environmental coalition used arguments associated with the instructive frame to assert that the EPA should adopt the most stringent environmental regulation that industry could undertake. In comparison, industry focused on discussing the implications such regulation would have on their operations with the goal to minimize those impacts so that industry could still operate efficiently.

<u>Perceived Impact of the Instructive Frame</u>

Though more interviewees used this frame than any of the others, they rarely suggested that its associated arguments were the most important in influencing the agency. This is logical when considering how interest groups use this frame to shape the broader policy question and describe what the EPA should do. One industry interviewee from the 2012 CAFE Standards Rule aptly summarized arguments from the instructive frame as policy-related and suggested that "in general technical arguments tend to resonate much more then policy arguments do. We tend to always focus on these technical aspects first." Interest groups may use these technical arguments to persuade the agency to make a rule change, but they use the instructive frame to explain why the agency should even consider their technical, fiscal, or legal arguments. Therefore, the instructive frame may not result in direct influence over the content of rules, but it can serve as a foundation for groups to influence the agency via other frames.

Expertise

The most influential frame in this regard may be the expertise frame, which captures interest groups technical, scientific, and data-driven arguments. Outside of the instructive frame, interest groups were the most likely to make arguments associated with this frame across the three cases (see Table 7). In addition, these groups were also using similar language within the expertise frame to influence the agency across the three rules. Figure 3 shows the most frequent words interviewees used when applying the expertise frame. Those words referenced more frequently appear larger than those referenced less frequently.⁴⁴ This figure illustrates that across the three rules interviewees commonly used words such as technical, data, information, analysis, and research when discussing their efforts to influence the agency.

_

⁴⁴ This word cloud and those for the fiscal feasibility and legal frames were generated through the NVivo software. The program analyzes the data associated with a code such as expertise and totals the use of each word. For these word clouds, stemmed words (i.e. make, makes, making) were totaled and combined for display in the word cloud.



Figure 3. Most Frequent Terms Associated with the Expertise Frame in Proportional Representation

Though environmental and industrial coalitions often used the same language, how they structure their arguments was slight different. Environmental organizations frequently used this frame as a means to explain or defend their preferred, often more stringent proposal. For example, in the Tailoring Rule an interviewee from an environmental perspective suggested they had gone to the agency to argue "why we think the action is important and here are some ways we think we can structure it in a sensible way." Another interviewee suggested they did this through a "mix of transmitting white papers and convening meetings [with the agency] to share our viewpoints." Interviewees in the Oil and Gas Rule made similar claims. For example, one interviewee argued "we had put together some reports and a series of internal documents estimating emission reductions and costs to argue for our preferred outcome." This theme carried to the 2012 CAFE Standards rulemaking as well. Here one environmental interest argued "we

produced an analysis of the current technology and what standard was possible, based on that analysis we ...focused on the 60 mpg number and provided a pathway to reach it."

In comparison, industry interviewees more often used this frame as a means to explain to the agency what the industry believed was truly feasible or workable across the three cases. In the Tailoring Rule, one industry interviewee noted the importance of "trying to explain [to the agency] how the industry works so to speak." The goal of this process as another industry interviewee suggested is to demonstrate "the implications based on reality of complying with the rule and the technology at hand today." These same arguments were prevalent in the Oil and Gas Rule, where one interviewee suggested "this is a very unique industry and operation you have different drilling practices...something that works in one basin might not work in another, we bring that kind of information to help inform the agency." Another concurred with this point arguing "they are not the industry experts that we are. EPA does not necessarily get the technical issues of our industry." Finally, industry in the 2012 CAFE Standards Rule also used these arguments as one manufacturer suggested "we were really forthcoming in showing the agencies our business information and saying this is what we can do, and this is what we can't."

Therefore, environmental organizations employed the expertise frame by using technical reports and emissions data to defend their preferred proposals, or promote the most stringent regulatory outcomes across each of the three rules. In comparison, industry often used their technical knowledge and expertise as a means to explain to the agency whether they believed certain approaches were feasible and necessary on the ground.

Perceived Impact of the Expertise Frame

Both environmental and business-related interviewees used arguments related to this frame, because they believed it was the most valuable in influencing the agency. On the

environmental side, one interviewee from the Tailoring Rule noted "if you have a really good scientific basis for why the standards as outlined are not correct or should be changed that can be a strong reason for change." Another interviewee in the Oil and Gas Rule made a similar claim suggesting "the ones that are most influential are those that come in with sound science and data. To be taken seriously you need to provide recommendations that are well supported by technical information." One environmental advocate in the 2012 CAFE Standards Rule alluded to why this approach was valuable arguing "the pre-proposal process is the collection of data phase. They are interested in any data that you might have access to."

These sentiments were not unique to the environmental coalition. One industry interviewee in the Tailoring Rule commented "our strategy has always been to make our arguments based on technical information. Regulations should be based on technical information and data, so our arguments need to be based on that as well." Industry interviewees from the Oil and Gas Rule agreed, as one argued "at this point the best thing you can do is provide good sound data" and another asserted "the EPA is hungry for data...providing them data they do not have is a way to engage them in conversation... it gets you a place at the table." This was the case in the 2012 CAFE Standards rule too as one interviewee noted "the agency listens to technical arguments. They give the agency something to do."

Therefore, a variety of stakeholders across each rule concluded that arguments related to the expertise frame were critical in gaining access to EPA decision makers and to ultimately influence rule content. As a result, it is not surprising that interviewees used these arguments frequently, as a means to support their preferred outcome. These interviewee perspectives are also supported by rulemaking literature that illustrates agency personnel are both interested in sound technical data at this point and those interests with this information may more effectively

influence rules than those without (Coglianese, 2007; Furlong 2007; Rinfret 2011a; Rinfret & Furlong, 2011).

Fiscal Feasibility

Though interviewees believed arguments related to expertise frame were most valuable they also employed arguments associated with the fiscal feasibility frame. The goal of this section is to clarify how stakeholders used this frame and why given the conclusions about the expertise frame. As was the case in the expertise frame there were some commonalities amongst the interviewees as it relates to the arguments associated with this frame. Figure 4 illustrates that interviewees would frequently use language relating to the economic cost and benefits of technology along with a rule's overall impact on consumers and jobs when applying this frame.



Figure 4. Most Frequent Terms Associated with the Fiscal Feasibility Frame

There were again differences in how these competing coalitions used arguments related to this frame. Here environmentalists often argued that the benefits outweighed the costs, while industry questioned this assertion. Notably, in the Tailoring Rule no interviewees from an

environmental perspective focused on the costs and risks of establishing this regulation. As such, none of the interview data from these interests was related to the fiscal feasibility frame. It is not apparent from the interview data why environmentalists did not use this frame to influence the agency. It is possible that this is a result of the fact that the EPA was set on producing a regulation so it was not necessary for environmental groups to defend the action from a cost/benefit perspective. In addition, one of the goals of the regulation was to limit the scope of permitting required, and thus costs of implementation, so interest groups may not have thought arguments on fiscal grounds would be valuable. Regardless, this rule is the anomaly in this case as environmental groups frequently made fiscal feasibility arguments in the other two rules.

For example, in the Oil and Gas Rule one interviewee from an environmental perspective commented "not only are you saving gas, you are also saving the industry money, there is no reason not to do these things." Another interviewee highlighted the importance of these arguments commenting that "industry produces a lot of information that suggests...some facilities will become uneconomic and shut down... and they can be quite flawed analyses we look at them very carefully and when we find errors, or interpretations we don't think are plausible...we get that in the record." Environmental groups also focused on costs in the 2012 CAFE Standards Rule. One environmentalist suggested "what was really key in this process was doing the cost analysis on the stringency of the regulation...we came to an agreement that 60 mpg was reasonable and cost effective." Another suggested "industry often argues that we can't do a certain level because it would be unaffordable or way too expensive...and our cost analysis was important in showing that it can be done way cheaper than industry said it could." As such, in two of the three cases, environmental interests did rely on the fiscal feasibility frame to persuade the agency that the regulations were cost-effective.

In contrast, interviewees from the industry perspective used arguments related to the fiscal feasibility frame to emphasize the potential cost impacts of these rules on industry and the economy at large. One interviewee associated with the Tailoring Rule noted "the administration does not like me, and the EPA was stunned, that this rule is going to cost 330,000 jobs in the industrial sector because they cannot comply with it." Another interviewee commented that the "Tailoring Rule was about costs, and sucking in millions of facilities that had never been a part of the permitting program." Industry interviewees in the Oil and Gas Rule also employed this frame, as one interviewee from this perspective suggested "with the size of this industry, we are always worrying about prohibitively costly technology, and if it could challenge the economics of drilling in the first place." Another industry interviewee concurred arguing "we are not Chevron we are family-owned oil company and this affects our bottom line...instead of drilling two wells we have to drill one because costs have gone up." Finally, industry-related interviewees in the 2012 CAFE Standards Rule also focused on the potential cost impacts to industry and consumers. One interviewee warned that "we are climbing out of the recession and the auto industry has led us out of it, and we can't drive back into it." Another interviewee suggested "it is important to understand that the extra costs associated with this rule will be passed on to the consumer, there is no question about that. Companies do not absorb these costs."

Overall, environmental groups often used fiscal feasibility arguments to justify regulation or their preferred proposal arguing that the regulations were cost effective, or at least the benefits outweighed the costs. In comparison, industry often outright questioned this cost effectiveness or suggested that regulation could have unintended or significant impacts on the ability of the industry to function jeopardizing jobs and impacting consumers.

<u>Perceived Influence of the Fiscal Feasibility Frame</u>

As a result, stakeholders frequently used the fiscal feasibility frame to influence the agency, but the question is why and to what effect? Stakeholders argued that employing the fiscal feasibility frame was important because it can offer a different perspective than just technology-based arguments. For example, in the Oil and Gas Rule an environmental advocate noted "we always try to address the economic arguments that we know this industry is going to put out there, we have gotten good enough we can almost write industry's talking points and we know we are going to have to address those at some point." These arguments were also important to the environmental coalition in the 2012 CAFE Standards Rule as one interviewee argued "we realized that these tech improvements would make cars about \$3000 to \$4000 more upfront, and this is offset by \$8000 in fuel savings. These vehicles are usually financed, so you would see monthly savings that were higher than the technology cost, so. . . consumers would save money and this was really important to the agency."

Industry groups also mentioned the value of these arguments across the three rules. In the Tailoring Rule one industry interest argued "when we talk about costs of mitigation technology, we have to be willing to show something, this is the typical price, we are highly impacted, we have this many units that fall into this category, cost and timing is huge." Another interviewee commented "economic impacts, studies of real costs and impacts on jobs, on people [caused by regulation] that resonates with Washington, the EPA, and the public." Interviewees in the Oil and Gas case made similar claims as one argued "if there is a huge cost and low benefit they will listen to those arguments." Industry interviewees voiced support for these arguments somewhat less in the 2012 CAFE Standards Rule, though one industry interviewee noted the general value

suggesting it was important to mention the concern that "consumers won't buy them...and this could cause job losses."

As such, interviewees believed that these arguments on their own can influence the agency. This may be more likely in those cases where an interest group pairs these arguments with technical data. For instance, one environmental advocate in the Oil and Gas Rule argued that "data on the cost of emissions controls or techniques and practices, and data on how much they reduce emissions are very, or certainly powerful." Another in the Tailoring Rule made a similar claim suggesting "you need to get in on technical engineering side and the cost side, you need both prongs to have an impact." This is also apparent in the 2012 CAFE Standards Rule, where environmentalists were interested in showing their standard was both technically feasible and cost effective. These claims were not universal, but they do speak to the potential value of employing both technical and cost arguments when influencing the agency.

Legal

Finally, stakeholders also used a legal frame, though less frequently than each of the aforementioned frames. As noted, arguments related to the legal frame were most common in the Tailoring Rule, but they did appear across the other two rules as well. Figure 5 illustrates that interviewees most commonly made arguments that referenced the EPA's legal or regulatory authority and the process or approach that the EPA was taking to accomplish their goal.



Figure 5. Most Frequent Terms Associated with the Legal Frame

In this context, environmental interviewees were largely focused on using legal arguments to assert that the rule would survive judicial review, while industry interviewees used the arguments to question its statutory basis. For example, one environmental interviewee noted "the EPA relied on different theories for how they could do what they did, we were less enthusiastic about the absurd results approach, or the idea that regulation leads to absurd results, that was going to come back to bite them, and we thought that the EPA could have achieved the same outcome by relying on administrative necessity a different legal theory." Another interviewee argued that they knew the agency was "focused on achieving reductions from large sources, from that perspective we were focused on sensible policy design, how we ensure that the policy design is as legally rigorous as it should be." In the Oil and Gas Rule, environmentalists also used legal arguments. In this case, it was largely to push the agency to act

as one advocate argued "we kicked into overdrive trying to argue that there was authority and almost a mandate to regulate methane." Environmental interviewees took a similar approach in the 2012 CAFE Standards Rule as one interviewee argued that they attempted "to push the EPA to go further than they want to go by legal and technical advocacy."

Industry also employed legal arguments, but often to question whether the EPA should produce these rules. For example, one interviewee in the Tailoring Rule commented "we questioned whether the EPA had the authority to act." Another suggested "we raised questions about the legality of the rule, but then focused on implementation issues." The interviewee went on to suggest they told the agency "it is pretty bold to deviate from statutory language that seems like a sketchy thing for you to do." Industry interviewees in the Oil and Gas Rule also used the legal frame, and here they focused on threatened litigation if the rule went beyond the EPA's authority. Here, one interviewee commented "We drew a box around them. By your own legal authority here is the box you play in." Another suggested, that they "inform them at this stage that if they do not listen to us or ignore our concerns it might be sent to litigation and they may get a remand on this." Industry took a similar approach in the CAFE Standards Rule as one interviewee argued that the EPA demonstrated "inadequate justification and lack of statutory authority on this."

Though interviewees from each case did employ arguments associated with this frame, it was most common in the Tailoring Rule. The comparative lack of legal arguments in the Oil and Gas Rule and 2012 CAFE Standards Rule is explainable. First, the Oil and Gas Rule was driven by litigation, thus the legal question regarding whether or not the agency should regulate was already decided. In this instance, one industry interviewee suggested that industry may have missed the opportunity to employ legal arguments with any success given that the "regulated"

community was outside this [litigation] process. We should have tried to be in the room and intervened on this to offer both sides of the issue. We should have helped EPA make the case or argued that more time was needed."

In the case of the CAFE Standards Rule the authority for the EPA to act had also largely been settled via *Mass et al. v. EPA et al.* and *Coalition for Responsible Regulation v. EPA*. Interviewees attested to the value of the *Mass et al. v. EPA et al.* decision, particularly on the environmental side where one noted "the Supreme Court was huge in this case. It showed that the EPA has the authority to do this, super legitimacy on this." As such, one environmental interest argued "that the auto industry was resigned to the fact that there would be regulations in this area." Moreover, those auto manufacturers that submitted commitment letters to the proposed rule, represented 90% of the market and in line with their support agreed not to sue (NHTSA 2011).

Thus, the lack of legal arguments in these two cases is explainable given that legal questions surrounding the EPA's authority had already been settled. In comparison, the significant presence of legal arguments in the Tailoring Rule is understandable because of the lack of precedent. The fact that the Tailoring Rule was a "first generation" rulemaking was highlighted by one interviewee who noted that "this one dealing with GHGs and any first generation policy was certainly going to get challenged." Therefore, interest groups may be more likely to offer legal arguments in these rulemakings, with the belief the agency will listen to them because of their uncertain legal future.

Perceived Influence of the Legal Frame

Interviewees' limited use of the legal frame tracks with their belief that it provides less value at this stage than the other frames. Nevertheless, some interviewees defended the value of

this frame, as an environmental advocate in the Tailoring Rule noted "the agency is very interested in having rules that are legally defensible. So, you provide feedback on how the EPA could strengthen the rule." Another in the Oil and Gas Rule concurred suggesting "strong technical or legal arguments" can be the most influential with the EPA. One industry interviewee in the Oil and Gas Rule agreed and elevated these arguments over fiscal ones noting "the EPA does not care about the cost argument they care about litigation, where might they be vulnerable from a litigation perspective, they want to bullet proof the rule." Another agreed suggesting "if it gives them enough concern over litigation, they might address it."

This was a minority opinion and some other interviewees openly questioned the value of these arguments. For example, one industry interviewee in the Tailoring Rule case argued "there are a lot of legal arguments to bring up, but it seems to not have as much sway with the agency." Another that participated in this rule argued "others are always looking for silver bullet [legal] arguments to make this go away...if they can blow it up great, but if not can we make this more livable." This perception that legal arguments may not be valuable in influencing the agency at this stage in the process likely explains why comparatively fewer interviewees use them. At the same time, litigation did play a role in each of these three cases, and potentially in first generation rulemakings such as the Tailoring Rule, these arguments might have more impact over the agency. Because of this possibility scholars should evaluate interest group's use of this frame in other contexts.

Overall Influence during the Pre-Proposal Stage

Though interest groups believed that employing arguments related to the expertise frame was most important in influencing the agency, interviewees from both sides employed these arguments. As a result, the question is whether certain groups used these frames more effectively

than others, or if some other factors might explain whether certain interests were more influential on the content of each proposed rule. This section relies both upon the perspectives of interviewees and public docketed information available from the pre-proposal stage to address which groups might have been most influential in each rule.

The Tailoring Rule

For the Tailoring Rule, there was some agreement from interest groups that once the agency began to draft the rule, it had a sense of what the content would be. As such, interest groups generally argued they had relatively little influence over its content, regardless of the arguments that they made. For example, one industry interviewee commented "I think they had a definite vision for what they wanted to do." Another argued "this seemed like more of a traditional rulemaking, where the agency put out a rule and then asked for comment. I do not know that there was any group that had sway" before the proposal.

The lack of perceived influence during the drafting of the rule, does not suggest that interest groups did not have any impact on the rules content during this stage of the process. Rather, this influence may have occurred earlier, via the ANPRM process. More directly, the EPA specifically asked commenters to discuss the implications of publishing an endangerment finding on triggering PSD and Title V permitting before the agency started drafting this rule. The EPA received over 280,000 comments on this ANPRM. Environmental and business interests were among these commenters. For example, the Clean Air Task Force, Natural Resource Defense Council, Sierra Club, Union of Concerned Scientists, and other environmental groups (2008) submitted a joint comment. These groups advocated for a phased-in permitting structure

_

⁴⁵ The ANPRM process occurs prior to an agency drafting a proposed rule, and are only rarely used across the bureaucracy (Kerwin & Furlong 2011).

⁴⁶ The Advanced Notice of Proposed Rulemaking for Greenhouse Gases Under the Clean Air Act docket, and its associated comments are available here: https://www.regulations.gov/docket?D=EPA-HQ-OAR-2008-0318.

based upon emitter size for Title V. The commenters went on to suggest that the EPA could do the same for the PSD program for certain large sources immediately and then add in smaller sources in three to four years. These commenters did not support establishing emission thresholds of any kind to serve as a cut-off for the PSD or Title V permitting programs, given legal concerns related to the plain language of the statute (Clean Air Task Force et al. 2008).

In comparison, the U.S. Chamber of Commerce also submitted a comment on this docket and concluded that, if finalized, the rule would result in 40,000 new PSD permit applications each year and 1.2 million facilities would be subject to annual Title V permitting requirements (U.S. Chamber of Commerce 2008). The U.S. Chamber of Commerce argued that these permit applications would swamp state and federal capacity either requiring much larger budgets to process the permits or lead to significant delays harming economic growth. These issues led the U.S. Chamber of Commerce to conclude that the agency should not publish an endangerment finding or subsequent regulation to address these permitting issues, because the organization did not believe the agency had the statutory authority (U.S. Chamber of Commerce 2008).

Agency personnel noted that these comments impacted their decision making processes, and the content of the proposed rule (personal communication with author). The proposed rule also illustrates that the concepts and ideas in interest group comments did appear in the draft rule. For example, the EPA specifically noted the U.S. Chamber of Commerce comment within the proposed rule, as a justification for establishing emission thresholds that limit the potential flood of new permit applications (EPA 2009d). Though the U.S. Chamber of Commerce (2008) did not support the regulation, the EPA's efforts to limit the impact of the regulation were directly related to the comments submitted by this organization. Environmentalists also likely played a role at this stage in the process. The agency eventually published the endangerment

finding and began work on the Tailoring Rule. This was clearly in line with environmental interests goals to regulate GHG emissions from large point sources. In addition, the EPA finalized the phased-in approach to introducing Title V and PSD requirements, which environmental interests also advocated for (Clean Air Task Force et al. 2008).

Therefore, interest groups may have had less influence via the arguments they used during their informal interactions with agency personnel, but they likely did wield influence over the EPA's proposal via the ANPRM process. Given that the agency decision addressed both environmental and business concerns, it is likely that the influence these groups did have on the rule's content was relatively balanced at this stage in the process.

Oil and Gas Rule

In comparison, interviewees argued that they had significant influence on the proposed Oil and Gas Rule, both in getting the rule to the agenda and impacting the rule's content. Environmental groups argued that simply getting the rule to the EPA's agenda was a victory. Here, one environmental advocate noted "we were trying to convince EPA to take regulatory action on climate change . . . and sources of methane in particular." Another noted, this "rulemaking was long overdue" and the successful settlement agreement to require EPA to address this area was its own success. Recall, the EPA had not updated the NSPS for 20 years and the environmental groups' lawsuit placed the rule on the agenda of the EPA and required them to produce a rule. Therefore, environmental interest had in some respects already won by requiring the agency to produce a rule to achieve its stated priority of reducing VOCs and methane emissions from the oil and gas sector. After this point, environmental interests were focused on ensuring that they received the most stringent rule possible. Therefore,

environmentalist litigation was a key point of influence, because it is unclear whether the EPA would have conducted this rulemaking absent this activity.

In addition to this influence, environmental interviewees argued that they did exert influence on this rule via their use of the expertise and fiscal feasibility frame with agency personnel. These assertions can also be supported by information available in the docket. As one example, the Environmental Defense Fund and the Wyoming Outdoor Council went to the OMB and highlighted the feasibility and cost effectiveness of green completion technology, regulating Glycol Dehydrators, and replacing wet seals with dry seals on centrifugal compressors (Paranhos 2010). Ultimately, these stipulations were included in the draft rule, suggesting these interests may have influenced the EPA's decision making on these fronts. This is notable given that prior to the publication of the proposed rule, the Interstate Natural Gas Alliance of America (INGAA) met with the EPA and argued against the use of dry seals particularly for existing compressors (INGAA, 2011). Thus, it is likely that environmental groups also impacted the content of the draft rule.

Though environmentalists did have influence on the proposed rule, interviewees from both perspectives cautioned against suggesting environmental interests drove the process. Rather, the influence these interests may have had on the content is likely tempered by the position of industry. As one environmental interest argued "it did not seem that industry was pushing back too hard...industry was somewhat on board." Industry to an extent concurred as one interviewee argued "we knew there was likely to be a significant expansion of the existing rules, a lot of this was based on the Natural Gas STAR program, so we provided the best information on cost associated with those technologies." From the foundation that more regulation was on the

.,

⁴⁷ The Natural Gas STAR program is a voluntary partnership between public agencies and private companies to reduce methane emissions. See: https://www3.epa.gov/gasstar/.

horizon, industry interviewees commonly noted that they were focused on educating EPA on their operations to ensure the rule "did not significantly impact production" given that the agency "did not have a lot of field experience or operational experience with the oil and gas industry." This included those industry personnel with experience implementing the requirements of Colorado and Wyoming, which both had adopted green completion requirements as promoted by environmental interests (personal communication with author).⁴⁸

Unfortunately, there is limited docketed information to corroborate these claims, which makes it difficult to conjecture on the role of business interests in shaping the proposed rule. Regardless, it is clear that environmental interests were influential in getting the rule on the agenda and influencing its content. Thus, I conclude that environmentalists were the most influential on this rule, which is in contrast to my conclusion in the Tailoring Rule.

2012 CAFE Standards Rule

Finally, interest groups from both sides believed they had significant influence over the content of the proposed rule in the 2012 CAFE Standard Rule and this is evident in the public record as well. Environmental interests in the 2012 CAFE Standards Rule noted some important victories at this stage in the process. For example, one environmental advocate suggested "looking at the big picture the stringency was 54.5 mpg we wanted 60, as a part of our Go 60 Campaign, so we believe we had a big role to play in that." The role of the expertise frame, was also at play. For example, environmentalists defended this position with a series of papers and polls that suggested that this standard was technically feasible and supported by 65% of the public (Lacey, 2011).

⁴⁸ Green completion refers to capturing methane emissions when completing a well.

⁴⁹ The "Go 60 Campaign" was launched by a coalition of 20 environmental and consumer interests, prior to the proposed rule to drum up support for a stringent 60 mpg standard (Plautz, 2010).

Environmentalists were not the only ones influencing the EPA. In fact, the EPA was negotiating with business interests as well in an attempt to generate support for the rule. As one agency interviewee argued, "It was important to the administration, that we get auto industry support...we knew we did not need [all the manufacturers to sign on], but we did need a quota to approve the strawman rule, we needed at least one of the big three [Chrysler, Ford, or GM] to sign on." GM was ultimately one of the first to support the rule (Hwang, 2011) and by the conclusion of the pre-proposal stage ultimately 90% of the auto industry supported the draft rule (The White House, 2011). One important reason why all of these manufacturers signed on was the inclusion of a midterm review to re-evaluate the stringency of the standard for model years 2021 - 2025. One industry interviewee asserted "a midterm review...was the number one issue we worked on during the pre-proposal stage." The EPA agreed to this midterm review in the proposed rule and industry personnel attributed this to their dialogue with agency personnel.

Overall, environmentalists were able to get a rule that was close to their overall goal of 60 mpg by 2025, but business interests were able to get the EPA to reconsider the standards and their feasibility before later year requirements for MY 2021 – 2025 took effect. Therefore, the negotiations between environmentalists, business interests, and agency personnel drove the outcome of this rule and so the outcome appears generally balanced.

Summary Contributions

The overall goal of this chapter was to outline the cases, the strategies interest groups used to influence the agency, and to what effect. It is clear that stakeholders were frequently involved during the pre-proposal stage of each rulemaking and over 80% of the interviewees

-

⁵⁰ In this instance, manufacturers submitted letters of commitment to participate in the 2012 CAFE Standards Rule the day the process was announced, with the stipulation that they would participate only if the EPA would include an appropriate mid-term review mechanism (Alliance of Automobile Manufacturers, 2010).

used the informal interactions strategy to influence agency personnel and the content of the proposed rule.

The frame analysis reveals that arguments associated with the instructive frame were most common, but stakeholders argued that technical arguments associated with the expertise frame were the most effective pathway to influence the agency via this strategy. This finding is consistent with the work from Rinfret (2011c) for uncontroversial rules, suggesting it is also applicable for controversial rules. The important addition to this framing literature is clarifying the role of the instructive frame and how it can set the stage for interest group use of expertise-related arguments. Simply put, the instructive frame allows the interest group to establish the scope of the problem and its potential solutions. After establishing this overall framework groups employ the expertise and in some cases the fiscal feasibility frame to support their stated position. Thus, the origin of interest groups arguments start from the application of the instructive frame.

Given interviewees from both coalitions were using expertise-related arguments, I relied upon the perspectives of interviewees and available public information to evaluate whether certain interests were more influential on outcomes than others. This analysis provides some important insights for how we study interest group influence during the pre-proposal stage of the process. To begin, the interviewees and the case histories reflect that an evaluation of agenda setting and litigation in particular, can be a key influence point. In the case of the Oil and Gas Rule, environmentalist litigation was critical in driving the outcome. Though environmentalists may have also been more influential than business interests during the drafting of the propose rule, without accounting for this earlier activity the difference in impact may not have been as clear.

Thus, evaluating interest group activities even before the agency started drafting the proposed rule was important in explaining the outcome in this case. This is an important conclusion, because often the literature focuses on interest group activities during the actual drafting of the rule and less so on how the rule came into being (Wagner et al., 2010; Rinfret 2011a; 2011b; 2011c; Yackee, 2013). This would not offer a comprehensive understanding of the outcome in the Oil and Gas Rule. Therefore, this research illustrates that analyzing how a rule came into being is important for determining which groups had the most influence on the rule's content.

Though this is important, across each of the three rules interest group activity later in the regulatory process also impacted the outcome of the proposed rules. For example, in the Tailoring Rule, the ANPRM process was the critical access point for interest groups and this was a function of how the EPA produced this rulemaking. In this case, interest groups had relatively little opportunity to informally engage with agency personnel during the drafting of the rule. In comparison, the EPA conducted a similar, though less formal, NOI process in the 2012 CAFE Standards Rule, but here they also incorporated stakeholder negotiations between agency personnel and stakeholders. In this context, these informal interactions were critical in explaining the overall outcome. As a result, this work suggests that evaluating interest group influence during the pre-proposal process should evaluate interest group activities relating to agenda setting and litigation, while also analyzing the arguments they use during the drafting of a proposed rule.

With this broader platform for analysis, I argue that environmentalists likely had more influence over the outcome of the Oil and Gas rule than business interests. In comparison, it

.

⁵¹ Recall, in the NOI process the EPA publishes documents regarding the technology or policy options they are considering and stakeholders have the opportunity to comment on those options. The EPA is not required to submit a formal response to these comments as they are required via an ANPRM.

would appear that both sides influenced the draft rule in each of the other cases. In the Tailoring Rule this is illustrated by the actions of the EPA after the ANPRM process, and via the negotiation processes between stakeholders and agency personnel in the 2012 CAFE Standards Rule. In these cases, it would appear that interest group influence was more balanced.

These two cases, track with the conclusions of Rinfret (2011c) that influence is balanced at this stage in the process, while my conclusions in all three run counter to Wagner et al.'s (2010) assertion that business interests dominate. Therefore, for controversial rules at the EPA interest group influence during the pre-proposal process may be somewhat balanced or tipped towards environmental interests. The subsequent chapter evaluates whether similar influence trends are present during the notice and comment stage of the process, while Chapter 6 revisits these assertions and compares influence across the stages.

Chapter 5

Interest Group Influence during the Notice and Comment Stage

Interest groups were heavily involved in the pre-proposal stage of the process and both environmental and business interests were able to influence outcomes as a result. I argue that influence was generally balanced or tipped towards environmental interests during the preproposal stage of the process. The goal of this chapter is to evaluate the presence, strategies, and influence of stakeholders during the notice and comment stage. To address these objectives this chapter is structured in three parts. First, I document the strategies that interest groups used to influence the agency and the number of rule changes granted across each of the three rules. Second, I summarize all of the rule changes the EPA made to clarify the scope of change and related group influence. Most importantly, I document the groups that the agency made the change in response to, as it is these groups that then wielded influence over the outcome of each rule. Third, I analyze what factors might help explain why certain groups received a rule change in response to their comment over others. Here, I conduct a public comment content analysis to offer a more complete understanding of why certain groups can influence the EPA at this stage in the process. This chapter concludes with a summary of the aforementioned results along with the perspective from interviewees regarding their role and influence in the notice and comment stage. Chapter 6 then compares my findings in this chapter to those from the pre-proposal stage. Interest Group Strategies during Notice and Comment Stage

Across all three rules, interest groups remained involved in the rulemaking process, as exemplified by the number of submitted comments for each rule. The goal of this section is to

evaluate the strategies employed by stakeholders during the notice and comment stage to understand how interest groups attempted to influence the agency.

Ultimately, submitting public comments was a strategy employed by all of the interviewees across the rulemakings (see Table 8). This is logical, given the interviewees sourced for this study came from those groups that submitted public comments. Nevertheless, the literature illustrates that submitting public comments is an important strategy for interest groups, because participation can result in rule changes, while also offering a concerned party a platform to sue the agency (Kerwin & Furlong, 2011). Rinfret (2011c) argues that this strategy may not be as important in noncontroversial rules, because in these contexts interest group participation can fall off after the draft is published (Rinfret 2011c).

Interest groups also employ some other strategies to influence the outcome at this stage in the process, though at significantly lower rates as reflected in Table 8. After submitting comments, lobbying White House personnel or other agencies (outside of the OMB process), and attending public hearings were the two most common strategies referenced by interviewees during this stage in the process.

Table 8. Percentage of Interviewees that Participated in Certain Notice and Comment Activities N=69

| Strategy | Tailoring | 2012 CAFE | Oil and Gas | Cumulative |
|-------------------------|-----------|---------------|-------------|------------|
| | Rule | Standard Rule | Rule | Total |
| Attend public hearings | 12% | 30% | 24% | 23% |
| Informal contact after | | | | |
| notice | 18% | 26% | 14% | 19% |
| Lobby Congress | 12% | 9% | 24% | 16% |
| Lobby White House/other | | | | |
| agencies | 41% | 4% | 38% | 28% |
| Mobilize grassroots | 0% | 9% | 24% | 13% |
| Other strategy | 0% | 0% | 3% | 1% |
| Submit public comment | 100% | 100% | 100% | 100% |
| Total Interviewees | 17 | 29 | 23 | 69 |

Despite these other activities, interest groups argued that submitting public comments was an important pathway for influence at this stage. These beliefs are confirmed by the data as some interest groups were granted rule changes through their submitted public comments. Table 9 illustrates that the EPA made changes in response to these public comments across each of the three rules. Overall, the EPA made 77 revisions to these rules, and the Oil and Gas Rule saw the most changes, followed by the 2012 CAFE Standards Rule and the Tailoring Rule and those groups that requested these changes had direct influence over the outcome.

Table 9: Rule Language Revisions by Rule

| Rule | Total Revisions |
|------------------|-----------------|
| Tailoring Rule | 15 |
| 2012 CAFE Rule | 29 |
| Oil and Gas Rule | 33 |

Interest Group Influence on Notice and Comment Stage

The goal of this section is to determine which groups were granted these rule changes, what effect did they have, and what might explain why the group received the rule change they did. For each rule, I start by summarizing all of the rule changes and document the groups that requested the changes. I also clarify the scope and impact of the rule changes on the final outcome. This analysis is important because it provides a sense of the scale of influence that interest groups had at this stage, so I can more effectively compare to the pre-proposal process in Chapter 6.

Though this analysis is valuable, it may not offer a complete understanding of why individual groups received rule changes over others within their same organization category and potentially across categories. A subsequent review of the content of public comments submitted for each rule serves this goal, offering another means to explain why certain groups were influential based upon the group's location or the content of their public comments. Thus, I go

further in each section by evaluating each group's public comment in an effort to explain why certain groups might be more likely to receive rule changes than others.

The Tailoring Rule

Over 405 interest groups submitted unique public comments to the EPA regarding the Tailoring Rule. Figure 6 illustrates the breakdown of stakeholder participants. About two thirds or 276 of these commenters were associated with a business interests. Many of the remaining commenters were associated with state governments and environmental interests respectively. The other category of interest groups is varied and includes academic institutions and think tanks. Ultimately, these groups rarely received a rule change and are thus not evaluated in more detail. In contrast, the significant presence of state government interests, most commonly state agencies, was a novel finding in this dissertation. Moreover, these groups did receive rule changes. As a result, the role of state agencies in influencing the agency in the notice and comment stage is evaluated in more detail in this and the other two rules.

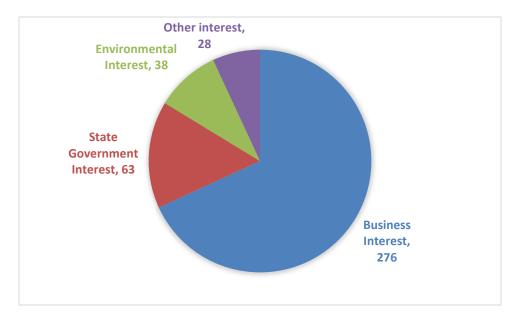


Figure 6. Interest Group Commenters by Type for Tailoring Rule

The EPA made 15 revisions to the Tailoring Rule in direct response to public commenters (See Table 9). These revisions addressed a wide range of topics and Table 10 offers a brief description of each change and the number of commenters that advocated for the change by group type. It is common that more than one group will ask the EPA to make a rule change. Interviewees noted that this can be a reflection of interest group cooperation in developing responses to public comments, or a function of the fact that different businesses or interests might benefit from the same rule change. For this project, and in line with the literature (Yackee & Yackee, 2006; Kamieniecki, 2006), if a group requested a rule change and was mentioned by the EPA as causing that rule change, the group is considered to have influenced the outcome.

Of all the rule changes outlined in Table 10, the most significant change was related to the EPA's decision to revise the emission thresholds from those stipulated in the proposed rule. Ultimately, the EPA agreed with some business and state interest commenters that argued the agency had underestimated the number of sources that would be triggered by the proposed thresholds. As a result, the agency increased the first phase GHG threshold from the 25,000 tpy of CO₂e to 75,000, and the second phase to 100,000 tpy of CO₂e (EPA, 2010b). The EPA made another significant revision addressing how state agencies could implement the rule that also warrants attention. Here, state agencies were concerned that the rule as written would require states to enact new enabling legislation granting them authority to implement the GHG permitting requirements. The EPA revised the rule to allow for implementation under existing state law (EPA, 2010b). Given the increase in thresholds in particular, the Tailoring Rule endured significant change as a result of the notice and comment stage. This is because the stringency of the rule, in terms of the facilities covered was significantly altered by these revisions (Shapiro, 2013).

Table 10. Summary of Rule Revisions in Tailoring Rule and Groups that Requested each Specific Change

| Revision | Groups that Requested the Change by Type | | | | |
|---|--|---------------|------------|--------|--|
| | Business | Environmental | State | Other | |
| | Groups | Groups | government | Groups | |
| | | | entities | | |
| Revise Global Warming Potential Rate | 13 | 1 | | 1 | |
| Methodology | | | | | |
| Revise estimates relating to hiring | | | 21 | | |
| permitting staff | | | | | |
| Update and increase estimated permitting | | | 13 | 1 | |
| burden for certain sectors | | | | | |
| Increase estimated # of major | 11 | | | | |
| modifications per year from | | | | | |
| approximately 200 to over 9000 | | | | | |
| Increase estimated # of minor | 27 | | | | |
| modifications from 2 – 4% | | | | | |
| Reduce capacity assumption associated | 1 | | | | |
| with electricity sector modifications | | | | | |
| Increase threshold for first phase from | 21 | | | 2 | |
| 25,000 to 75,000 | | | | | |
| Increase residential permitting approval | 2 | | 6 | | |
| and review times | | | | | |
| Increase public participation requirement | | | 1 | | |
| costs | | | | | |
| Increase permit processing times for | 1 | | | | |
| residential permits given higher resource | | | | | |
| allocation requirements | | | | | |
| Adjust eligible facilities to ensure existing | 1 | | | | |
| unregulated minor modifications are not | | | | | |
| considered major | | | | | |
| Factor in higher estimate of synthetic | 2 | | 1 | | |
| minor modifications that are required to | | | | | |
| submit permits | | | | | |
| Clarify impact on landfills | 1 | | | | |
| Increase second phase threshold to | 54 | | 12 | | |
| 100,000 | | | | | |
| Revise implementation requirements to | 20 | | 2 | | |
| avoid state statute changes | | | | | |
| Totals | 154 | 1 | 56 | 4 | |

This information provides some key insights. Business interests were the most frequent group type to receive rule changes from the EPA during the public comment period. In fact, at least one business interest requested 12 of the 15 rule changes published by the EPA. Therefore, when analyzing the outcome of the rule at this stage, business interests had a significant impact. After business interests, state government interests were the second most frequent interest to

receive a rule change with direct involvement in 7 of the 15 rule changes the EPA finalized.

Overall, only one environmental group was referenced as being at least partially responsible for a rule change. These findings suggest that during the Tailoring Rule notice and comment stage business interests were more influential than environmental groups.

Though Table 10 documents all the groups that were responsible for each specific rule change, it does not specify how many unique groups received rule changes. A variety of groups were granted more than one rule change, such as the Missouri Department of Natural Resources and the Intel Corporation (Missouri Department of Natural Resources, 2009; Intel, 2009). Table 11 shows the number of organizations that received at least one rule change within the Tailoring Rule. Ultimately, 75 unique trade organizations or individual businesses, accounted for the 12 rule revisions granted to business interests. Therefore, of the 276 business interests that commented, 75 or 27% influenced the final rule. In comparison, 38 state-related interests received a rule change followed by only one environmental organization. Therefore, at this stage in the Tailoring Rule, business and state government interests were more influential than environmental groups.

Table 11. Tailoring Rule Commenters that Received a Rule Change by Interest Group Type as Compared to all the Commenters from the same Category

| Interest Group | Commenters that | Total | |
|------------------|-----------------|---------------|--|
| | Received a Rule | Commenters by | |
| | Change | Organization | |
| | | Type | |
| Trade/Business | 75 | 276 | |
| Interests | | | |
| State Government | 38 | 80 | |
| Interests | | | |
| Environmental | 1 | 38 | |
| Interests | | | |
| Other Interests | 1 | 11 | |
| Total | 115 | 405 | |

Public Comment Analysis

Though business interests received the most rule changes, not all business interests were successful. In addition, some state and environmental interests were granted rule changes, so the question is, why did some groups receive rule changes as opposed to others? The literature suggests that 1) the type of group; 2) the location of said group; 3) the overall comment length; and 4) the technical nature of a comment may all impact whether a group receives a rule change in response to their submitted comment. I coded the public comments across these metrics, and developed eleven variables for further testing in a multivariate logistic regression.

The first step in this process is to conduct bivariate regressions between each of the independent variables and the dependent variable rule change to ensure the variables have an effect on the outcome. The full results of these analyses are included in Appendix D and for our purposes here all eleven variables were correlated with the independent variable, rule change and included in the multivariate analysis. Though these variables were significantly related with the dependent variable rule change, it is possible that some or all of these variables are significantly correlated to each other and thus are not adding to our understanding of what causes rule changes but rather measure the same or substantially similar effects (Pollock 2012). As such, conducting a pairwise correlation analysis can illustrate the interactions between each pair of independent variables. Those pairs with correlations > 0.5 warrant additional analysis to ensure that the variables are measuring different relationships (Pollock 2012). The full results of the pairwise correlation analysis are included in Appendix D. Ultimately, no pair of variables was highly correlated, and so each variable can be included in the multivariate analysis and be considered a unique independent variable.

The results of the multivariate regression are illustrated in Table 12. Recall, that logistic regression models produce probability based estimates where the presence of a variable is more or less likely to be correlated with changes in the dependent variable in this case rule change. In the context of the Tailoring Rule, three variables were considered statistically significant (p value <0.05) including state government interest, technical arguments, and number of recommendations.

As Table 12 illustrates, public comments written by state agencies are more likely to receive a rule change. This may be explainable in the context of the Tailoring Rule given the role of states in permitting processes. Simply put, state agencies play a critical role in reviewing and approving EPA permits and enforcing federal regulations (Vig & Kraft 2013). Thus, states can be considered implementation partners, and so the agency may have been interested in addressing these interests concerns because of their unique role in the process. Moreover, this is in line with the descriptive results, as state agencies almost exclusively asked for the revisions to the EPA's permitting assumptions that informed the agency's decision regarding the impact that the proposed rule would have on these agencies.

Therefore, at least in this case, any state interest is more likely to receive a rule change purely based upon their organization type. Though this variable was significant, it does not explain why certain state government interests received rule changes while others did not.

Furthermore, it does not help us understand why certain business interests (who received the most rule changes) received rule changes over others.

This is where the other significant variables play a role including the presence of technical arguments and the number of recommendations within the comment. First, those interest groups that included more technical content in their comment were more likely to receive

a rule change than those interests that included more policy, legal, or fiscal arguments. Moreover, those comments that included more recommendations were also more likely to receive rule changes regardless of group type. In fact, this is most significantly correlated variable with the dependent variable rule change at p-value <0.000.⁵² Overall, the complete multivariate model explains about 33% of the variation in the dependent variable rule change when accounting for the unique effect of all the variables.

Table 12. Public Comment Regression Results for Tailoring Rule (statistically significant findings in bold)

| Variable | Coefficient | Probability of Change by Unit | P value |
|-------------------------|-------------|-------------------------------|---------|
| | | Change in X | |
| DC Location | 0.37 | 45% | 0.294 |
| State Government | 2.23 | 830% | 0.007 |
| Interests | | | |
| Environmental | -1.25 | -71% | 0.289 |
| Interests | | | |
| Trade/Business | 0.82 | 127% | 0.299 |
| Interests | | | |
| Fiscal Arguments | -0.39 | -32% | 0.822 |
| Legal Arguments | 2.55 | 1180% | 0.095 |
| Technical | 3.45 | 3050% | 0.032 |
| Arguments | | | |
| Policy Arguments | 0.721 | 106% | 0.643 |
| Number of | 0.405 | 50% | 0.000 |
| Recommendations | | | |
| Page Count | 0.013 | 1% | 0.401 |
| Intercept | -5.22 | NA | 0.001 |

Summary Results

Overall, business interests received the most rule changes in the Tailoring Rule and were more influential than environmental interests. In addition, these rule revisions significantly

⁵² In addition, when you consider the bivariate analysis (See Appendix D), this variable alone explained about 22% of the variation in the independent variable rule change. In that analysis, the regression model, could accurately explain whether 22% of the interest groups that commented did or did not receive a rule change based on the total recommendations they made.

altered the outcome of the rule, as illustrated by the significant changes to the permitting thresholds. These conclusions about the influence of business interests are consistent with the literature, but this analysis also offers some novel results. First, this case reveals the important role that state agencies can play in influencing rule outcomes at this stage in the process. Second, this work illustrates the importance of reviewing comment content and particularly documenting the total recommendations a stakeholder includes to explain why the agency will make a rule change in response to a comment.

The Oil and Gas Rule

In the Oil and Gas Rule, 175 interest groups submitted public comments. In this rule trade and business groups made up about half or 86 of the commenters, followed by environmental interests and then state government interests. Though environmental groups made up a larger proportion of interests than was the case in the Tailoring Rule, business groups still dominated in terms of total submitted comments.

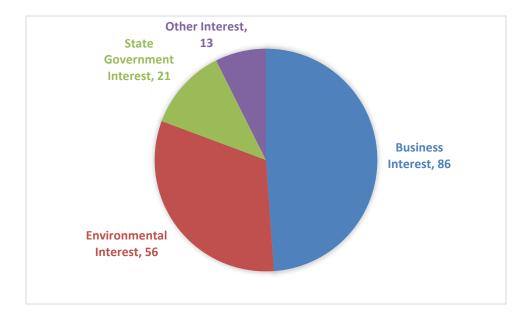


Figure 7. Interest Group Commenters by Type for Oil and Gas Rule

The EPA made 32 revisions to the Oil and Gas Rule making it the most frequently revised rule of the three analyzed in this study. Table 13 summarizes all of the rule changes that the EPA granted in response to comments and documents those groups that requested the changes. Ultimately, the intent of the rule to require green completion technology on wells that employ fracking technology was retained in the final rule, but the rule did make numerous revisions related to other compliance requirements. In this case, the EPA published a summary of the key changes which included confirming which natural gas wells were required to comply, exempting certain low-pressure wells from compliance, extending the green completion compliance deadline, reducing pre-notification requirements from thirty days to two days, and removing certain compliance requirements such as dry seal compressors among others (EPA, 2012d). Though the EPA made 32 changes, none of these changes were as significant as those to the Tailoring Rule in terms of changing the overall stringency of the rule. As a result, the overall scope of interest group influence in this rule was more limited than was the case in the Tailoring Rule.

Table 13 illustrates that business interests again received the most rule changes. At least one business interest requested 28 of the 32 rule changes granted by the EPA during the notice and comment stage. This is consistent with my findings in the Tailoring Rule. State government interests, were not as successful in receiving rule changes in this rule as they were in the Tailoring Rule. These interests were party to only seven of the 32 revisions. On the other hand, environmental groups had more success here than the Tailoring Rule, as these groups were involved in six of the 32 revisions. Nevertheless, business interests again had the most influence over the EPA, as reflected by the fact business interests had more of their requests granted than other interests.

Table 13. Summary of Rule Revisions in the Oil and Gas Rule and Groups that Requested each Specific Change

| Revision | Grou | ips that Requested | the Change by | Гуре |
|---|--|--------------------|---------------|-----------|
| | Business | Environmental | State | Other |
| | Interests | Interests | government | Interests |
| | | | Interests | |
| Phase-in compliance to ensure adequate | 15 | 1 | 1 | |
| completion equipment is available | | | | |
| Establish when flowback begins and ends, | 6 | 1 | 2 | |
| to establish when completion equipment is | | | | |
| required | | | | |
| Establish when refracked wells qualify for | 3 | 13 | 1 | |
| completion equipment | | | | |
| Reduce reporting requirements from 30 | | | 2 | |
| days ahead of well completion to 2 days | | | | |
| Remove affirmative defense reporting | 2 | 1 | | |
| requirements | | | | |
| Remove dry seal compressors from | 2 | | | |
| compliance | | | | |
| Remove requirement that wet seal | 14 | | | |
| compressors adopt dry seals | | | | |
| Remove hourly monitoring requirement for | 5 | | | |
| rod packing | | | | |
| Clarify the commence construction | 5 | | | |
| definition | | | | |
| Clarify that screw compressors are not | 6 | | | |
| required to comply | | | | |
| Clarify that compressors adjacent to fields | 1 | | | |
| are not required to comply | | | | |
| Clarify which controls are effected | 1 | | | |
| Clarify what entity is required to report | 1 | | | |
| progress | | | | |
| Clarify sweetening definition | 1 | | | |
| Phase-in compliance for storage tanks | 1 | | | |
| Establish what fracturing processes qualify | 1 | | | |
| for completion requirements | 1 | | | |
| Clarify this rule refers only to onshore | | 13 | | |
| facilities | | | | |
| Establish the definition of a gas well to | 1 | | | |
| determine which wells must adopt green | 1 | | | |
| completions | | | | |
| Revise the well site definition to determine | 6 | | | |
| boundaries | | | | |
| Allow for the beneficial reuse of natural gas | | 1 | | |
| near or on-site | | | | |
| Clarify a workover is not subject to | 3 | | 1 | |
| regulation | 1 | | | |
| Clarify the definition of flare | 6 | | | |
| Establish combustion exemptions in those | 4 | | 1 | |
| cases where capturing natural gas is | ' | | | |
| infeasible, or costly | | | | |
| Clarify that this regulation does not address | 6 | | 1 | |
| methane | | | * | |
| | <u>i </u> | 1 | 1 | l |

| Exclude storage without potential for flash emissions from rule | 1 | | | |
|---|-----|----|---|---|
| Revise a risk assessment error relating to NESHAPs | 1 | | | |
| Clarify what storage vessels are for the purpose of this rule | 1 | | 1 | |
| Require more stringent temperature accuracy for measurements | 2 | | | |
| Require less stringent reporting, such as quarterly | 2 | | | |
| Allow industry to calculate and not measure inlet flow | 2 | | | |
| Do not require industry to analyze Benzene or Sulphur relating to NESHAPs | 2 | | | |
| Total | 103 | 30 | 9 | 0 |

As was the case in the Tailoring Rule, some groups received multiple rule changes in response to their comments. Table 14 illustrates that 39 business interests received at least one rule change within the Oil and Gas Rule. As was the case in the Tailoring Rule, more business groups were granted a requested rule change, than any other group. More environmentalists received rule changes here, than was the case in the Tailoring Rule, as 14 groups were granted a rule change. Fewer state interests participated in this rulemaking than was the case in the Tailoring Rule and they also were less successful in receiving rule changes with only nine groups being granted a rule revision.

Table 14. Oil and Gas Rule Commenters that Received a Rule Change by Interest Group Type as Compared to all the Commenters from the same Group

| Interest Group | Commenters | Total |
|------------------|-------------|---------------|
| | that | Commenters by |
| | Received a | Organization |
| | Rule Change | Type |
| Trade/Business | 39 | 86 |
| Interests | | |
| State Government | 9 | 35 |
| Interests | | |
| Environmental | 14 | 56 |
| Interests | | |
| Other Interests | 0 | 0 |
| Total | 62 | 177 |

Public Comment Analysis

As was the case in the Tailoring Rule, business interests were the most influential group. The question is whether my conclusions relating to the importance of the content of comments are valid in this case as well. In this case, the bivariate analyses showed that all variables were correlated with the dependent variable rule change (see Appendix D) and no pair of independent variables was significantly correlated such that they measured the same effects (see Appendix D). The results of the multivariate regression are displayed in Table 15. When evaluating all of the aforementioned variables, only the number of recommendations variable is statistically significant at p-value <0.05. As was the case in the Tailoring Rule, the more recommendations an interest group included in their comment the higher probability of a rule change. In comparison, state interests were not a significant predictor, which is intuitive because few state interests were granted rule changes.

My finding that the technical content of the comments is not significant is also explainable and relates to the significance of the other arguments variable. Though not significant at p-value <0.05, other arguments were significant at p-value <0.10. Some scholars argue that significance at p-value <0.010 is high enough to suggest that the relationship is unlikely to have occurred by chance (Pollock 2012). Accepting this argument, the other arguments variable is negatively correlated with the dependent variable rule change. Therefore, the more "other arguments" included in a comment letter, which in this case were most commonly health and risk-based arguments, the less likely an interest group was to receive a rule change. At the same time, other policy arguments were also negatively correlated with technical content (-0.46) (See Appendix D), where higher other arguments typically resulted in a comment with less technical content. Therefore, the results here do not inherently discredit the notion that

comments with higher technical content are more likely to play a role in increasing the probability of a rule change. Simply put, those commenters that focus less on public health arguments may also include more technical content.⁵³ Therefore, the technical content of a comment may still be important in this case as well. Finally, the model captures about 54% of the variation in the data, which is significantly more than the 33% captured by the Tailoring Rule model.⁵⁴ This suggests that this model is more effective in explaining the overall variation in the dependent variable rule change than was the case for the Tailoring Rule model.

Table 15. Public Comment Regression Results for Oil and Gas Rule (statistically significant findings in bold)

| Variable | Coefficient | Probability of Change by Unit Change in X | P value |
|------------------|-------------|---|---------|
| DC Location | -0.94 | -61% | 0.219 |
| State Agency | 17.52 | NA | 0.993 |
| Environmental | 16.37 | NA | 0.993 |
| Interests | | | |
| Trade/Business | 16.84 | NA | 0.993 |
| Group | | | |
| Fiscal Arguments | -0.002 | -0.1% | 0.930 |
| Legal Arguments | -0.016 | -2% | 0.719 |
| Technical | 0.006 | 0.6% | 0.680 |
| Arguments | | | |
| Policy Arguments | -0.008 | -0.1% | 0.609 |
| Other Arguments | -0.046 | -5% | 0.057 |
| Number of | 0.25 | 28% | 0.00 |
| Recommendations | | | |
| Page Count | 0.02 | 2% | 0.248 |
| Intercept | -19.48 | NA | 0.991 |

_

⁵³ Furthermore, when running a second multivariate regression that removes the other argument variable and retains all others, the technical content variable again is statistically significant at p-value <0.05.

⁵⁴ Given the high p-value for the state agency, environmental interest, and business interest group type variables I do not include the change in probability associated with these variables in Table 26.

Summary Results

The results of this analysis offer some consistency with the Tailoring Rule. Though environmental interests did receive more rule changes, business interests still dominated by being involved in 28 of the 32 revisions granted by the EPA. In contrast, state government interests were both less involved in this rulemaking and less effective in receiving rule changes than was the case in the Tailoring Rule. One reason why this might be the case is the fact that state governments do not have a direct implementation role in this policy area, as they did in the Tailoring Rule. Regardless, these groups were less influential in this case.

In this case, the content of the comment and in particular the total recommendations included was again significantly correlated with the outcome rule change. In contrast, the technical content variable was not significant, but these arguments may still be important. This is because the other argument variable was a stronger predictor of those comments that did not receive a rule change. Because these arguments were negatively correlated with technical content, it may be that more technical content in a comment is still an important driver in explaining whether an interest group will be granted a rule change.

2012 CAFE Standards Rule

Finally, 163 interest groups submitted comments on the 2012 CAFE Standards Rule. Business interests maintained their position as the most frequent commenter group in this rulemaking with 100 commenters representing over 60% of the commenters. Environmental groups came in second and were followed closely by state agency commenters who were less frequent commenters in this rule than the previous two. Other interests again trailed these other group types.

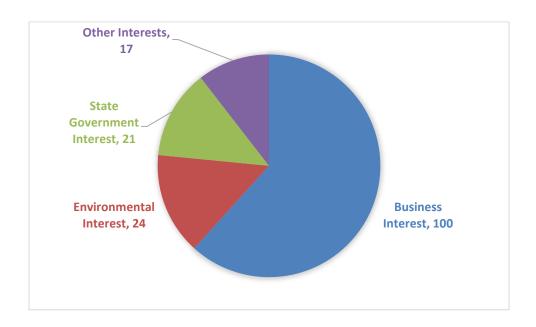


Figure 8. Interest Group Commenters by Type for 2012 CAFE Standards Rule

The EPA made a total of 29 changes in the 2012 CAFE Standards Rule in response to
these commenters (see Table 16). As was the case with the Oil and Gas Rule, the EPA made
numerous revisions to the 2012 CAFE Standards Rule but they were less significant in terms of
the overall impact on the final rule than was the case in the Tailoring Rule. This is because the
EPA did not revise the stringency of the rule, as the agency finalized the 4.5% annual increase in
fleet mpg through 2025 (reflecting the 54.5 mpg standard) as published in the proposal (EPA &
DOT, 2012).

Nevertheless, the EPA did make some important revisions to the rule that are important to highlight particularly regarding how manufacturers could achieve the standards and when certain small manufacturers would be required to meet the standards among others. For example, the EPA added a new off-cycle credit related to engine stop/start technology and removed market penetration thresholds for this and other off-cycle credits. The EPA also added a Compressed Natural Gas vehicle credit through 2021 among other credit revisions. Finally, the EPA extended

the compliance date for certain small manufacturers from 2016 to 2018, but allowed these manufacturers to participate earlier if they chose to do so (EPA & DOT, 2012). Given the quantity of similar revisions, the 2012 CAFE Standards Rule was subject to numerous substantive changes as was the case in the Oil and Gas Rule, but not significant changes as was the case in the Tailoring Rule.

Table 16. Summary of Rule Revisions in the Oil and Gas Rule and Groups that Requested each Specific Change

| Revision | Groups that Requested the Change by Type | | | Гуре |
|---|--|----------------------------|------------------|--------------------|
| | Business Interests | Environmental Interests | State government | Other Interests |
| | Interests | Interests | Interests | Interests |
| Revise AC credit to reduce high leak | | | 1 | |
| removal disincentive | | | | |
| Revise AC credit testing procedure | 1 | | | |
| Clarify the Hybrid high performance credit | 1 | | | |
| Revise truck hybrid performance requirement | 1 | | | |
| Revise credit equation and calculation | 3 | | | |
| methodology for hybrid credit | | | | |
| Revise minimum penetration threshold for certain electric vehicle hybrids | 5 | | | |
| Allow CNG vehicles to receive credit | 17 | | 1 | |
| Revise approved technology for engine | | | | 1 |
| stop/start off-cycle credit | | | | |
| Separate off-cycle credits for transmission | 1 | | | |
| related to trucks and cars | | | | |
| Adjust off-cycle credit methodology for | 3 | | | |
| exterior lighting | | | | |
| Document the technology allowed for off- | 2 | | | |
| cycle credit for heat recovery | | | | |
| Define off-cycle credit for solar panels and | 1 | | | |
| scaling credit methodology | | | | |
| Allow off-cycle credits to be accrued early | 14 | | | |
| Remove market penetration threshold for | 15 | | | |
| off-cycle credits | | | | |
| Do not require simulation for off-cycle | 2 | | | |
| credit testing process | 1 | | | |
| Clarify data submittal process for off cycle credit | 1 | | | |
| Revise baseline tire definition for existing | 5 | | | |
| fleet in fuel economy curve to match | 3 | | | |
| NHTSA and standardize results | | | | |
| Allow lead time for compliance statements | 1 | | | |
| with N ₂ O requirements | | | | |
| Allow small vehicle manufacturers to | 1 | | | |
| qualify for power train credit | | | | |
| Clarify how they conducted the non-health | 1 | 1 | | |

| benefit analysis | | | | |
|---|----|---|---|---|
| Clarify how they conducted the auto loan | 1 | 3 | | 1 |
| analysis | | | | |
| Include the equation to determine braking | 1 | | | |
| performance | | | | |
| Clarify which cars are eligible for credits | 1 | | | |
| Clarify definition of waste heat recovery | 1 | | | |
| Establish how a small manufacturer can | 1 | | | |
| show operational independence from a | | | | |
| larger manufacturer that may own that | | | | |
| manufacturer, so they can seek increased | | | | |
| lead-time | | | | |
| Allow small manufacturers to opt-in to | 1 | | | |
| program earlier to accrue credits | | | | |
| Fix typographical errors throughout the | 1 | | | |
| regulation | | | | |
| Clarify definition of active seat ventilation | 1 | | | |
| Establish what the LPG performance values | 1 | | | |
| are for credit generation purposes | | | | |
| Total | 84 | 4 | 2 | 2 |

Table 16 illustrates that business interests again were the most frequent interest to receive rule changes in response to their public comments. At least one business interest was involved in 27 of the 29 rule changes finalized by the EPA. This is consistent with the results in both the Tailoring and Oil and Gas Rule. Table 17 shows that 36 business interests were involved in the rule changes granted by the EPA. In comparison, four environmental groups were granted rule changes, while only two state government interests received rule changes. The poor performance of environmental groups is consistent with the other cases, while the poor performance of state interests is in line with my findings in the Oil and Gas Rule, but not the Tailoring Rule. Here again, the lack of state interest influence, may result from the fact that state interests have a limited role in implementing or regulating mobile source pollution. This may also explain why fewer state interests participated in this rule than was the case in the Tailoring Rule.

Table 17. 2012 CAFE Standard Rule Commenters that Received a Rule Change by Category and as a Percentage of all Interest Groups within the same Category

| Interest Group | Commenters that | Total Commenters |
|-----------------|-----------------|------------------|
| | Received a Rule | by Organization |
| | Change | Type |
| Trade/Business | 36 | 100 |
| Interests | | |
| State | 2 | 21 |
| Government | | |
| Interests | | |
| Environmental | 4 | 24 |
| Interests | | |
| Other Interests | 1 | 17 |
| Total | 43 | 163 |

Public Comment Analysis

We now turn to the results of the multivariate regression to evaluate the public comments. First, and as was the case in each of the previous rules, total recommendations was a significant predictor of the probability of receiving a rule change in the 2012 CAFE Standards Rule. Ultimately, this is the only variable to remain significant across each of the three rules, which suggests its importance as a predictor of rule changes. Simply put, those groups that include more recommendations in their comments are more likely to receive a rule change, while controlling for group type. In this analysis, business interests were also significantly correlated with receiving rule changes, which is inconsistent with both of the previous rules. In this context, business interests were more likely to receive a rule change purely based on organization type.

In addition, the state government interest variable was significant in the model suggesting that state interests are more likely to receive a rule change than other interests such as environmental groups. This is consistent with the results in the Tailoring Rule and lends support to the notion that state government interests can influence outcomes. However, only two state government interests received a rule change of the 21 that participated including CARB and the

Pennsylvania Department of Environmental Protection. The influence of CARB is in line with the perspectives of interviews, and makes sense as this agency worked closely with the EPA to produce the rule. However, 41 non-state interests received the remainder of the rule changes. In addition, the Pennsylvania Department of Environmental Protection requested rule change was also requested by 17 business groups (See Table 16). In line with these descriptive results, interviewees did not suggest that state interests were particularly influential at this stage in the process, which makes it difficult to explain why this variable is significant in the model. It is possible that there are some unaccounted for, random interactions in the model that causes state agencies to appear significant in the model. The subsequent model attempts to address these issues."

Table 18. Public Comment Regression Results for 2012 CAFE Standards Rule (statistically significant findings in bold)

| Variable | Coefficient | Probability of Change by Unit | P value |
|------------------|-------------|----------------------------------|---------|
| | | Change in X | |
| DC Location | 0.07 | 21% | 0.886 |
| State Agency | 2.81 | 1560% | 0.049 |
| Environmental | 1.72 | 459% | 0.164 |
| Interests | | | |
| Trade/Business | 2.78 | 1512% | 0.012 |
| Group | | | |
| Fiscal Arguments | 38.2 | NA | 0.994 |
| Legal Arguments | 31.2 | NA | 0.995 |
| Technical | 36.36 | NA | 0.994 |
| Arguments | | | |
| Policy Arguments | 34.10 | NA | 0.995 |
| Other Arguments | 39.15 | NA | 0.994 |
| Number of | 0.30 | 35% | 0.001 |
| Recommendations | | | |
| Page Count | 0.02 | 1% | 0.243 |
| Intercept | -40.7 | NA | 0.994 |

These random interactions in the model may be related to some of the bivariate analysis results, which were somewhat different than those of the previous two cases. Though six

variables were correlated with the dependent variable rule change (p-value <0.25, three of the remaining five variables were in some cases significantly uncorrelated (p-value >0.65) with the outcome including state government interests, fiscal arguments, and page count (See Appendix D).⁵⁵ Including these variables in the model may be influencing the results and so I conducted an additional stepwise regression that removes some of these variables to determine what impacts this has on the model.

Considering that state government interests were significant in Table 18, I retain this variable and then dropped the other two (fiscal arguments and page count). When you remove these two variables from the analysis, state government interests are no longer significant (Table 19). In this analysis, the business interest and number of recommendation variables remain significant, while legal and policy arguments also become significant. These results are also explainable, as a similar dynamic may be at play as was in the Oil and Gas Rule. In this case, the presence of these arguments was negatively correlated with the dependent variable rule change. As such, the fewer legal and policy arguments included in a comment the more likely the EPA will make a rule change in response to the comment.

These adjustments to the model do not elevate technical arguments to significance. In addition, this variable has a slightly negative correlation associated with the outcome rule change. This is a unique finding to this rule, and does not fit the above narrative. This outcome may be somewhat explainable, given the prevalence of commenters in this rule that submitted highly technical comments that were largely associated with one recommended rule change.

Bayer MaterialScience (2012), Denso International (2012), and Integrated Consultants Inc. (2012) all offered comments with nearly 100% technical content, but offered only one related

_

⁵⁵ As was the case in the previous rules, the pairwise correlation analysis did not reveal that any pair of independent variables were significantly correlated with each other.

recommendation, and did not receive a rule change. For example, Bayer MaterialScience (2012) called on the EPA to allow off cycle credit for the thermal benefits of window solar glazing, while Denso International (2012) argued that more efficient alternators should receive off cycle credits. ⁵⁶ Lending support to this argument, three commenters in the Oil and Gas Rule had highly technical comments with only one related recommendation and did not receive a rule change. ⁵⁷ In comparison, no commenters in the Tailoring Rule adopted this strategy, which may influence why technical arguments on their own were more significant in that rule because they were coupled with many recommendations. As a result, purely technical comments, with few recommendations may represent a high risk strategy for receiving a rule change.

Table 19. Modified Public Comment Regression Results for 2012 CAFE Standards Rule (statistically significant findings in bold)

| Variable | Coefficient | Probability of | P-value |
|-------------------------|-------------|----------------|---------|
| | | Change by Unit | |
| | | Change in X | |
| DC Location | 0.05 | 5% | 0.919 |
| State Government | 2.10 | 716% | 0.125 |
| Interest | | | |
| Environmental | 1.62 | 405% | 0.180 |
| Interests | | | |
| Trade/Business | 2.20 | 803% | 0.036 |
| Group | | | |
| Legal Arguments | -7.77 | -100% | 0.038 |
| Technical | 53 | -41% | 0.575 |
| Arguments | | | |
| Policy Arguments | -2.87 | -94% | 0.031 |
| Other Arguments | 2.72 | 1418% | 0.632 |
| Number of | .32 | 38% | 0.000 |
| Recommendations | | | |
| Intercept | -2.94 | NA | 0.014 |

⁵⁶ Off cycle credits refer to credits that are not associated with the combustion of energy in a vehicle.

⁵⁷ For the Oil and Gas Rule the commenters were Linear Motion Technology (2011), Quantum Resources (2011), and REM Technology (2011).

Summary Results

Here again business interests received the most rule changes of any of the interests that participated. As such, the expectation that business interests receive the most rule changes at this stage in the process appears accurate. In this context, business interests were significantly more likely to receive a rule change even when controlling for the effects of other variables, which was not the case in either of the previous rules. Despite these differences, environmental interests were not significantly correlated with the dependent variable rule change in this or the other two cases.

Turning to the content of the comment, the total number of recommendations variable was again significantly correlated with rule changes. As such, it is likely that this variable is important in explaining other significant rules at the EPA. Though technical arguments were again not significant as was the case in the Oil and Gas Rule, this does not suggest that the content of the comment does not matter. Rather, the negative correlation between legal and policy arguments and the dependent variable rule change would suggest that the absence of these arguments may increase the probability that an interest group will receive a rule change. If instead, interest groups included more technical arguments and recommendations this may further increase the probability that an interest group will receive a rule change.

Integrating and Explaining the Results

Overall, the findings from these three rules offer some interesting takeaways regarding interest group influence during the notice and comment stage. In this section I highlight some of my key findings and offer additional perspectives from the interviewees regarding what additional strategies may be useful in garnering rule changes from the EPA outside of the content of public comments. First, across each of the three rules business groups submitted the most

comments (462) and also received the most rule changes (67 of 77) in response to their comments. Moreover, at least in the case of the Tailoring Rule, business groups were granted a significant change, and thus had a noteworthy impact on the outcome.

In comparison, environmental groups rarely were granted rule changes. Moreover, the rule changes they received did not significantly impact the scope of each rule. Therefore, these groups certainly were less influential than business interests and this is largely consistent with the literature focused on this stage in the process which concludes that business interests are the most influential on outcomes (Golden, 1998; Kamieniecki, 2006; Yackee & Yackee 2006; Wagner et al., 2010).

Though business interests were the most frequent commenters to receive rule changes across each of the three rules, there was one notable difference in the Tailoring Rule. Here, business interests again received the most rule revisions, but state government interests were also quite successful in receiving rule changes. In fact, these groups were significantly correlated with the outcome rule change, while no other group was including business interests.

This finding is unique to this research, as much of the literature does not focus on the role of state government interests in influencing rulemaking outcomes. Rather the focus has been on the competition between environmental and business interests (Kamieniecki, 2006; Yackee & Yackee, 2006; Rinfret 2011a; Wagner et al., 2010). This focus may have been warranted in many of these research projects, because state government interests may not have been involved in these proceedings. The lack of involvement could also be related to the fact that most of the rulemakings evaluated were uncontroversial, and state interests decided not to participate. In this analysis of controversial rules at the EPA, state interests were influential at least in the case of the Tailoring Rule. This may also be explainable, given the significant role of state agencies in

implementing and enforcing the PSD and Title V programs. In line with this sentiment, these interests were most successful in receiving rule changes that relate to permitting in this rule. In comparison, there is less of a role for state agencies to support implementation in both the Oil and Gas Rule and the 2012 CAFE Standards Rule, which may explain why these entities were less likely to submit comments or receive rule changes.

Though state interests may have less influence in other rulemakings, interviewees across each rulemaking highlighted the importance of these groups. In the 2012 CAFE Standards Rule one environmental interviewee noted "the influence and expertise of California Air Resources Board also drove the process, and where the proposal ended up." Similarly, one interviewee in the Tailoring Rule argued "if states weigh in, they seem to have a lot of sway, they implement the rules, so they seem to have influence on the agency" and another in the Oil and Gas Rule commented "if a state gets involved that seems to get more clout." As a result, the role and influence of state government interests in driving regulatory outcomes at this stage in the process and likely others is important and should be considered in future work evaluating EPA rulemakings and possibly others as well.

Though business interests most frequently received rule changes across the rules, only in one case, the 2012 CAFE Standards Rule, were business interests significantly more likely than other groups to receive a rule change purely because they were a business interest. This research offers some key insights regarding why certain groups received rule changes, while others did not. The most significant contribution in this respect relates to evaluating the content of the public comments and in particular identifying the total number of recommendations included in their comment. This builds off the work of Baird and Fernandes (2014) and Yackee (2013; 2014) that suggest more technical comments are likely to result in rule changes. Yackee (2014; 2014)

offers anecdotal evidence from interviewees to make this point, while Baird and Fernandes argue that assessing the length of the public content is an effective barometer to gauge more technical comments. However, my research indicates that page count is not correlated with rule changes, rather documenting those interest groups, regardless of group type, that included more recommendations for rule revisions in their comments were more likely to receive a rule change across all three rules. This conclusion aligns with the perspectives of interviewees and their arguments at the pre-proposal stage where the agency is interested in feedback that offers them a direction to solve the problem.

I also conclude that analyzing the arguments included in the comments can help explain whether a group will receive a rule change in response to their comment. Here, my findings are less conclusive, but the general narrative suggests that those comments that are more technical in nature (i.e. include specific data-driven examples explaining why the agency should adopt certain regulatory requirements) are more likely to result in a rule change than a comment that is more heavily geared to fiscal or policy arguments.

The significance of technical arguments and related recommendations is also reflected by interviewees. As one environmental interviewee in the Oil and Gas Rule argued "individuals will comment generally, so it is dismissed by the agency and you see this over and over again. A commenter will say 'I don't want global warming' I don't know what the EPA is supposed to do with that...the more detailed the comments are, the more research that is put into them, the more responsive the agency is." An industry interviewee in the Oil and Gas Rule concurred arguing "they are looking for sound technical arguments at this point. If you do not have a sound technical or cost argument for why they should, or should not finalize a requirement then they are going to proceed with what they proposed." Thus, the conclusion that more technical

arguments and those comments with informed recommendations are likely to influence the EPA is consistent in the regression models and within the interviewee data. Therefore, research focused on explaining why certain interests receive rule changes while others do not, should consider the content of the comment and in particular how many recommendations interests make within their assessment.

Finally, though it is clear that environmental groups did not receive many rule changes at this stage in the process, they may have been influential via other means. Environmental interest interviewees highlighted the important role of mass comment campaigns to demonstrate support for each rule. For example, one environmental interest in the 2012 CAFE Standards Rule argued "it matters to have 5000 comments... in either support or opposition to the rule. This matters to the process, and is an important piece." Another environmental advocate from the Oil and Gas case agreed who argued it was critical to "make sure there are supportive comment letters to give the agency cover so to speak." As such, a variety of environmental interests tapped their membership base to flood the agency with supportive public comments across each of the three rules. Notably, the EPA stated in each rule's preamble that the agency received an overwhelming number of comments in favor of regulation (EPA, 2010; EPA, 2012c; EPA, 2012d). The EPA then used these comment letters as a means to justify finalizing each of the three rules (EPA, 2010; EPA, 2012c; EPA, 2012d). These actions would seem to lend some support to interviewees' claims that these comments are important even if they do not result in the agency changing the content of the proposed rule as a result.

Though the EPA made this claim, it is difficult to quantity the value of these comments and by extension environmental interests influence on the overall outcome at this stage of the process. It is possible the EPA would have withdrawn or significantly revised the scope and

impact of these rules if they did not have a majority of supportive public comment letters to justify continuing action. Confirming this claim is difficult given the inability to examine, or generate a counterfactual in the cases evaluated here. There is one example outside of this context that may prove instructive and that is the Federal Communication Commission's (FCC) actions in the net neutrality debate. In this instance, the FCC received over 3.7 million comments with 99% in support of maintaining net neutrality in opposition to the FCC's proposal to allow commercial providers to vary internet speeds (Hu, 2014). After it became clear that the vast majority of public comments were opposed to the rule, President Obama, publically called on the independent FCC to withdraw the rule (Hu, 2014). The FCC then reversed its position and maintained net neutrality and the Obama administration cited these comments as one justification for why the independent FCC took this action (The White House, 2016).

This example would suggest that these types of mass comment campaigns can have impacts on public agency decisions. Had this been an EPA rule, President Obama could have asked his political appointees to kill the rule, or could have stopped it at the OMB. As a result, the efforts of environmental groups to mobilize their members to submit supportive public comments could have influenced the outcome of these three rules even though they were granted few rule changes. Therefore, an attention to these types of mass comment campaigns may be important in clarifying influence at this stage of the process, and potentially the overall outcome of the rule.

Summary Contributions

It is clear that interest groups continue to have a strong presence during the notice and comment stage, largely through the submittal of public comments. This research makes two unique contributions to the literature worth highlighting again here. Though this research

confirms the broader literatures assertion that business interests are the most influential at this stage, it also reveals that state government interests, in at least some contexts can also be significant players in the rulemaking process. The field has not highlighted this role in the literature, which could result from any number of factors including the focus on less significant more "normal" rules, where states may not be involved. Regardless, future work should evaluate the role of these interests in controversial EPA rulemakings.

This work also contributes to the literature as it relates to explaining why certain business or other interests receive a rule change as opposed to others. Most notably, the introduction of the total recommendations variable to explain which interest groups are likely to receive a rule change proved a significant predictor variable across all three rules. As such, future work should track the recommendations interest groups make when predicting whether they will receive a rule change. Though the technical content of a comment was not a significant predictor of rule changes across all the rules, the evidence would suggest that an attention to the arguments made in each comment letter can also help explain whether a group's comment will be more likely to receive a rule change. Simply put, the EPA may be more interested in technically-based recommendations and so those groups that draft comment letters from this perspective may get a more receptive ear from the agency.

Chapter 6

Conclusion: So Did Someone Win?

Environmental and business groups were present and influential during the pre-proposal

and notice and comment stage of each rulemaking. The goal of this chapter is to determine the

overall scope of this influence, whether this varies by stage, and whether certain groups had

more influence than others when considering the entire process. This chapter addresses these

questions, while also placing these findings into the broader context of the interest group

literature relating to the EPA and regulatory policy more generally. I conclude by outlining my

Regulatory Spheres of Influence Framework for clarifying interest group influence on rules at

the EPA. My expectation is that this framework may be fruitfully applied in other controversial

rulemaking contexts across agencies.

Differences in Influence across the Pre-proposal and Notice and Comment Stage

Chapters 4 and 5 illustrate that environmentalists may have been most influential during

the pre-proposal stage of the process, while business interests dominated the notice and comment

stage. To compare influence across the rulemaking process, this chapter analyzes the perceptions

of those most involved in the process, the interviewees, and supplements these perceptions with

available public documents. Ultimately, I argue that interest groups are more likely to exert

influence earlier in the process, but participation across the stages is important because it is

possible to have a significant impact at any stage. I then turn to discuss whether certain groups

drove the process as a result of their participation.

120

Value of Pre-proposal Stage Involvement

Interviewees consistently argued that they were more likely to influence the rule during the pre-proposal stage than at any other time in the rulemaking process. In fact, 74% of interviewees believed earlier participation was better than participating later in the process, while none asserted that involvement during the notice and comment stage was more important than pre-proposal involvement (Table 20).

Table 20. Interviewee Perspectives on the Most Important Stage to Participate (n=69)

| Rule | Participation in | Participation in | Both are | Did Not Select | Did Not |
|-------------|------------------|------------------|----------|----------------|---------|
| | Pre-rule stage | Notice and | Equal | A Preference | Know |
| | | Comment Stage | | | |
| Tailoring | 14 | 0 | 1 | 1 | 1 |
| Rule | | | | | |
| Oil and Gas | 17 | 0 | 0 | 3 | 3 |
| Rule | | | | | |
| CAFE | 20 | 0 | 0 | 9 | 0 |
| Standards | | | | | |
| Rule | | | | | |
| Total | 51 (74%) | 0 | 1 (1%) | 13 (19%) | 4 (6%) |

Interviewees offered some perspective for why they believed that earlier involvement was important. For example, one environmental interviewee from the Tailoring Rule argued "there is a more limited universe of changes that can happen after the proposal. After the final rule, you can ask the agency to reconsider or take legal action, and potential influence is even more circumscribed. So, you have concentrically smaller circles of influence just by the way the process is designed." Industry interviewees from this case agreed as one argued "successful advocacy needs to start before the rule is proposed, for two reasons, human nature once you settle on a position it is hard to argue off of it, if you wait and say oh wait a minute you missed this, this, and this, it is harder to get those changed. Second, you end up with judicial deadlines so you have only got 9 or 12 months to finalize a rule and they do not have time to review new approaches."

This perspective was also consistent in the Oil and Gas Rule and the 2012 CAFE Standards Rule. For example, one environmental interviewee in the Oil and Gas Rule argued "we cannot afford not to be there, it used to be you would look for, or wait for a draft to come out and you would comment on that, now you have to get in there earlier...you cannot just show up at the end." An industry interviewee related to this rule concurred arguing "we have greater opportunity to influence a rule before it is proposed than we do after. This is because once it has been officially proposed there is less open discussion of the rule."

Interviewees in the 2012 CAFE Standard Rule might be the bluntest. Here, an environmental interviewee asserted "once it is proposed the process is over, so the goal is to influence that proposed rule" and an industry interviewee concluded "if you wait until the public comment period you have missed your best opportunity to get something into the rule. You are protected, as these discussions do not go on the record. If you wait until the public comment period and you get the agency to make the change, the agency can be subject to legal challenges, so we try to focus our efforts on the pre-proposal stage."

As such, these perspectives illustrate why interviewees believe earlier involvement is critical in influencing the agency. These conclusions largely stemmed from the belief that the agency is more open to interest group ideas, concepts, and perspectives regarding the direction a rule should take at this stage. Once the agency has written a draft rule, interviewees argued that the agency was less interested in making changes and so stakeholders have attempted to influence rule writers earlier in the process.

Clearly, interviewees believe that participation earlier in the process is more important than later involvement and the limited archival data available aligns with this perspective. First, in the Tailoring Rule, both business and environmental interests may have been most influential

on the outcome through their activities via the ANPRM process. Here, environmental interests had called for the EPA to utilize a phased threshold-based approach to implement the Tailoring Rule. In comparison, business interests highlighted the importance of establishing the thresholds at the appropriate level to avoid relatively small GHG emitters. The EPA ultimately proposed a rule that addressed these comments and in some cases the agency referenced ANPRM comment letters as justifications. Therefore, it is likely that these interests were influential on the proposed rule. Regardless, the Tailoring Rule may be somewhat of an anomaly. Here, the EPA moved so quickly to produce the rule, which limited the agency's ability to include more stakeholder engagement in the drafting process outside of the ANPRM structure. Moreover, interest group interviewees argued that they are more involved during the drafting of proposed rules in other contexts. Even so, interest groups did have some impact on the rule.

In the other two cases interest group influence was more pronounced at this stage. In the Oil and Gas Rule, it is clear that environmental interests influenced the outcome. First, absent the litigation from environmental interests that drove this rule to the agenda, the EPA may not have updated the standards. Certainly, the EPA would not have had to adopt them on such a stringent timeline as outlined in the settlement agreement. Furthermore, environmental interests advocated for certain emission control technology such as replacing wet seals with dry seals on centrifugal compressors that were included in the proposed rule. Thus, in this case it appears that environmental interests were more influential on the outcome than business interests.

Finally, it is clear that environmental and business interests were heavily involved and influential on the content of the 2012 CAFE Standards Rule. This is most prevalent in the negotiation process between interest groups and the agency. Agency personnel clarified that it was the goal of the administration to garner support from at least some vehicle manufacturers,

prior to publishing the rule. As such, the agency made changes to the draft rule with input from these entities. Manufacturers were not the only groups negotiating with the EPA, environmental interests were also present and fought for a higher standard. Once the EPA finalized the draft rule many business interests supported the rule and environmentalists got a standard that was closer to their preferred 60 mpg threshold. In this case, both environmental and business interests had a role in influencing the content of the rule.

As a result, interest groups likely did influence the outcome of each rule at this stage in the process, which supports the perception of interviewees that earlier involvement is valuable in influencing a rule's content. This earlier involvement may also result in a higher likelihood of receiving a rule change later in the process. Of those interviewees involved earlier in the process, 51% were granted a rule change in the notice and comment stage, while only 28% of those that participated only during the notice and comment stage did. In the Oil and Gas Rule a high of 69% (in the Oil and Gas Rule) of interviewees were also granted a rule change in the notice and comment stage after participating during the pre-proposal stage (Table 21). There were significantly fewer interviewees in the Tailoring Rule or 2012 CAFE Standards Rules that were not participants in the pre-proposal stage of the process, making comparisons here more challenging. Nevertheless, in both of these cases, over 40% of those interviewees that were participants earlier in the process received a rule change during the notice and comment stage as compared to less than 25% of those interviewees that were not involved.

Table 21. Comparison of Interviewee Participation during the Pre-proposal Stage and those Interviewees Granted Rule Changes during the Notice and Comment Stage

| Rule | Interviewees | Interviewees |
|-------------|---------------|---------------|
| | with Pre- | without Pre- |
| | proposal | proposal |
| | Participation | Participation |
| Tailoring | 46% (6/13) | 0% (0/4) |
| Rule | | |
| Oil and Gas | 69% (9/13) | 44% (4/10) |
| Rule | | |
| CAFE | 40% (10/25) | 25% (1/4) |
| Standards | | |
| Rule | | |
| Total | 51% (26/51) | 28% (5/18) |

There may be a variety of factors that might explain why those groups that were involved earlier in the process were also granted rule changes during the notice and comment stage and I discuss some of these factors in turn. Nevertheless, this finding lends support to the perception of interviewees that earlier involvement is helpful for influencing the agency, perhaps during both the pre-proposal and notice and comment stage.

Value of Notice and Comment Stage Involvement

Despite the widespread agreement among stakeholders regarding the importance of preproposal participation, the interviewees also offered some perspectives regarding the importance
of submitting comments to influence EPA actions. Recall, 13 interviewees did not state a
preference that either the pre-proposal or notice and comment stage was more important for
influencing the agency, while one suggested that both were important (See Table 20). Even those
interests that suggested participation in the pre-proposal stage was most important did not say
that participation during the notice and comment stage was not necessary. In fact, all of the
interviewees in this study also submitted public comments regardless of their assertion that

earlier involvement was critical for influencing outcomes. This suggests that the interviewees also believe they received some value for participating at this stage.

In this context, interviewees offered their perspective regarding the value of the notice and comment stage and some are summarized here. In addition, to the importance of mass comment campaigns noted earlier, one environmental advocate from the 2012 CAFE Standards Rule highlighted "in some cases the final rule will look considerably different than the proposed rule. It has been less common to see this the past 6-8 years. But, you can still point to some cases at the EPA where this has happened." An industry interviewee from the Oil and Gas Rule concurred arguing "outsiders do not always see the significance of the public comment stage and the changes at this stage can have a significant impact on industry." This was certainly the case in terms of the Tailoring Rule, which lends support to these beliefs.

Even if the agency does not make such significant changes as occurred in the Tailoring Rule, industry interviewees in particular, noted the value of focusing on the details of a rulemaking at this stage. One industry-related interviewee from the 2012 CAFE Standard Rule suggested "we use the public comment period to work through the rough spots that have not already been negotiated, so we are still working through them, the whole objective is to get through the process." Another interviewee from this perspective agreed suggesting "there were a lot of weeds in the proposed rule and we dug into them." The outcome of both the Oil and Gas Rule along with the 2012 CAFE Standards Rule, support these claims as the agency made numerous revisions to these rules that were focused on the details of compliance.

Finally, interviewees highlighted the importance of the public comment period, to show standing for litigation. As one environmental interviewee in the Oil and Gas case noted "the comment process is important from a litigation perspective." More directly, litigation might be

more successful if the interest group can demonstrate that the agency could have considered something included in their public comments, but chose not to do so. This action could be considered arbitrary or capricious by a reviewing court (Kerwin & Furlong 2011). The Tailoring Rule also demonstrates the importance of this participation as the Utility Air Regulatory Group, submitted a public comment and was the lead plaintiff in *Utility Air Regulatory Group et al. v. EPA et al.*, where part of the rule was overturned.

As a result, though interest groups argued that they have the most influence during the pre-proposal stage, participation during the notice and comment stage was still an important avenue for influence as illustrated across each of the three rules. In some cases, the agency will make significant changes to the proposal as was the case in the Tailoring Rule, or make substantive revisions to the details of the regulation which can also be important in shaping the rules content. If the agency does not take an interest group's preferred action at this stage, the group can then proceed to litigate the case.

Modeling Influence across the Stages of the Process

As a result, interest groups were influential at all stages of the rulemaking process, and the contribution of this dissertation is clarifying the scope of influence across the stages. Given my results, I argue that a concentric circles analogy employed by an interviewee in this study is a valuable tool to understand interest group influence during the rulemaking process (See Figure 9). The premise of this concept is that stakeholders can wield more influence over the outcome of an agency rulemaking the earlier they get involved in the process.

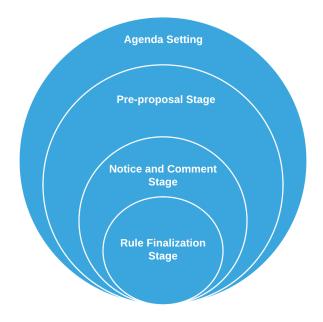


Figure 9. Scope of Interest Group Influence on Regulatory Outcomes

Though most rulemaking literature discusses the three broad stages of the rulemaking process, pre-proposal, notice and comment, and rule finalization stage, Chapter 4 demonstrates that interest group agenda setting activities were important for explaining influence. The Oil and Gas Rule is a particularly good example, where environmental groups sued the EPA and that litigation resulted in a court mandate for the agency to update the standards (the goal of environmentalists). By placing the rule on the agenda the environmental interests already impacted the outcome. The question then became how different the standards would be.

Agenda setting also played a role in the Tailoring Rule and 2012 CAFE Standards cases. The common starting point regarding the EPA's activities to regulate carbon dioxide under the Clean Air Act impacted both rules. Ultimately, the EPA's choice to finalize the endangerment finding, and 2010 CAFE Standards Rule set the stage for these two rules. Therefore, tracing those interests that impacted these two regulations and even earlier actions such as the *Mass et al. v. EPA et al.* decision in 2007 would further clarify the scope of influence for these two rules.

In fact, interviewees attested to the importance of these activities in shaping the context and outcome for both rules. As a result, these activities were important for explaining regulatory outcomes and so I argue that future work should include a detailed analysis of these activities.

This assertion is well founded in the policymaking literature, particularly when evaluating influence on policy outcomes (Cobb & Elder, 1972; Stone, 1988; Cobb and Ross, 1997; Kingdon 2005; Pralle 2006). This is not to suggest that the rulemaking literature neglects agenda setting (Golden 2003; Kamieniecki 2006; Rinfret & Furlong, 2011). Rather, much of the pre-proposal research often briefly discusses these activities, and then focuses on interest group actions via their informal actions during the drafting of a rule (Rinfret 2011a; 2011b; 2011c; Yackee 2013). When evaluating interest group influence on outcomes, this dissertation suggests that a more detailed analysis of these groups' strategies during agenda setting is valuable for generating a fuller picture of interest group influence on outcomes.

Though attention to agenda setting is important, this dissertation and the work of other scholars (Kamieniecki, 2006; Rinfret 2011a; 2011b; 2011c; Yackee 2012) illustrates that interest groups can have a significant impact on the content of rules during the drafting process.

Moreover, interviewees argued that their use of the informal interactions strategy was the most valuable for exerting influence on outcomes. Thus, evaluating interest group activities during the drafting process is essential and the 2012 CAFE Standards Rule is a particularly good example. In this context, the outcome was driven by the negotiation processes the agency had with business and environmental interests regarding the stringency of the proposed rule. Though there were no similar negotiation processes in either the Tailoring Rule or the Oil and Gas Rule, interviewees argued that their involvement was important in shaping those rules as well. In the Tailoring Rule this influence was more formalized via the ANPRM process, while the informal

interactions between agency personnel and environmentalist influenced the emission control technologies required in the Oil and Gas Rule.

After the pre-proposal stage in the process, the opportunity and scope of potential influence declined in two of the three cases under review here. Though interest groups did influence the outcome of the Oil and Gas and 2012 CAFE Standards rules, the changes impacted the details of the rule largely in terms of compliance pathways. The Tailoring Rule is a notable exception. In this context, the agency made significant revisions to the proposed rule. As a result, influence at this stage can be important in both shaping the details and potentially the overall scope of the rule. Nevertheless, it is more likely that influence will be more limited at this stage of the process, as noted by interviewees and the broader literature (West, 2009; Kerwin & Furlong, 2011; Shapiro, 2013).

Finally, interest groups can wield influence over outcomes during the rule finalization stage through litigation activities. If an interest group is granted a petition for reconsideration or wins a lawsuit in court, the group can dramatically change the outcome. In two of the three cases (Oil and Gas Rule and 2012 CAFE Standards Rule), interest groups were not very influential at this stage because the courts accepted the authority of the EPA to establish these standards. The Tailoring Rule is again the exception, as the Supreme Court overturned the rule, in response to interest group complaints. This outcome is atypical of EPA rulemakings and rules across bureaucracy more generally (Kerwin & Furlong, 2011; Klyza and Sousa 2013). As a result, it is more likely that interest groups will wield more influence over agency actions earlier in the process. Having said that, this case highlights the importance of tracking the rule through the litigation process to determine which groups were most influential on not just the content but the outcome of the rule.

Thus, the concentric circles of influence concept is useful for understanding when interest groups broadly are *most likely* to impact the regulatory process. We should expect that interest groups are most influential earlier in the process. Nevertheless, this concept suggests that interest groups can be influential across the rulemaking process. Thus attention to each stage in the rulemaking process is important for understanding the role of interest groups. This is critical, because it is possible that interest group influence at later stages in the process may actually reverse the shape of the framework as exemplified by the Tailoring Rule example. Regardless, future work focused on explaining interest group influence on regulatory outcomes should evaluate all stages of the rulemaking process with the expectation that interest groups will be more influential earlier in the process.

Access to the Circles of Influence

To be clear, the goal of this dissertation was to analyze the impact of interest groups across the stages of the process and determine whether some groups were more influential than others. In doing so, it became apparent that interest groups' ability to exert influence in each case was impacted by some external factors including decisions from the courts, the priorities of the president, and the design of the EPA rulemaking process. In addition, the individual characteristics of an interest group can also impact whether that group will be more likely to influence the EPA. This section describes the role of these factors and concludes with a more comprehensive framework to evaluate interest group influence in the rulemaking process.

Role of the Courts

As noted the courts can play a role in allowing interest groups access to the process via mandating agency activity (Golden, 2003; O'Leary, 2013; Klyza & Sousa, 2013). Because the EPA has many statutory obligations and limited resources, the courts can serve as an important

gatekeeper. This was clear in the case of the Oil and Gas Rule, where environmental interest litigation served as the foundation for the rule. The courts also played a role in the other two cases, most notably through the *Mass et al. v. EPA et al.* decision that affirmed the EPA's authority to regulate GHGs. Thus, the courts can play a role in granting interest groups access to the rulemaking process.

Once the rulemaking process is complete, the courts again can play a role, this time extending the playing field for influence. The courts can take up cases from interest groups claiming that rules were arbitrary and capricious or outside the scope of the agency's statutory authority (Kerwin & Furlong, 2011; O'Leary, 2013). At this stage, interest group influence may be more limited, by historical judicial deference. Simply put, agency personnel are committed to designing rules that will survive judicial review and the arbitrary and capricious test (Nie 2009; Kerwin & Furlong 2011). The courts then often defer to agency expertise, if the rule can be logically derived from the evidence presented.

The courts will be more likely to take up interest group cases, when it relates to questions of statutory authority. This was the case in the Tailoring Rule, where the court overruled the agency decision because it ran against the plain language of the Clean Air Act. Though the courts may apply stricter scrutiny to these cases, they are most likely to overturn agency decisions in first generation rulemakings (Kerwin & Furlong, 2011). Once the courts have established the EPA's authority to regulate certain pollutants, such as GHGs, this becomes legal precedent (Rosenbaum, 2008). The courts are unlikely to overturn legal precedent, and so the courts may not take up future interest group litigation addressing the same question of statutory authority or to rule in an interest group's favor in such a case (Rosenbaum, 2008). Nevertheless,

examining the role of the courts and the legal context surrounding a rule is important for clarifying which interest groups might influence a rule.

Presidential Priorities

In addition to the role of the courts, the president can influence interest group access to the rulemaking process and those groups that might be more influential on a rule's content. There is considerable research clarifying the levers of presidential influence on administrative activity which include appointment power, priority setting, budgeting, and regulatory review among others (Nathan, 1983; Waterman, 1989; Wood & Waterman, 1991; Freedman, 1995; Lewis, 2008; Klyza and Sousa, 2013; Vig, 2013). In these climate change rules, the president's power to establish priorities may have impacted interest group's ability to influence the agency.

As noted earlier, President Obama made climate change policy a priority of his administration, thereby opening the pathway for interest groups to influence the content of the rules. Interviewees also highlighted the importance of the priorities of the administration for shaping which interest groups were influential or which perspective carried the day. For instance, one environmental interviewee from the CAFE Standards Rule argued "it is not just the substance of arguments but also who you are, who is the messenger matters depending on the political climate." An environmental interest in the Oil and Gas Rule agreed arguing "let's be honest the agency is guided by political directive, if you are making an argument that aligns with that directive you get traction and if not you are not going to get a positive response." This was particularly important in the Oil and Gas Rule as environmental interviewees noted that "a political directive went out…and they were not going to push hard on natural gas."

Industry interviewees also noted the role of presidential priorities. One industry interviewee in the 2012 CAFE Standards Rule argued "political considerations can and do have

an impact in these processes, or trump sound science and data." Another industry interviewee from this case was blunter noting "the White House was calling the shots." Similar sentiments were apparent in the Tailoring Rule, but in more muted terms where one industry interviewee argued "it is more to do with the interests being aligned, then anyone maliciously trying to cater to one side or the other." An industry advocate from the Oil and Gas Rule concurred noting "the last administration was more oil and gas business friendly than this one. But, that is what makes our country so great the pendulum shifts and it is doing so now."

Thus, assessing which interest groups may be most impactful on a rule, may be in part influenced by the political goals and philosophy of the administration. This is a function of the fact that agency personnel may be predisposed to support the positions of environmental or business interests depending on the priorities of the president. This is because if the rule does not align with presidential priorities it may be delayed or withdrawn (Vig & Kraft 2013). As such, attention to the position of the president in a regulatory policy area may be important in contextualizing interest group activities and influence.

Accounting for the EPA Process

Though presidential priorities can impact the success of certain interest groups in influencing the outcome, the rulemaking process employed by the EPA also impacts the equation. Ultimately, few interviewees explicitly argued that certain groups were more influential on outcomes than others as a result of interest group favoritism or presidential priorities. Rather, they frequently suggested that the EPA was relatively balanced in its stakeholder input processes. For example, one industry advocate from the Oil and Gas Rule argued "the agency does a fair job balancing the environmental objective and addressing the concerns of the regulated industry and working with industry to achieve the same objective in a

cost-effective manner." An interviewee from the industry perspective in the 2012 CAFE Standard Rule made a similar claim concluding "the EPA is fair and tries to deal with everyone including states, nongovernmental organizations, and industry...it is a balanced approach and they do not and should not favor some views over others." And this perspective carried to the Tailoring Rule where an industry representative asserted "they do a good job of finding middle ground, where we cut back on emissions, but they are not going to go so over board to put us out of business."

Environmental groups across the three rules largely agreed with this industry perspective. For example, one interviewee from the 2012 CAFE Standard Rule commented "it was a pretty open and accessible process. No groups had undue influence and generally it went as the process should." An environmentalist in the Oil and Gas Rule concurred saying "this agency put a lot into the public [engagement] process and that public process is important." Finally, one environmental interviewee in the Tailoring Rule noted the EPA is always "wrestling with these regulatory issues and how best to achieve their mission, the agency will listen and make changes that helps it achieve the mission."

Some interviewees went on to argue that this balancing act was essential. For example, one industry interviewee from the Oil and Gas Rule concluded "there are comments from environmental groups for more strict regulations or to regulate more, so they have to balance that with what industry says." An industry advocate in the Oil and Gas Rule illustrated the problems that the EPA might face if they do not take this approach asserting "if they are perceived as cooperating with industry they are criticized by certain groups, saying they are in the pocket of industry. Conversely, they get criticized if they have closed door meetings with Sierra Club or Wild Earth Guardians, without including industry." These comments were not confined to

industry either as an environmental interest from the 2012 CAFE Standards Rule agreed arguing "we do appreciate the EPA, they are crushed on both sides and they take that criticism, there are a number of people in the EPA that do the best they can."

As such, interest groups argued that the EPA played an important role in bringing in a variety of stakeholder perspectives into their decision making processes. These interviewee perspectives are also consistent with literature focused on examining the rule making process, of the EPA. Recall, the EPA is committed to conducting reg neg lite (Lubbers 2008) or shuttle diplomacy (Rinfret, 2011a). These regulatory structures are designed to incorporate information from business and environmental groups to produce more effective rules. This approach is also logical given EPA rules are frequently litigated (O'Leary, 2013) and so the expectation is that the more the EPA gets stakeholder buy-in, the less litigation they may have to deal with (Fiorino 2004; 2006). Even in those cases where the EPA is sued, being able to demonstrate that the agency actively engaged and attempted to improve the rule through stakeholder engagement may illustrate that the rule was neither arbitrary nor capricious. Therefore, the EPA rulemaking process promotes the participation of a wide variety of stakeholders and this provides interest groups of all types an opportunity to influence the rule regardless of the preferences of the president or the action of the courts

Accounting for Interest Group Characteristics

Finally, interviewees highlighted that certain groups can wield more influence over outcomes than others based upon the group's unique characteristics. The key characteristic highlighted by interviewees' centers around expertise in a particular policy area. For example, one industry interviewee in the Tailoring Rule argued "there are so many fish in the pond, but depending how right down your alley a rulemaking is, will impact the level of attentiveness you

expect from the agency." This sentiment was also noted in the Oil and Gas Rule, where an industry interviewee argued that "the American Petroleum Institute [API] was more influential, because the regulation had more impact on them and their constituents." An environmentalist from the 2012 CAFE Standards Rule concurred arguing "obviously the manufacturers have access, but this makes sense the agency is regulating them, they should consult them." Another interviewee from the industry perspective elaborated on this point arguing that the influence of any given interest is "a function of how much expertise you bring...for example General Motors has some of the top experts on mobile air conditioning in the world, and so they have a lot of credibility in that area. If you have a small company with a couple guys that do all the work on a range of issues, you just don't have that credibility. You won't carry the same weight."

Business interests were not the only groups that were considered to have expertise in each policy area. Large environmental groups were also noted as having the technical expertise to influence rulemakings. For example, one environmental interest in the Oil and Gas Rule asserted "our organization, relative to other players is somewhere above the middle, because of our mix of membership and technical expertise. It is hard to compare to Environmental Defense Fund, Clean Air Task Force, and Sierra Club they are a particular kind of beast and on the technical side can be very influential." Another environmentalist in the 2012 CAFE Standard Rule noted "the National Resource Defense Council (NRDC) and the Union of Concerned Scientists (UCS) do the deep dive and technical stuff and are very effective with the agencies." As such, interviewees generally argued that larger trade associations and environmental groups were more likely to exert influence on these rulemakings than other groups, because they had the in-house expertise to provide critical data to the EPA.

The results of the public comment analysis clearly demonstrate the influence of these larger organizations on both sides of the debate. For example, the API requested 15 of the 32 rule changes granted in the Oil and Gas Rule, the Alliance of Automobile Manufacturers requested nine of the 29 rule changes granted in the 2012 CAFE Standards Rule, and the Texas Industry Project (a coalition of 70 businesses including Fortune 100 companies) requested four of the 15 rule changes in the Tailoring Rule. The role of large environmental groups was also reflected in the results of the notice and comment stage though to a lesser extent. In this case, the EDF and the UCS both were granted a rule change in the 2012 CAFE Standards Rule.

Interviewees went on to suggest that these larger groups had more influence in part because they have access to significant resources. This access allowed them to build their expertise across the different sectors of the economy. One industry interviewee in the Oil and Gas Rule noted that "several trade associations are more influential than others, because they have deeper pockets" and are able to use those resources to review and influence regulation.

Another industry interviewee in the Oil and Gas Rule added that larger trade associations "wield fairly large influence...because they are willing to sue the EPA." As such, interviewees noted that those organizations with greater access to resources are likely to have more technical staff to review rules and discuss changes with agency personnel. These conclusions are also consistent with the literature that illustrates those interests with more resources will participate more frequently (Furlong 2007; Rinfret & Furlong, 2012), but neither side is likely to have a material advantage (Baumgarter et al., 2009). This is because both sides have access to resources and can build expertise.

One way smaller groups can address possible resource imbalances, is through joining coalitions to pool resources (Hojnacki, 1997; Baumgarter et al., 2009). This was common for

environmentalist in the 2012 CAFE Standards Rule argued "our Go 60 Campaign had consumer, environmental, and public health groups that were tailored to different constituencies and filled different needs." Another interviewee added that we "had a core group for the technical piece, to brainstorm policy ideas, get advice and produce white papers" on certain topics. One interviewee succinctly captured the value of this approach suggesting "each group has different specialties, structures, skills, outreach, and analysis capabilities. So, the benefit of working in coalition is to leverage that expertise." Coalition building was also prominent among environmental interests in the Oil and Gas Rule as one noted "we were working with several other large groups, sort of a collaborative process on our side so that the major groups were all engaged together." This coalition building also had positive results in this rule, as the Sierra Club along with 12 other environmental organizations were granted two rule changes in the Oil and Gas Rule in response to their coalition comment.

Industry interviewees also noted the importance of forming coalitions. For example, one industry interviewee in the 2012 CAFE Standard Rule suggested "there is an unwritten rule that you talk about details with each other, but not when you are at such high political levels as was the case here. You had auto companies not knowing what the others were saying." This made it more difficult for the auto companies to show a unified front, which may have impacted their ability to influence the agency. Industry interviewees also highlighted the importance of participating in coalitions, particularly for those smaller firms. One interviewee from the Oil and Gas Rule mentioned "we are a very lean organization and we rely on trade groups to help us out." An interviewee in the Tailoring Rule made a similar claim suggesting "we have two staff for everything...so we tend to be involved in these kinds of things through coalitions." Therefore

groups from both sides were building coalitions as a means to pool resources and more effectively convey their message to the EPA.

Finally, some interviewees suggested that sometimes just having the right person, with positive personal relationships with regulators was sufficient to influence the agency. For example, one environmental interest from the Oil and Gas Rule noted "consistent involvement with regulatory agency staff, so they get to know you and trust what you have to say...definitely helps." One interviewee from a fuel provider perspective in the 2012 CAFE Standards Rule agreed arguing that it is critical "to hire the right consultant to lobby staff." The same sentiment was voiced by one environmental advocate in the Tailoring Rule who said "if you are starting from a new perspective or trying to advocate in an area you do not often participate in, it is more difficult to get the agency to make changes." It is difficult to quantify the potential influence of individuals, based upon the results of this research. However, it is clear that building trust between regulated interests and regulators can result in more positive working relationships (Scheberle 2004; Fiorino 2006; Rinfret & Pautz, 2014) that might correlate with increased influence. Moreover, Berry and Wilcox (2008) have concluded that these personal relationships are important, at least in the congressional context, which may lend support to the interviewee perspectives here.

In summary, generally larger business and environmental organizations with more members and resources to commit to rulemakings are perceived to have the most influence and this was certainly the case during the notice and comment stage. Interviewees noted these groups often have more resources at their disposal to build and then contribute their expertise to a regulatory process. Interviewees argued that it was through applying this expertise that a group can influence the agency. Though it was easier for larger groups with more in-house expertise to

exert influence, interviewees argued that groups with fewer resources and associated expertise can also participate in coalitions to increase the likelihood of impacting the regulatory outcome. Coalitions did have some success in influencing outcomes on both the environmental and business side across the three rules, which would support these beliefs. Finally, interpersonal relationships between agency personnel and specific individuals from interest groups may also impact whether a certain group will be more influential on outcomes. Though I could not confirm these claims, they are consistent with other scholarship (Berry & Wilcox 2008). Therefore, these interest group characteristics can also influence whether a certain group will be more likely to influence the agency provided they get access.

Establishing a Model of Interest Group Influence on Rulemaking

As a result, analyzing the activities of interest groups throughout the rulemaking process is important for gauging influence, but these actions do not occur in a vacuum so it is also important to evaluate other factors that can affect these groups' success. First, the courts were important in these climate cases for allowing interest group's to place rules on the agenda of the EPA. At the same time, President Obama's commitment to climate policy likely also impacted the types of groups that had access to agency personnel during the pre-proposal stage and their broader influence overall. Yet, the design of the EPA rulemaking process also influences the groups that are present. The efforts of the EPA to include a wide variety of stakeholder voices suggest that the EPA may be open to more perspectives than just those dictated by the president. Finally, certain interest groups and their unique characteristics might also explain whether a specific group is likely to influence the agency at any stage. Therefore, more effectively conceptualizing the role of interest groups on regulatory outcomes must account for these other factors as outlined in my Regulatory Spheres of Influence Framework (Figure 10).

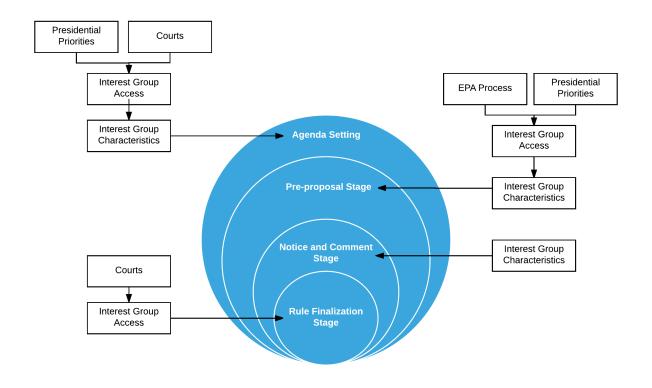


Figure 10. The Regulatory Spheres of Influence Framework *Is One Side Likely to Win?*

Figure 10 demonstrates that there are a variety of factors that impact whether certain interest groups will have influence over regulatory outcomes at the EPA. Thus, the rulemaking process represents a challenging road for a set of interests to dominate the entire process and this is born out in my results. In none of three cases did a clear "winner" either environmental or business appear. In two of the three rules (Oil and Gas and 2012 CAFE Standards) influence was generally balanced. In the Oil and Gas Rule environmentalists were influential in agenda setting and the broader pre-proposal process, while business interests dominated the notice and comment stage. For the 2012 CAFE Standards Rule, both interests were involved in pre-proposal negotiations that shaped the final rule. Turning to the Tailoring Rule, it is clear that business influence during the notice and comment stage, as well as the rule finalization stage, was important in shaping the outcome. But, even here arguing that business groups drove the

outcome is likely inaccurate. First, some business interests were calling for thresholds as high as one million tons (Covanta Energy Corporation 2010), which the EPA did not accept. In addition, the fact that the EPA carried out the rule at all, ran counter to the arguments of many in the business community. Thus, the effort of the EPA to increase the thresholds in response to business concerns was important, but it is not an example of the agency caving to all business groups' priorities.

Thus, the most plausible argument from these results is that no one side was unduly influential on outcomes and in fact group influence is generally balanced. The structure of Figure 10 also supports this conclusion. One set of interest groups has to "win" in the agenda setting stage, and then must "win" at each stage of the rulemaking process to achieve their priorities. This requires interest groups to align their preferences with the president, while also navigating the EPA process predicated on including a wide variety of interests and building consensus for a rule's content. Then, the rule must survive litigation, where the EPA must defend the action they took. The argument that an interest will run the table across these areas is inconsistent with the data presented in this report and is probably unlikely for other controversial rules.

This conclusion is consistent with Rinfret's (2011a) research focused on more "normal rules" at the EPA, where she argued interest group influence was balanced. However, this conclusion is not consistent with Wagner et al. (2010) who asserted that business interests were disproportionately influential. The divergence in these findings from Wagner et al. (2010) may be explainable.

First, Wagner et al. (2010) do not include primary perspectives from interest groups to determine whether business groups that had more access throughout the rulemaking process, also wielded more overall influence. Second, Wagner et al. (2010) did not examine the agenda setting

stage and what caused the EPA to carry out these rules. As illustrated in this study, this stage can be important in explaining influence. And, third, the rules that Wagner et al. (2010) reviewed were not salient or economically significant. Thus, if Wagner et al.'s (2010) results are accurate and business groups dominated in these less significant rulemakings, it is still plausible that in controversial rules, like these climate rules, influence is more balanced.

The broader literature focused on agency capture also aligns with my conclusion, especially for controversial rules. Scholars have argued that the EPA and most federal agencies are not captured by regulated interests. This is because of the role of competing interest groups, political oversight, judicial review, and strong agency culture limit the ability of regulated interests to control outcomes (Eisner, Worsham, and Ringquist 2006; Rinfret & Pautz, 2014). These factors also can limit environmentalists' impact as well. In the case of the EPA, the agency has often had supporters and opponents in the interest group community that have monitored agency activities. At the same time, political overseers in Congress and the Executive Branch have done the same, in part resulting from interest group pressure to do so (Eisner et al., 2006). The participation of these groups can influence agency actions and limit the opportunity for overly favorable outcomes to one side or the other. In the event that one side did win, if the outcome runs counter to the EPA's overall mission or statutory authority the courts are likely to overturn the rule (Eisner et al., 2006). As a result, it may be likely that interest group influence is balanced across not just controversial rules as outlined in this study but all rules at the EPA.

Concluding Thoughts and Outlook

Overall, this dissertation set out to answer three questions 1) what strategies did interest groups use to influence the EPA; 2) did these strategies translate into influence; and 3) what can

this tell us about the role of interest groups in other controversial rules at the EPA and the bureaucracy broadly?

In relation to question 1, it is clear that interest groups used a variety of strategies to influence the EPA during the pre-proposal and notice and comment stage. Though this dissertation clarifies the importance of considering the agenda setting process separately from the other pre-proposal activities (i.e. drafting the rule), it does not go into great detail regarding interest groups strategies during this process. Rather, I focus on interest group activities when the agency begins to draft the rule. Here, the most frequent strategy employed by stakeholders was to participate in informal interactions with agency personnel. This approach was favored over that of meetings with OMB in particular. Interest groups were more varied in their notice and comment stage strategies, though submitting public comments was the most common strategy employed.

Ultimately, interest groups perceived these two strategies (informal interactions with agency personnel during the pre-proposal stage and submitting public comments) as most impactful on the agency and this is borne out in my results. Though both were important, interest groups found their informal conversations and meetings with agency personnel as the most useful strategy for influencing the agency overall. Regardless, both environmental and business interests influenced the agency via these two pathways. Environmental interests may have been more influential during the pre-proposal process and business interests more so during the notice and comment period. Despite these differences, this chapter clarifies that no set of groups dominated any of these rules, rather influence was generally balanced. Thus, I argue that these conclusions are likely to be true in other controversial rules at the EPA and potentially the bureaucracy as a whole.

These conclusions also have some implications for the broader interest group literature and regulatory policy. My findings are most aligned with the elite pluralist perspective. Though more business interests were involved in these rulemakings, environmental and other public interest groups also participated. In addition, business and environmental groups bargained within their own coalitions and with the EPA to achieve their stated priorities. The resulting policy then reflects these bargaining activities, as elite pluralists posit. Finally, the fact that interest group influence was balanced is also consistent with the argument from elite pluralists' that though business interests may participate more frequently this does not mean that they will control policy outcomes. Therefore, interest group participation in rulemaking and policy more broadly may result in more effective policy that achieves societal goals. This may be even more likely in the context of administrative agencies given agency personnel's subject matter expertise and commitment to their agency's mission (Eisner et al., 2006; Kerwin & Furlong, 2011). Therefore, agency personnel may more effectively utilize interest group expertise to produce outcomes that achieve the public interest and carry out political goals and objectives. From this perspective, interest group participation in administrative activity should be encouraged.

To be clear, this dissertation focuses on controversial rules at the EPA. Nevertheless, I argue that these results are likely to be true in more normal rules as well. I come to this conclusion based upon the fact that the EPA is interested in receiving stakeholder input from a variety of perspectives and EPA rulemakings receive a lot of attention overall from both environmental and business interests (Rinfret & Furlong 2011). As a result, I would argue that the elite pluralist perspective may carry over to more normal rules particularly at the EPA. Simply put, there may be fewer participants in less controversial rulemakings, but this does not mean that both environmental and business interests won't participate. In fact, in some less

controversial rulemakings, interest group influence has been balanced at the most critical stage, the pre-proposal stage (Rinfret, 2011a; 2011b; 2011c). Thus, I argue that even if business interests dominate the notice and comment stage as is common in both normal and controversial rules, the elite pluralist perspective may still best explain outcomes, given environmental interests may participate earlier in the process and influence the overall outcome of the rule.

Finally, as the Trump administration enters office with a different ideological perspective on environmental regulation, it is useful to conjecture about what this may mean for my results. President Trump has publically stated his goal to reduce environmental regulations on business, suggesting that these interests may have a more receptive ear within the administration (Davenport 2017). This is likely to influence the priorities of the EPA and the types of regulations the agency will consider and finalize. Moreover, the administration is likely to attempt to rollback some environmental regulations, including those in the climate change space (Davenport, 2017). These are important changes that will impact regulatory processes at the EPA, but they should not be overstated.

It is still unlikely that business interests will be able to control regulatory outcomes at the EPA. This is because the agency has been charged with carrying out existing legislative directives from Congress. Once a rule is finalized, it also has the effect of law and the EPA has an obligation to implement it.⁵⁸ If the Trump administration directs the agency to withdraw or significantly rollback regulations, the agency must carry out another rulemaking process that justifies that outcome. Environmentalists are likely to question the agency's conclusions in this regard and can also force the agency to act on its legislative obligations (as was the case in the Oil and Gas Rule). Once a rulemaking starts, the agency may continue to conduct their

_

⁵⁸ Should the EPA renege on its enforcement responsibilities, interest groups have the opportunity to file civil suits against polluters in lieu of agency enforcement (Eisner et al., 2006).

Trump administration may influence the process, but it may not result in outcomes that are solely influenced by business interests. Nevertheless, given President Trump's statements on the environment and climate change policy in particular, these conclusions will certainly be tested in the years to come. Future work applying my framework to the EPA and other agencies during the Trump administration should clarify just how much success President Trump has in this regard.

References

- Acs, A. (2015). Which Statute to Implement? Strategic Timing by Regulatory Agencies. *Journal of Public Administration Research and Theory*. Forthcoming: Doi: 10.1093/jopart/muv018.
- Administrative Procedures Act of 1946, 5 U.S.C. § 553 (2010).
- Alliance of Automobile Manufacturers. (2010). *Commitment Letter*. https://www3.epa.gov/otaq/climate/regulations/auto-alliance-commitment-ltr-05-20-10.pdf.
- API. (2012). *Oil and Gas NSPS and NESHAPS*. https://www.whitehouse.gov/sites/default/files/omb/assets/oira_2060/2060_03222012-1.pdf.
- Bagley, N. and Revesz, R.L. (2006). Centralized Oversight of the Regulatory State. *Columbia Law Review* 106: 1260-329.
- Balla, S.J., Deets, J.M., and Maltzman, F. (2011). Outside Communications and OIRA Review of Agency Regulations. In *Administrative Law Review* Special Edition (63) (pp.149-177).
- Baumgartner, F.R., Berry, J.M., Hojnacki, M., Kimball, D.C., and Leech, B.L. (2009). Lobbying and Policy Change Who Wins, Who Loses, and Why. Chicago: Chicago University Press, pp. 132-33.
- Bayer MaterialScience (2012). Re: NHTSA Docket NHTSA-2010-0131; EPA-HQ-OAR-2010-0799; Proposed Rule for 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards.

 https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2010-0799-9265&attachmentNumber=1&disposition=attachment&contentType=pdf.
- Berry, J.M. (1989). "Subgovernments, Issue Networks, and Political Conflict," (Harris, R.A. and Milkis, S.M. eds.) *Remaking American Politics*. Boulder, CO: Westview Press.
- BorgWarner. (2012). Re: 2017 and Later Model Year Light-duty Vehicle Greenhouse Gas

 Emissions and Corporate Average Fuel Economy Standards.

 https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2010-0799-9320&attachmentNumber=1&disposition=attachment&contentType=pdf.
- Bravender, R. (2011). Spurned on smog, will EPA head go? *Politico*. http://www.politico.com/story/2011/09/spurned-on-smog-will-epa-head-go-062778.
- Broder, J.M. (2012). U.S. Caps Emissions in Drilling for Fuel. *The New York Times*. http://www.nytimes.com/2012/04/19/science/earth/epa-caps-emissions-at-gas-and-oil-wells.html.
- Broder, J.M. (2010a). Graham Pulls Support for Major Senate Climate Bill. http://www.nytimes.com/2010/04/25/us/politics/25graham.html.
- Broder, J.M. (2010b). Climate Change Doubt is Tea Party Article of Faith. *The New York Times*. http://www.nytimes.com/2010/10/21/us/politics/21climate.html.
- Broder, J.M. (2009a). House Passes Bill to Address Threat of Climate Change. *The New York Times*. http://www.nytimes.com/2009/06/27/us/politics/27climate.html.
- Broder, J. M. (2009b). E.P.A. Moves to Curtail Greenhouse Gas Emissions. *The New York Times*. http://www.nytimes.com/2009/10/01/science/earth/01epa.html.
- Butler, H. N. and Harris, N.J. (2014). Sue, Settle, and Shut Out the States: Destroying the Environmental Benefits of Cooperative Federalism. Forthcoming: in *Harvard Journal of Law & Public Policy*.

- Campbell Rawlings, K. (2012). Attending Tocqueville's School Examining the Intrapersonal, Political, and Civic Effects of Nonprofit-Board Participation. *Administrative Theory and Praxis* 34(3): (320-356).
- CARB (2013). Clean Car Standards Pavley, Assembly Bill 1493. http://www.arb.ca.gov/cc/ccms/ccms.htm.
- Chemnick, J. (2014). Republicans target NRDC 'lobbying machine' in hearing on climate rule. *E&E Publishing*. http://www.eenews.net/stories/1060003372.
- Clean Air Task Force, Natural Resources Defense Council, Sierra Club, Union of Concerned Scientists, Ohio Environmental Council, and the Chesapeake Bay Foundation. (2008).
 COMMENTS OF: CLEAN AIR TASK FORCE NATURAL RESOURCES DEFENSE COUNCIL SIERRA CLUB CHESAPEAKE BAY FOUNDATION OHIO ENVIRONMENTAL COUNCIL UNION OF CONCERNED SCIENTISTS.
 https://www.regulations.gov/document?D=EPA-HQ-OAR-2008-0318-1814.
- CNN (2010). Brown wins Massachusetts Senate Race. *CNN*. http://www.cnn.com/2010/POLITICS/01/19/massachusetts.senate/.
- Coglianese, C. (2001). Assessing the Advocacy of Negotiated Rulemaking: A Response to Philip Harter. *New York University Environmental Law Journal*, 9, 386-447.
- Copeland, C.W. (2008). Midnight Rulemaking: Considerations for Congress and a New Administration. *CRS Report for Congress*. https://www.fas.org/sgp/crs/misc/RL34747.pdf.
- Cook, J.J. (2015). Let's Make A Deal: Closed Door Politics in Colorado Fracking Policy. Forthcoming *Journal of Natural Resources Policy Research*. DOI: 10.1080/19390459.2015.1080899.
- Cook, J.J. (2014a). Are We There Yet? A Roadmap to Understanding the Players in the NPS Rulemaking Process. Forthcoming in *Society and Natural Resources*.
- Cook, J.J. (2014b). Who's Regulating Who? Analyzing Fracking Policy in Colorado, Wyoming, and Louisiana. Forthcoming in June Issue of *Environmental Practice*.
- Cook, J.J., and Rinfret S.R. (2013a). The EPA Regulates GHG Emissions: Is Anyone Paying Attention? *Review of Policy Research* 30(3): (263-80).
- Cook, J. J. and Rinfret, S.R. (2013b). A Revised Look: EPA Rulemaking Processes. *Journal of Environmental Studies and Sciences* 3(3): (279-89)
- Cox, G.W. and McCubbins, M.D. (1993). *Legislative Leviathan: Party Government in the House*. University of California Press.
- Cox, G.W. and McCubbins, M.D. (2006). *Setting the Agenda: Responsible Party Government in the U.S. House of Representatives*. Cambridge: Cambridge University Press.
- Creswell, J..W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches.* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Croley, S. (2003). White House review of agency rulemaking: An empirical investigation. In *University of Chicago Law Review* (70)3 (pp. 821-885).
- Crowley, C., Harre, R., and Tagg, C. (2002). Editorial Qualitative Research and computing: methodological issues and practices in using QSR NVivo and NUD*IST. *International Journal of Social Research Methodology* 5(3): (193-197).
- Davenport, C. (2014). Taking Oil Industry Cue, Environmentalsts Drew Emissions Blueprint. *The New York Times*. http://www.nytimes.com/2014/07/07/us/how-environmentalists-drew-blueprint-for-obama-emissions-rule.html?_r=0.

- Davenport, C. (2014). Republicans Vow to Fight E.P.A. and Approve Keystone Pipeline. *The New York Times*. http://www.nytimes.com/2014/11/11/us/politics/republicans-vow-to-fight-epa-and-approve-keystone-pipeline.html.
- Davenport, C. (2015a). McConnell Urges States to Defy U.S. Plan to Cut Greenhouse Gas. *The New York Times*. http://www.nytimes.com/2015/03/05/us/politics/mcconnell-urges-states-to-defy-us-plan-to-cut-greenhouse-gas.html.
- Davenport, C. (2015b). Senate Votes to Block Obama's Climate Change Rules. *The New York Times*. http://www.nytimes.com/2015/11/18/us/politics/senate-blocks-obamas-climate-change-rules.html.
- Davenport, C. (2017). "Scott Pruitt Is Seen Cutting the E.P.A. with a Scalpel, not a Cleaver." *The New York Times*. https://www.nytimes.com/2017/02/05/us/politics/scott-pruitt-is-seen-cutting-the-epa-with-a-scalpel-not-a-cleaver.html.
- Denso International. (2012). *RE: Docket Nos. EPA_HQ-OAR-2010-7099; NHTSA-2010-0131*. https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2010-0799-9269&attachmentNumber=1&disposition=attachment&contentType=pdf.
- Duane, T.P. (2013). Courts, Legal Analysis, and Environmental Policy. In Kamieniecki, S. and Kraft, M.E. *The Oxford Handbook of U.S. Environmental Policy*. Oxford: Oxford University Press, (259-279).
- DuBois, S. (2010). EPA's Jackson: The new face of tough regulation. *Fortune*. http://archive.fortune.com/2010/09/29/news/companies/EPA_Lisa_Jackson_fracking.fortune/index.htm.
- Duffy, R.J. (2012). Organized Interests and Environmental Policy. In Kamieniecki, S. and Kraft, M.E. *The Oxford Handbook of U.S. Environmental Policy*. Oxford: Oxford University Press, (504-524).
- Duffy, R.J. (2008). *Conflict Expansion or Conflict Management? Energy Development in Colorado*. Paper presented at the Annual Meeting of the Western Political Science Association, Manchester Hyatt, San Diego, CA,. Available at http://citation.allacademic.com/meta/p237873_index.html.
- Duffy, R. J. (2003). The green agenda in American politics: New strategies for the twenty-first century. Lawrence: University Press of Kansas.
- Eilperin, J. (2012). EPA head Jackson to resign post. *The Washington Post*. https://www.washingtonpost.com/national/health-science/epa-head-jackson-to-resign-post/2012/12/27/50637f50-4fda-11e2-8b49-64675006147f_story.html.
- Elo, S. & Kyngas, H. (2008). The Qualitative Content Analysis Process. *Journal of Advanced Nursing* 62(1), (107-115).
- Entman, R.M. (1996). Reporting environmental policy debate: The real media biases. In *Press/Politics* 1, (77-92).
- EPA (n.d.). Environmental Protection Agency (EPA) Statement of Priorities. https://www.reginfo.gov/public/jsp/eAgenda/StaticContent/201610/Statement_2000.html.
- EPA (2016a). *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2014*. <u>https://www.epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-1990-2014</u>.
- EPA, (2016a). *About RegDaRRT*. https://yosemite.epa.gov/opei/rulegate.nsf/content/about.html?opendocument#priority.
- EPA. (2016b). Regulatory Actions. *Oil and Natural Gas Air Pollution Standards*. https://www3.epa.gov/airquality/oilandgas/actions.html.
- EPA (2015a). Endangerment and Cause or Contribute Finding for Greenhouse Gases under

- Section 202(a) of the Clean Air Act. http://www.epa.gov/climatechange/endangerment/.
- EPA (2015b). EPA Order 1110.2. http://www2.epa.gov/aboutepa/epa-order-11102.
- EPA (2015c). California Greenhouse Gas Waiver Request. http://www.epa.gov/oms/climate/ca-waiver.htm.
- EPA (2014). *Prevention of Significant Deterioration (PSD) Basic Information*. http://www.epa.gov/nsr/psd.html.
- EPA (2013a). Timeline of EPA's Endangerment Finding. Retrieved from:
 http://www.epa.gov/climatechange/Downloads/endangerment/EndangermentFinding_Timeline.pdf.
- EPA (2013b). Denial of Petitions for Reconsideration of the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act. Retrieved from: http://www.epa.gov/climatechange/endangerment/petitions.html.
- EPA (2013c). U.S. Court of Appeals D.C. Circuit Upholds EPA's Actions to Reduce Greenhouse Gases under the Clean Air Act. Retrieved from: http://www.epa.gov/climatechange/endangerment/ghgcourtdecision.html.
- EPA (2013d). Regulations and Standards. Retrieved from: http://www.epa.gov/otaq/climate/regulations.htm.
- EPA (2012a). Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews. *Federal Register* 77(159) 49490-49600. http://www.gpo.gov/fdsys/pkg/FR-2012-08-16/pdf/2012-16806.pdf.
- EPA (2012b). Overview of Final Amendments to Air Regulations for the Oil and Natural Gas Industry. http://www.epa.gov/airquality/oilandgas/pdfs/20120417fs.pdf.
- EPA (2012c). Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews. Response to Public Comments on Proposed Rule August 23, 2011 (76 FR 52738). U.S. Environmental Protection Agency. Washington D.C.
- EPA (2012d). Summary of Key Changes to the New Source Performance Standards. https://www3.epa.gov/airquality/oilandgas/pdfs/20120417changes.pdf.
- EPA (2012e). 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards: EPA Response to Comments. U.S. Environmental Protection Agency. Washington D.C.
- EPA (2011a). PROPOSED AMENDMENTS TO AIR REGULATIONS FOR THE OIL AND NATURAL GAS INDUSTRY FACT SHEET. http://www.epa.gov/airquality/oilandgas/pdfs/20110728factsheet.pdf.
- EPA (2011b). Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews. *Federal Register* 76(163). (52738-52843).
- EPA (2011c). Lessons Learned from Natural Gas STAR Partners. http://www3.epa.gov/gasstar/documents/reduced_emissions_completions.pdf.
- EPA (2010). Prevention of Significant Deterioration and Title V GHG Tailoring Rule: EPA's Response to Public Comments. U.S. Environmental Protection Agency. Washington D.C.
- EPA (2009a). EPA Finds Greenhouse Gases Pose Threat to Public Health, Welfare/Proposed Finding Comes in Response to 2007 Supreme Court Ruling. http://yosemite.epa.gov/opa/admpress.nsf/0/0EF7DF675805295D8525759B00566924.
- EPA (2009b). California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent

- Model Year Greenhouse Gas Emission Standards for New Motor Vehicles. *Federal Register* 74(129): (32744 32784). https://www.gpo.gov/fdsys/pkg/FR-2009-07-08/pdf/E9-15943.pdf.
- EPA (2009e). Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202 (a) of the Clean Air Act; Final Rule 74 Fed. Reg. 66496 (2009) (to be codified at 40 CFR Chapter 1).

 http://www.epa.gov/climatechange/Downloads/endangerment/Federal_Register-EPA-HQ-OAR-2009-0171-Dec.15-09.pdf.
- EPA (2009d). Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule. Proposed Rule. *Federal Register* 74(206): 55292 55365.
- EPA (2008a). California State Motor Vehicle Pollution Control Standards; Notice of Decision Denying a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles. *Federal Register* 73(45) (12156-12169). http://www.gpo.gov/fdsys/pkg/FR-2008-03-06/pdf/E8-4350.pdf.
- EPA (2008b). Regulating Greenhouse Gas Emissions under the Clean Air Act Advanced Notice of Proposed Rulemaking.

 http://www.epa.gov/climatechange/Downloads/anpr/ANPRPreamble.pdf.
- EPA (2002). "National Emission Standards for Hazardous Air Pollutants: Revision of Area Source Category List Under Section 112(c)(3) and 112 (k)(3)(B)(ii) of the Clean Air Act." *Federal Register* (67)123: (43112 43113).
- EPA & DOT (2012). 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards Rule. *Federal Register* 77(199): (62623-63200). Retrieved from: http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/2017-25 CAFE Final Rule.pdf.
- EPA & DOT (2011). 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards. Proposed Rule. *Federal Register* (76)231: (74854-75420). Retrieved from: http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/2017-25_CAFE_NPRM.pdf.
- EPA & DOT (2010). Light-Duty Vehicles Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, Final Rule. *Federal Register* (73)88: (25324 25728). Retrieved from: http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/CAFE-GHG_MY_2012-2016_Final_Rule_FR.pdf.
- Fiorina, M. 1982. Legislative Choice of Regulatory Forms: Legal Process or Administrative Process. *Public Choice* 39.
- Furlong, S.R. (2007). Businesses and the Environment: Influencing Agency Policymaking. In Kraft, M.E., and Kamieniecki, S. eds. *Business and Environmental Policy Corporate Interests in the American Political System*. Cambridge, MA: MIT Press. (155-184).
- Furlong, S. (1995). Reinventing regulatory development at the Environmental Protection Agency. Policy Studies J 23(3): 466-482.
- GAO (2015). ENVIRONMENTAL LITIGATION Information on Cases against EPA and FWS and on Deadline Suits on EPA Rulemaking. http://gao.gov/assets/680/671846.pdf.
- Goffman, E. (1974). *Frame analysis: An essay on the organization experience*. Boston, MA: Northeastern University Press.

- Golden, M. (2003). All of the above (but with Congress rising): Who sets the rulemaking agendas in federal agencies? [Presentation] *Paper presented at the Annual Meeting of American Political Science Association*. Philadelphia, PA.
- Golden, M. (1998). Interest Groups in the Rule-Making Process: Who Participates? Whose Voices Get Heard? In *Journal of Public Administration Research and Theory*, 8, (245-270).
- Goldenberg, S. (2015). Obama will use veto to defend climate change plan if necessary. *The Guardian*. http://www.theguardian.com/environment/2015/jul/30/obama-will-use-veto-to-defend-climate-change-plan-if-necessary.
- Goldenberg, S. (2013). Obama climate change plan gets first airing in front of House sceptics. *The Guardian*. http://www.theguardian.com/environment/2013/sep/18/epa-obama-climate-change-plan-congress.
- Gray, B. (2003). Framing environmental disputes. In R. Lewicki, B. Gray, & M. Elliot (Eds.), *Making sense of intractable environmental conflicts* (11-34). Washington, DC: Island Press
- Griffith, E. (1939). Impasse of Democracy. New York: Harrison-Hilton Books.
- Henry, D. (2015). GOP gropes for way to kill climate rule. *The Hill*. http://thehill.com/policy/energy-environment/253456-gop-gropes-for-way-to-kill-climate-rule.
- Herszenhorn, D.M. (2015). Senate Passes Budget Bill and Sends It to Obama. *The New York Times*. http://www.nytimes.com/2015/10/31/us/politics/senate-clears-way-for-final-passage-of-budget-bill.html? r=0.
- Hoefer, R., & Ferguson, K. (2007). Controlling the levers of power: How advocacy organizations affect the regulation writing process. *Journal of Sociology & Social Welfare*, 34(2), (83–108).
- Hu, E. 2014. "3.7 Million Comments Later, Here's Where Net Neutrality Stands." *NPR News*. http://www.npr.org/sections/alltechconsidered/2014/09/17/349243335/3-7-million-comments-later-heres-where-net-neutrality-stands.
- Huber, J. and Shipan C. (2002). Deliberate Discretion: The Institutional Foundations of Bureaucratic Autonomy. New York, NY: Cambridge University Press.
- Hulse, C. and Herszenhorn, D.M. (2010). Democrats Call off Climate Bill Effort. *The New York Times*. http://www.nytimes.com/2010/07/23/us/politics/23cong.html.
- Hwang. (2011). "GM breaks from pack, says it will "find a way" to reach 56.2 mpg." *NRDC Expert Blog*. https://www.nrdc.org/experts/roland-hwang/gm-breaks-pack-says-it-will-find-way-reach-562-mpg.
- INGAA. (2011). Re: EPA Docket No. EPA-HQ-OAR-2010-0505; Comments regarding the Proposed Rule, Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 76 Fed. Reg. 52738 (Aug. 23, 2011). https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2010-0505-4104&attachmentNumber=1&disposition=attachment&contentType=pdf.
- Intel. (2009). *RE: Prevention Of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule; Proposed Rule 74 Fed. Reg. 55*,292 (Oct. 27, 2009). https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2009-0517-5417&attachmentNumber=2&disposition=attachment&contentType=pdf.
- Integrated Consultants. (2012). Vehicle Regenerative Deceleration Actuator and Indicator System and Method.

- https://www.regulations.gov/contentStreamer?documentId=NHTSA-2010-0131-0217&attachmentNumber=1&disposition=attachment&contentType=pdf.
- Kamieniecki, S. (2006). Corporate America and environmental policy: How often does business get its way? Stanford, CA: Stanford Law and Politics.
- Kennedy, K. (2012). More than 2 million comments supporting EPA protections against carbon pollution and climate change collected. . *US Climate Network Press Release*. http://www.usclimatenetwork.org/resource-database/more-than-two-million-comments-supporting-epa-protections-against-carbon-pollution-and-climate-change/.
- Kernell, S. (2007). *Going Public: New Strategies of Presidential Leadership*. Washington, DC: CQ Press.
- Kerwin, C. M., & Furlong, S. R. (2011). Rulemaking how government agencies write law and make policy. CQ Press, Washington D.C. pp. 49-180.
- Klyza, C., & Sousa, D. (2013). *American environmental policy, 1990-2006 beyond gridlock.* Cambridge, MA: Massachusetts Institute of Technology.
- Lacey, S. (2011). "Car Makers Oppose Fuel Standards that Would Save Consumers \$150 Billion." *ThinkProgess*. https://thinkprogress.org/car-makers-oppose-fuel-standards-that-would-save-consumers-150-billion-bf2ff9aef8b5#.lu7wyi6vy.
- Lerer, L. (2009). Sen. Lindsey Graham working with Sen. John Kerry on climate bill. *Politico*. http://www.politico.com/news/stories/1009/28158.html.
- Lewis, D.E. (2009). Revisiting the Administrative Presidency: Policy, Patronage, and Agency Competence. *Presidential Studies Quarterly* 39(1): 60-73.
- Lewis, D.E. 2008. *The Politics of Presidential Appointments: Political Control and Bureaucratic Performance*. Princeton: Princeton University Press.
- Liptak, A. (2014). Justices Uphold Emission Limits on Big Industry. *The New York Times*. http://www.nytimes.com/2014/06/24/us/justices-with-limits-let-epa-curb-power-plant-gases.html?r=0.
- Litvak, A. (2014). EPA's comment dilemma: so many voices, so little time. *Pittsburgh Post-Gazette*. http://powersource.post-gazette.com/powersource/policy-powersource/2014/12/02/EPA-s-comment-dilemma-so-many-voices-so-little-time/stories/201412020013.
- Macdonald, J. (2009). Lawmakers' Preferences for Bureaucratic Discretion: The Clean Air Act Amendments of 1990 and the Telecommunications Act of 1996. In Congress and the Presidency, 36 (164-180).
- Massachusetts et al. v. EPA et al. 549 U.S. 2, 5 (2007).
- McCubbins, M. D., Noll, R. G. and Weingast, B.R. 1987. Administrative Procedures as Instruments of Political Control. Journal of Law, Economics, and Organization 3: 243 277.
- McGarity, T. O. (1991). The internal structure of EPA rulemaking. *Law and Contemp Probl* 54, 57-111. www.heinonline.org. Accessed 11 March 2012.
- Mills, C.W. (1956). The Power Elite. Oxford, UK: Oxford University Press.
- Missouri Department of Natural Resources. (2009). *Attention: Docket ID No. EPA-HQ-OAR-2009-0517*. https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2009-0517-8025&attachmentNumber=1&disposition=attachment&contentType=pdf.
- Morse, J. M. & Chung, S. E. (2003). Toward holism: The significance of methodological pluralism. *International Journal of Qualitative Methods*, 2 (3). Article 2. https://www.ualberta.ca/~iiqm/backissues/2_3final/html/morsechung.html.

- Mouawad, J. (2009). Estimate Places Natural Gas Reserves 35% Higher. *The New York Times*. http://www.nytimes.com/2009/06/18/business/energy-environment/18gas.html.
- Nathan, R.P. (1983). The Administrative Presidency. New York: Wiley.
- Naughton, K., C. Schmid, S. W. Yackee, and Zhan. (2009). "Understanding Commenter Influence during Rule Development." *Journal of Policy Analysis and Management* 28 (2): 258–277.
- Neuhauser, A. (2015). Study: Clean Power Plan Could Save Thousands of Lives. *U.S. News & World Report*. http://www.usnews.com/news/articles/2015/05/04/epa-clean-power-plan-could-save-3-500-lives-a-year-study-says.
- NHTSA (2013). Documents Leading Up to the 2017-2025 NPRM.

 Retrieved from: http://www.nhtsa.gov/Laws+&+Regulations/CAFE+-+Fuel+Economy/Documents+Leading+Up+to+the+2017-2025+NPRM.
- NHTSA, (2011). Letters of Commitment from Stakeholders Supporting the MYs 2017-2025 Rulemaking Process. http://www.nhtsa.gov/Laws+&+Regulations/CAFE+-+Fuel+Economy/Letters+of+Commitment+from+Stakeholders+Supporting+the+MYs+2-017-2025+Rulemaking+Process. Accessed August 7, 2013.
- Nie, M. (2004). Administrative Rulemaking and Public Lands Conflict: The Forest Service's Roadless Rule. *Natural Resources Journal* 44 (687-742).
- Obama, B. (2015). Executive Order Planning for Federal Sustainability in the Next Decade. https://www.whitehouse.gov/the-press-office/2015/03/19/executive-order-planning-federal-sustainability-next-decade.
- Obama, B. (2011). Remarks by the President on Fuel Efficiency Standards. http://www.whitehouse.gov/the-press-office/2011/07/29/remarks-president-fuel-efficiency-standards. Accessed August 7, 2013.
- Obama, B. (2010). Presidential Memorandum Regarding Fuel Efficiency Standards. http://www.whitehouse.gov/the-press-office/presidential-memorandum-regarding-fuel-efficiency-standards. Accessed August 7, 2013.
- Olson, E.D. (1984). Quiet Shift of Power: OMB Supervision of EPA rulemaking Under Executive Order 12291. *Virginia Journal of Natural Resources Law* (4) (1-80).
- OMB (2009). Office of Information Regulatory Affairs (OIRA) Q&A's. https://www.whitehouse.gov/omb/OIRA_QsandAs.
- Opoien, J. (2014). Ron Johnson on climate change: 'The science is far from settled' *The Capital Times*. http://host.madison.com/ct/news/local/writers/jessie-opoien/ron-johnson-on-climate-change-the-science-is-far-from/article_9febb472-2bc3-5e25-9ec6-dbc97d320625.html.
- Paranhos, E. 2010. Protecting Human Health and the Environment through Rigorous, Cost-Effective Emission Standards for the Oil and Gas Industry. https://www.whitehouse.gov/sites/default/files/omb/assets/oira_2060/2060_07222011-2.pdf.
- Peterka, A., Taylor, P., and Quinones, M. (2015). Appropriations: Jewell, enviros slam 'dreadful' policy riders in interior-EPA bill. *E&E Daily*. http://www.eenews.net/stories/1060019954.
- Peters. G. (2015). State of the Union Addresses and Messages. http://www.presidency.ucsb.edu/sou.php.

- Phillips, A. (2015). The 6 issues that could cause a government shutdown. *The Washington Post*. http://www.washingtonpost.com/news/the-fix/wp/2015/09/15/the-6-issues-that-could-cause-a-government-shutdown/.
- Plautz, J. (2010). Autos: Groups launch campaign for 60 mpg fuel standard. http://www.eenews.net/special_reports/plugged_in/stories/1059939755.
- Reagan, R. (1981). Executive Order 12291 Federal regulation. http://www.archives.gov/federal-register/codification/executive-order/12291.html.
- Rein, M., & Shon, D. (1993). Reframing policy discourse. In F. Fischer & J. Forester (Eds.), *The argumentative turn in policy analysis and planning* (pp. 145-167). Durham, NC: Duke University Press.
- Richburg, K.B. (2008). California Sues EPA over Emissions Rules. *The Washington Post*. http://www.washingtonpost.com/wp-dyn/content/article/2008/01/02/AR2008010202833.html.
- Richey, W. (2013). "Landmark case? Supreme Court to review EPA regulation of greenhouse gases." *The Christian Science Monitor*.

 http://www.csmonitor.com/USA/Justice/2013/1015/Landmark-case-Supreme-Court-to-review-EPA-regulation-of-greenhouse-gases.
- Rinfret, S. R. (2011a). Cleaning up the air: The EPA and shuttle diplomacy. Environ Pract 13(3), (1-8).
- Rinfret, S. R. (2011b). Behind the Shadows: Interests, Influence, and the U.S. Fish and Wildlife Service. *Human Dimensions of Wildlife* (16) (1-13).
- Rinfret, S. R. (2011c). Frames of Influence: U.S. Environmental Rulemaking Case Studies. *Review of Policy Research* 28(3), (231-245).
- Rinfret, S. R. & Cook, J.J. (2014). "Inside the EPA's Rulemaking Process: The Reality of Reg Neg Lite" *Environmental Policy and Governance* 24(2): (122-133).
- Rinfret, S. R., Cook, J.J., & Pautz, M.C. (2014). Different States Different Approaches: Developing Fracking Policy in CO, OH, and NY. Forthcoming in *Review of Policy Research*.
- Rinfret, S. R., Furlong S. R. (2013). Defining environmental rulemaking. Forthcoming in: Kraft, M. E., Kamieniecki, S. Oxford Handbook of U.S. Environmental Policy.
- Rochefort, D. A., & Cobb, R. (1994). *The politics of problem definition: Shaping the policy agenda*. Kansas City: University Press of Kansas.
- Rosenberg, G. N. (2008). *The Hollow Hope: Can Courts Bring About Social Change?* (2nd Edition). Chicago: The University of Chicago Press.
- Sinclair, B. (2011). *Unorthodox Lawmaking* (4th Ed). Washington, DC: CQ Press.
- Soraghan, M. (2015). HYDRAULIC FRACTURING: Senate votes to keep 'Halliburton loophole'; regulation stays with states. *E&E Publishing, LLC*. http://www.eenews.net/stories/1060012514.
- Stone, D. (1989). "Causal Stories and the Formation of Policy Agendas," *Political Science Quarterly* 104: 281-300.
- Tally, I. (2009). EPA Set to Move Toward Carbon-Dioxide Regulation. *The Wall Street Journal*. http://www.wsj.com/articles/SB123531391527642021.
- The New York Times (2010a). Election 2010 House Map. *The New York Times*. http://elections.nytimes.com/2010/results/house.
- The New York Times (2010b). Election 2010 Senate Map. *The New York Times*. http://elections.nytimes.com/2010/results/senate.

- The New York Times (2010c). How the Tea Party Fared. http://www.nytimes.com/interactive/2010/11/04/us/politics/tea-party-results.html.
- The White House. (2016). Net Neutrality. https://www.whitehouse.gov/net-neutrality.
- The White House (2009). President Obama Announces National Fuel Efficiency Policy: http://www.whitehouse.gov/the-press-office/president-obama-announces-national-fuel-efficiency-policy.
- Thorpe, R. & Holt, R. (2008). *The Sage Dictionary of Qualitative Management Research*. Washington D.C.: Sage Publications.
- Truman, D. (1951). *The governmental process political interests and public opinion*. New York: Alfred A. Knopf.
- U.S. House of Representatives Committee on Oversight and Government Reform. (2012). *A Dismissal of Safety, Choice, and Cost: The Obama Administration's New Auto Regulations*. Staff Report. http://oversight.house.gov/wp-content/uploads/2012/08/CAFE-Report-8-10-12-FINAL.pdf.
- Vig N.J (2013a). Presidential Powers and Environmental Policy. In (Vig and Kraft eds.) Environmental policy: New directions for the twenty-first century (8th ed.). Washington D.C.: CQ Press.
- Vig, N.J. (2013b). American Presidency and Environmental Policy. In (Kraft, M. E., Kamieniecki, S. ed.) *Oxford Handbook of U.S. Environmental Policy*. Oxford: Oxford University Press.
- Vig, N., Kraft, M. (Eds.). (2013). *Environmental policy: New directions for the twenty-first century* (8th ed.). Washington D.C.: CQ Press.
- Volkswagen (2012). Subject: 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards.

 https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2010-0799-9569&attachmentNumber=1&disposition=attachment&contentType=pdf.
- Wagner, W.E., K.Y. Barnes, and L. Peters 2010. Rulemaking in the Shade: An Empirical Study of EPA's Air Toxic Regulations. *Administrative Law Review* 63(1): 99–158.
- Warrick, J. (2015). Outrage over EPA emissions regulations fades as states find fixes. *The Washington Post*. https://www.washingtonpost.com/national/health-science/with-new-epa-regulations-looming-some-states-gain-from-coals-free-fall/2015/07/23/80001208-2c93-11e5-bd33-395c05608059_story.html.
- Waterman, R.W. (1989). Presidential Influence and the Administrative State. Knoxville: University of Tennessee Press.
- West, W.F. (2015). The Administrative Presidency as Reactive Oversight: Implications for Positive and Normative Theory. *Public Administration Review* (75)4: 523-533.
- West, W.F. (2006). Presidential Leadership and Administrative Coordination: Examining the Theory of a Unified Executive. *Presidential Studies Quarterly* 36(3): 433-56
- West, W.F. (2005). The institutionalization of regulatory review: organizational stability and responsive competence at OIRA. *Presidential Studies Quarterly* 35(1): 76-93.
- West, W.F. (1995). Controlling the Bureaucracy: Institutional Constraints in Theory and Practice. Armonk, N.Y.: M.E. Sharpe.
- Weisman, J. and Meckler, L. (2008). Obama Sweeps to Historic Victory. *The Wall Street Journal*. http://www.wsj.com/articles/SB122581133077197035.
- Welna, D. (2010). Democrats Ponder Loss of Filibuster Proof Majority. *National Public Radio*. http://www.npr.org/templates/story/story.php?storyId=122799603.

- West, W. (2005). Special Report Administrative Rulemaking: An Old and Emerging Literature. *Public Administration Review*, 65, (655-668).
- West, W. (2009). Inside the Black Box: The Development of Proposed Rules and the Limits of Procedural Controls. *Administration and Society* (41) (576-599).
- The White House (2011). *President Obama Announces Historic 54.5 mpg Fuel Efficiency Standard*. https://www.whitehouse.gov/the-press-office/2011/07/29/president-obama-announces-historic-545-mpg-fuel-efficiency-standard.
- The White House (2009). *President Obama Announces National Fuel Efficiency Policy:*http://www.whitehouse.gov/the-press-office/president-obama-announces-national-fuel-efficiency-policy.
- Wood, B. D. and Waterman, R.W. (1991). The dynamics of political control of the bureaucracy. *American Political Science Review* 85(Sept): 801-828.
- Yackee, J. W. and Yackee, S. W. (2006) A Bias Towards Business? Assessing Interest Group Influence on the U.S. Bureaucracy. *The Journal of Politics*, 68, (128-139).
- Yackee, S.W. (2014). Participant Voice in the Bureaucratic Policymaking Process. Forthcoming in *Journal of Public Administration Research and Theory*. Doi: 10.1093/jopart/muu007.
- Yackee, S.W. (2013). Assessing Regulatory Participatoin by Health Professionals: A Study of State Health Rulemaking. *Public Administration Review*. (73)1: 105-114.
- 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(2), (373-393).
- 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.
- Yin, R.K. (2009). *Case Study Research Design and Methods*. 4th ed. Thousand Oaks, CA: Sage Publications Inc.
- Zaccardi, A. (2009). GROUPS SUE EPA FOR NOT PROTECTING CITIZENS FROM OIL, GAS DRILLING. http://earthjustice.org/news/press/2009/groups-sue-epa-for-not-protecting-citizens-from-oil-gas-drilling.

Appendix A

Semi-Structured Interview Protocol for Agency Staff

Hello, my name is Jeff Cook and I am a graduate student at Colorado State University. In collaboration with Dr. Robert Duffy, I am conducting this research project. The overarching purpose of this project is to examine the development of rulemakings at the Environmental Protection Agency (EPA). In terms of our discussion, we would be focusing on your role as a part of X Rule. Information provided in this interview may be used for the development of an article for an academic journal submission.

Participation in this study is voluntary, and you have the right to refuse participation in this study at any time even while the interview is in progress. There are no known risks or direct benefits to you, but we hope that the results of the study may give agencies a better understanding of how outside groups view the rulemaking process. If you decide to participate, the information you give is confidential and will not be attributed back to you. I will be taking written notes, but our conversation will not be recorded.

Additionally, this research was approved by the Institutional Review Board at Colorado State University. If you have any questions about your rights as a research subject, I will provide you with the contact information of the chair of the IRB, Janell Barker. Likewise, if you would like the contact information of my professor, Dr. Duffy, I can provide that for you.

Do you have any final questions about the research? Are you willing to be interviewed for the purpose of gathering data for this research? Excellent, let's begin.

- 1. What was your role in this rulemaking?
- 2. Why do you think this rule was on the agenda?
- 3. Would you discuss the process used by the agency to produce this rule prior to the formal proposal in the *Federal Register*?

- 4. Did you recall any stakeholder outreach prior to the proposal, if so why did the agency conduct this outreach?
- 5. Would you discuss the role of OMB within this rulemaking and potentially how their involvement in this rule compares with their presence in other rules?
- 6. From the proposed rule to the final rule can you recall and discuss any important changes?
 - a. What prompted these changes?
- 7. How did the agency deal with litigation in this case?
- 8. If the agency were to do this rule over again, what process improvements do you think would be useful?
- 9. This concludes my interview questions, is there anything you would like to add that I did not ask?
- 10. Would you mind identifying any other key players I should consider contacting for this study?

Appendix B

Semi-Structured Interview Protocol for Interest Groups

Hello, my name is Jeff Cook and I am a graduate student at Colorado State University. In collaboration with Dr. Robert Duffy, I am conducting this research project. The overarching purpose of this project is to examine the development of rulemakings at the Environmental Protection Agency (EPA). In terms of our discussion, we would be focusing on your interactions with these agencies as a part of X Rule. Information provided in this interview may be used for the development of an article for an academic journal submission.

Participation in this study is voluntary, and you have the right to refuse participation in this study at any time even while the interview is in progress. There are no known risks or direct benefits to you, but we hope that the results of the study may give agencies a better understanding of how outside groups view the rulemaking process. If you decide to participate, the information you give is confidential and will not be attributed back to you. I will be taking written notes, but our conversation will not be recorded.

Additionally, this research was approved by the Institutional Review Board at Colorado State University. If you have any questions about your rights as a research subject, I will provide you with the contact information of the chair of the IRB, Janell Barker. Likewise, if you would like the contact information of my professor, Dr. Robert Duffy, I can provide that for you.

Do you have any final questions about the research? Are you willing to be interviewed for the purpose of gathering data for this research? Excellent, let's begin.

- 1. What is your official title and how long have you worked in this position?
- 2. When did your group get involved in this rulemaking?
- 3. What were your organizations initial concerns with this rulemaking?
- 4. How did you convey these concerns to the agency?

- 5. Was the agency responsive to your concerns?
 - a. If so at what stage?
- 6. Were you involved in OMB meetings? If yes, would you elaborate on this process? In addition, would you discuss your perceptions of this office's role in the process?
- 7. If you submitted a comment, why do you think the agency made, or did not make, changes in response to your comment?
 - a. What in your opinion makes the agency more likely to change a rule in response to a comment?
- 8. In your opinion, are there certain arguments that receive more traction within the agency in terms of gaining influence on outcomes?
 - a. Does the stage of the process that you get involved in matter in influencing the agency?
- 9. Do you think other groups or institutions have more impact? If so, who and why?
- 10. Were your actions in this rule similar to your actions in other rulemakings?
 - a. Why or why not?
- 11. If the agency were to do this rule over again, what would you suggest the EPA do to improve the process or outcome?
- 12. This concludes my interview questions, is there anything you would like to add that I did not ask?
- 13. Would you mind identifying any other key players I should consider contacting for this study?

Appendix C

Coded References by Frame Used to Influence Agency Personnel

| | Frames | | Tailoring Rule | 2012 CAFE Standard Rule | Oil & Gas Rule | |
|-----------------------|----------------------------|--------------------|----------------|-------------------------|----------------|-------|
| Lewicki et al. Frames | Lewicki et al. Subframe | Rinfret's Frames | References | References | References | Total |
| Identity | | | | | | 0 |
| Characterization | | | | | | 0 |
| Conflict Management | | | | | | 0 |
| | Avoidance | | | | | 0 |
| | Fact-finding | Expertise | 16 | 36 | 22 | 74 |
| | joint problem solving | | 3 | 13 | 1 | 17 |
| | Expertise | Expertise | 20 | 45 | 32 | 97 |
| | Adjudication | | 1 | | 0 | 1 |
| | appeal to political action | | 0 | | 1 | 1 |
| | market economy | | 0 | 3 | | 3 |
| | struggle/violence | | | | | 0 |
| | other/grassroots | | | | | 0 |
| Whole Story | | Instructive | 39 | 77 | 39 | 155 |
| Social Control | | | | | | 0 |
| Power | | | | | | 0 |
| | Authority/positional | | 1 | | | 1 |
| | Resources | Expertise | 11 | 7 | 10 | 28 |
| | Expertise | Expertise | 1 | 0 | 3 | 4 |
| | Personal | | 5 | 3 | 1 | 9 |
| | Coalitional | | 0 | 0 | 0 | 0 |
| | Sympathy | | 0 | 0 | 2 | 2 |
| | Force | | 0 | 0 | | 0 |
| | Moral | | 1 | 0 | | 1 |
| | Voice | | 0 | 0 | 3 | 3 |
| Risk Perception | | Fiscal Feasibility | 3 | 7 | 1 | 11 |

| Loss vs gain | Fiscal Feasibility 5 | 5 | 18 | 8 | 31 |
|------------------------------|----------------------|---|-----|-----|-----|
| | Added Frames | | | | |
| Fiscal Feasibility (Broadly) | 14 | 1 | 12 | 16 | 42 |
| Legal | 20 |) | 15 | 15 | 50 |
| Public Health | 2 | 2 | 0 | 0 | 2 |
| Cumulative Total | 142 | 2 | 236 | 154 | 532 |

Appendix D

Table 22. Tailoring Rule Pairwise Correlations between Each Independent Variable

| Variable | DC | State Agency | Environmental Interest | Trade/Business Group | Fiscal Arguments | Legal Arguments | Technical Arguments | Policy Arguments | Recommendations | Page Count |
|------------------------------|-----------|-----------------|---------------------------|-------------------------|---------------------|--------------------|------------------------|---------------------|-----------------|---------------|
| DC | 1.0 | | | | | | | | | |
| State Agency | - 0.11 | 1.0 | | | | | | | | |
| Environmental Interests | 0.02 | -0.16 | 1.0 | | | | | | | |
| Trade/Business Group | 0.09 | -0.47 | -0.53 | 1.0 | | | | | | |
| Fiscal Arguments | 0.01 | -0.07 | -0.19 | 0.16 | 1.0 | | | | | |
| Legal Arguments | - 0.14 | -0.11 | 0.08 | 0.05 | -0.20 | 1.0 | | | | |
| Technical Arguments | 0.11 | 0.23 | -0.14 | -0.05 | -0.40 | -0.19 | 1.0 | | | |
| Policy Arguments | 0.25 | -0,08 | 0.22 | -0.10 | -0.03 | -0.55 | -0.43 | 1.0 | | |
| Number of Recommendations | 0.24 | 0.18 | -0.17 | 0.05 | -0.19 | 0.08 | 0.48 | -0.40 | 1.0 | |
| Page Count | 0.43 | -0.13 | 0.16 | 0.04 | -0.13 | 0.45 | 0.19 | -0.47 | 0.38 | 1.0 |

Table 23. Oil and Gas Rule Pairwise Correlations between Each Independent Variable

| Variable | DC | State | Environmental | Trade/Business | Fiscal | Legal | Technical | Policy | Other | Recommendations | Page |
|--------------|-----|--------|---------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------------|-------|
| | | Agency | Interest | Group | Arguments | Arguments | Arguments | Arguments | Arguments | | Count |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| DC | 1.0 | | | | | | | | | | |
| State Agency | - | 1.0 | | | | | | | | | |

| | 0.11 | | | | | | | | | | |
|----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|-----|
| Environmental Interests | 0.02 | -0.16 | 1.0 | | | | | | | | |
| Trade/Business Group | 0.09 | -0.47 | 0.18 | 1.0 | | | | | | | |
| Fiscal Arguments | 0.05 | -0.11 | -0.06 | 0.18 | 1.0 | | | | | | |
| Legal Arguments | 0.25 | -0.10 | 0.04 | 0.11 | 0.10 | 1.0 | | | | | |
| Technical Arguments | 0.08 | 0.20 | -0.42 | 0.38 | -0.07 | 0.14 | 1.0 | | | | |
| Policy Arguments | 0.15 | -0.03 | 0.04 | -0.22 | -0.26 | -0.34 | -0.60 | 1.0 | | | |
| Other Arguments | 0.02 | -0.13 | 0.56 | -0.40 | -0.08 | -0.08 | -0.46 | -0.13 | 1.0 | | |
| Number of Recommendations | 0.11 | -0.07 | 0.06 | 0.09 | 0.16 | 0.38 | 0.39 | -0.54 | 0.02 | 1.0 | |
| Page Count | 0.22 | -0.08 | 0.21 | -0.09 | 0.15 | 0.41 | 0.18 | -0.26 | -0.08 | 0.57 | 1.0 |

Table 24. 2012 CAFE Standards Rule Pairwise Correlations between each independent variable

| Variable | DC | State | Environmental | Trade/Business | Fiscal | Legal | Technical | Policy | Other | Recommendations | Page |
|------------------|------|--------|---------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------------|-------|
| | | Agency | Interest | Group | Arguments | Arguments | Arguments | Arguments | Arguments | | Count |
| DC | 1.0 | | | | | | | | | | |
| State Agency | - | 1.0 | | | | | | | | | |
| | 0.10 | | | | | | | | | | |
| Environmental | - | 16 | 1.0 | | | | | | | | |
| Interests | 0.02 | | | | | | | | | | |
| Trade/Business | 0.09 | -0.47 | -0.53 | 1.0 | | | | | | | |
| Group | | | | | | | | | | | |
| Fiscal Arguments | - | -0.07 | 0.12 | -0.31 | 1.0 | | | | | | |
| | 0.11 | | | | | | | | | | |
| Legal Arguments | 0.18 | -0.08 | 0.11 | 0.03 | -0.08 | 1.0 | | | | | |
| Technical | 0.02 | 0.07 | -0.25 | 0.38 | -0.49 | -0.17 | 1.0 | | | | |
| Arguments | | | | | | | | | | | |
| Policy Arguments | - | 0.27 | 0.22 | -0.33 | -0.09 | -0.20 | -0.63 | 1.0 | | | |
| | 0.11 | | | | | | | | | | |
| Other Arguments | 0.06 | -0.05 | -0.09 | 0.17 | -0.09 | 0.12 | 0.03 | -0.13 | 1.0 | | |
| Number of | 0.20 | -0.09 | 0.01 | 0.19 | -0.10 | 0.09 | 0.40 | -0.44 | 0.18 | 1.0 | |
| Recommendations | | | | | | | | | | | |
| Page Count | 0.29 | -0.07 | -0.08 | 0.17 | -0.06 | 0.17 | -0.13 | -0.24 | -0.03 | 0.17 | 1.0 |

Tailoring Rule Regression Results

| Logistic regression | Number of obs | = | 400 |
|-----------------------------|---------------|---|--------|
| | LR chi2(9) | = | 156.37 |
| | Prob > chi2 | = | 0.0000 |
| Log likelihood = -161.77613 | Pseudo R2 | = | 0.3258 |

| changeldum | Coef. | Std. Err. | z | P> z | [95% Conf. | Interval] |
|---------------|-----------|-----------|-------|-------|------------|-----------|
| dcdum | .3490901 | .3524838 | 0.99 | 0.322 | 3417654 | 1.039946 |
| stateagdum | 2.229231 | .8282219 | 2.69 | 0.007 | .6059463 | 3.852516 |
| publicdum | -1.237055 | 1.184436 | -1.04 | 0.296 | -3.558507 | 1.084398 |
| tradebusdum | .8233481 | .78548 | 1.05 | 0.295 | 7161645 | 2.362861 |
| fiscalperce~1 | 9190743 | 1.229114 | -0.75 | 0.455 | -3.328093 | 1.489944 |
| legalpercent1 | 1.971767 | .8210239 | 2.40 | 0.016 | .3625896 | 3.580944 |
| techpercent1 | 2.840373 | .868328 | 3.27 | 0.001 | 1.138481 | 4.542264 |
| numberrecs1 | .400481 | .0831687 | 4.82 | 0.000 | .2374733 | .5634886 |
| pgcnt1 | .0127632 | .0151586 | 0.84 | 0.400 | 0169471 | .0424735 |
| _cons | -4.608887 | .8952458 | -5.15 | 0.000 | -6.363536 | -2.854237 |

Oil and Gas Rule Regression Results

| Logistic regression | Number of obs | = | 175 |
|-------------------------------|---------------|---|--------|
| | LR chi2(9) | = | 109.27 |
| | Prob > chi2 | = | 0.0000 |
| Log likelihood = -59.125225 | Pseudo R2 | = | 0.4803 |

| change5dum | Coef. | Std. Err. | z | P> z | [95% Conf. | Interval] |
|---------------|-----------|-----------|-------|-------|------------|-----------|
| dcdum | -1.272528 | .7376166 | -1.73 | 0.084 | -2.71823 | .173174 |
| stateagdum | 16.91176 | 1826.055 | 0.01 | 0.993 | -3562.09 | 3595.914 |
| publicdum | 14.97891 | 1826.055 | 0.01 | 0.993 | -3564.024 | 3593.981 |
| tradebusdum | 16.64361 | 1826.055 | 0.01 | 0.993 | -3562.358 | 3595.646 |
| fiscalperce~5 | .003811 | .0197535 | 0.19 | 0.847 | 0349051 | .0425271 |
| legalpercent5 | .0064992 | .0385016 | 0.17 | 0.866 | 0689626 | .081961 |
| techpercent5 | .0202677 | .0102845 | 1.97 | 0.049 | .0001105 | .0404249 |
| numberrecs5 | .178345 | .0506418 | 3.52 | 0.000 | .0790888 | .2776011 |
| pgcnt5 | .0212071 | .0109436 | 1.94 | 0.053 | 000242 | .0426561 |
| _cons | -19.84092 | 1826.055 | -0.01 | 0.991 | -3598.844 | 3559.162 |

Note: 11 failures and 0 successes completely determined.

2012 CAFE Standards Rule Regression Results

| Logistic regression | Number of obs | = | 160 |
|---------------------|---------------|---|--------|
| | LR chi2(9) | = | 64.30 |
| | Prob > chi2 | | 0.0000 |

0.0000 Log likelihood = -60.97035 0.3453 Pseudo R2 =

| change3dum | Coef. | Std. Err. | z | P> z | [95% Conf. | Interval] |
|---------------|-----------|-----------|-------|-------|------------|-----------|
| dcdum | .2308894 | .4946577 | 0.47 | 0.641 | 7386219 | 1.200401 |
| stateagdum | 2.914104 | 1.43851 | 2.03 | 0.043 | .094676 | 5.733533 |
| publicdum | 1.940347 | 1.2204 | 1.59 | 0.112 | 4515941 | 4.332287 |
| tradebusdum | 3.006338 | 1.114233 | 2.70 | 0.007 | .822481 | 5.190196 |
| fiscalperce~3 | 5.137724 | 1.552961 | 3.31 | 0.001 | 2.093977 | 8.181471 |
| legalpercent3 | -2.396574 | 3.475015 | -0.69 | 0.490 | -9.207479 | 4.414331 |
| techpercent3 | 2.848664 | 1.231711 | 2.31 | 0.021 | .4345544 | 5.262774 |
| numberrecs3 | .3269884 | .0878453 | 3.72 | 0.000 | .1548148 | .499162 |
| pgcntt3 | .0007523 | .0045413 | 0.17 | 0.868 | 0081485 | .0096531 |
| _cons | -7.140291 | 1.54804 | -4.61 | 0.000 | -10.17439 | -4.106187 |

Table 25. Summary Analysis of Tailoring Rule Bivariate Regression Results (statistically significant results in bold)

| Variable | Variable | Intercept | Coefficient | Probability | P – | Pseudo |
|--------------|-------------------------|-----------|-------------|-------------|-------|---------|
| Category | | _ | | of Change | value | R- |
| | | | | | | squared |
| Organization | State Government | -1.22 | 1.57 | 380% | 0.000 | 0.0633 |
| Type | Interest | | | | | |
| Organization | Environmental | -0.81 | -2.08 | -87% | 0.005 | 0.0299 |
| Type | Interest | | | | | |
| Organization | Business Interest | -0.76 | 24 | -21% | 0.302 | 0.0022 |
| Type | | | | | | |
| Location | Washington D.C. | -1.65 | .647 | 91% | 0.005 | 0.0124 |
| Comment | Page Count | -1.34 | .039 | 4% | 0.000 | 0.0415 |
| Length | | | | | | |
| Comment | Number of | -2.87 | .612 | 84% | 0.000 | 0.2174 |
| Content | Recommendations | | | | | |
| Comment | Technical | -2.01 | 4.36 | 7700% | 0.000 | 0.1390 |
| Content | Arguments | | | | | |
| Comment | Legal Arguments | -1.10 | 0.68 | 97% | 0.128 | 0.0047 |
| Content | | | | | | |
| Comment | Fiscal Arguments | -0.54 | -2.74 | -94% | 0.000 | 0.0293 |
| Content | | | | | | |
| Comment | Policy Arguments | 0.05 | -3.42 | -97% | 0.000 | 0.0926 |
| Content | | | | | | |
| Comment | Other Arguments | 95 | 0.71 | 103% | 0.438 | 0.0012 |
| Content | | | | | | |

Table 26. Summary Results from Oil and Gas Rule Bivariate Logistic Regressions (statistically significant findings in bold)

| Variable | Variable | Intercept | Coefficient | Probability | P – | Peusdo |
|--------------|--------------------------|-----------|-------------|-------------|-------|---------|
| Category | | 1 | | of Change | value | R- |
| | | | | | | squared |
| Organization | State Government | 62 | .34 | 40% | 0.476 | 0.0022 |
| Type | Interest | | | | | |
| Organization | Environmental | 39 | 66 | -48% | 0.069 | 0.0153 |
| Type | Interest | | | | | |
| Organization | Business Interest | -1.0 | .86 | 136% | 0.009 | 0.0316 |
| Type | | | | | | |
| Location | Washington D.C. | -0.61 | .208 | 23% | 0.639 | 0.0010 |
| Comment | Page Count | -1.69 | 0.08 | 8% | 0.000 | 0.2539 |
| Length | | | | | | |
| Comment | Number of | -3.48 | 0.29 | 34% | 0.000 | 0.3868 |
| Content | Recommendations | | | | | |
| Comment | Technical | -2.4 | 0.04 | 4% | 0.000 | 0.1815 |
| Content | Arguments | | | | | |
| Comment | Legal Arguments | -0.92 | 0.09 | 9% | 0.000 | 0.0737 |
| Content | | | | | | |
| Comment | Fiscal Arguments | -0.75 | 0.02 | 2% | 0.147 | 0.009 |
| Content | | | | | | |
| Comment | Policy Arguments | 0.56 | -0.05 | -5% | 0.000 | 0.1622 |
| Content | | | | | | |
| Comment | Other Arguments | 1.83 | -0.11 | -10% | 0.002 | 0.4897 |
| Content | | | | | | |

Table 27. Summary Results from 2012 CAFE Standard Rule Bivariate Logistic Regressions (statistically significant findings in bold)

| Variable | Variable | Intercept | Coefficient | Probability | P – | Peusdo |
|-----------------------|--------------------------|---------------|-------------|-------------|-------|---------|
| Category | | _ | | of Change | value | R- |
| | | | | | | squared |
| Organization | State Government | 96 | 29 | -25% | 0.724 | 0.0007 |
| Type | Interest | | | | | |
| Organization | Environmental | 89 | 72 | -51% | 0.211 | 0.0093 |
| Type | Interest | | | | | |
| Ouganization | D | 1.0 | 1.35 | 286% | 0.002 | 0.0603 |
| Organization | Business Interest | -1.9 | 1.35 | 20070 | 0.002 | 0.0003 |
| Type | Business Interest | -1.9 | 1.35 | 200% | 0.002 | 0.0003 |
| O | Washington D.C. | -1.9 -1.10 | .305 | 36% | 0.002 | 0.0038 |
| Type | | | | | | |
| Type Location | Washington D.C. | -1.10 | .305 | 36% | 0.397 | 0.0038 |
| Type Location Comment | Washington D.C. | -1.10 | .305 | 36% | 0.397 | 0.0038 |

| Comment | Technical | -2.25 | 2.50 | 1118% | 0.000 | 0.1064 |
|---------|-------------------------|-------|-------|-------|-------|--------|
| Content | Arguments | | | | | |
| Comment | Legal Arguments | -0.94 | -2.23 | -89% | 0.330 | 0.0066 |
| Content | | | | | | |
| Comment | Fiscal Arguments | -1.04 | 0.33 | 39% | 0.676 | 0.0009 |
| Content | | | | | | |
| Comment | Policy Arguments | 0.11 | -3.88 | -97% | 0.000 | 0.1270 |
| Content | | | | | | |
| Comment | Other Arguments | -1.06 | 6.12 | 4539% | 0.000 | 0.0106 |
| Content | | | | | | |

Appendix E

Pre-proposal Framing Code Book

| | | Codebook |
|------|--------------|---|
| Fran | | |
| | Subframes | Example Language/Codes |
| | | "I'm an environmentalist" |
| Iden | titv | "I'm a rancher" |
| | | "Business interests are anti-regulation, anti-environment" |
| | | |
| | acterization | "Environmentalists are not willing to work with us" |
| Cont | | |
| Man | agement | "We should not deal with this problem it is too complex" |
| | | we should not dear with this problem it is too complex |
| | Avoidance | "We should use our resources elsewhere" |
| | | "After settling on the target we tried to back it up with data and produced |
| | | some technical analysis to support our argument." |
| | | |
| | | "So we wanted this third party analysis going on in parallel with the EPA |
| | | work. We wanted to look at alternatives available and compare them" |
| | | "we might have a generic idea, and we got to our technical person who able to |
| | | drill down and say this could work here, but not here" |
| | | |
| | | "look we did some modeling and showed that to the EPA regarding |
| | Fact | compliance options" |
| | Finding | "data is critical you have to have hard data to back up any argument" |
| | Tinding | "Here is an idea, can we get technical advice, does this make sense?" |
| | Joint | |
| | problem | "the agency would come with specific questions and we would work together |
| | solving | to find the answers" |
| | | "we have been working on fuel economy standards for a long time so we have |
| | | experience in this space" |
| | | "we give presentations about this really technical conferencesEPA conveys |
| | | information at these conferences and so do we" |
| | | |
| | Expertise | "we come with sound science and data to be taken seriously" |
| | Adjudicati | |
| | on | "the courts should solve this" |
| | appeal to | "Congress should be making these standards" |
| | political | |

| "If the public wants these standards they should vote for them" |
|---|
| "let the market decide who the winners are don't try to steer the market, let |
| the market steer itself" |
| "the only way to solve this issue is through a fight" |
| |
| "civil disobedience is necessary to get something done" |
| "the public needs to stop this action" |
| |
| "we need to boycott these companies" |
| "it all boils down to" |
| "the problem is" |
| "we wanted the agency to address" |
| "people should help others" |
| r · · · · · · · · · · · · · · · · · · · |
| "People should have ownership over solving the problem |
| , <u> </u> |
| "they had the authority to act on this" |
| y/ |
| "they were in a position to make a decision" |
| "we are a small organization we are very strategic with where we put our |
| resources" |
| |
| "we are always out spent, but we address very narrow issues" |
| "they have the technical staff to produce hundred page reports on this" |
| "we hired technical staff to address this policy area" |
| "they first came to us asking how many facilities this would be, and what kinds." |
| "his personal style was important he got along with people and that was important" |
| "I got yelled at by the agency for giving an interview on this topic, but we were disappointed so I spoke out" |
| "the agency doesn't like me but they were stunned by my conclusions" |
| "we have a long working relationship with offices" |
| "she was the person to be chief cat herder on this" |
| "a community of groups work on this collaboratively" |
| "depends how the community comes together and what our position is, we try to send one voice to the agency on issues" |
| |

| | | "we all seemed pretty aligned on what we thought needed to happen" |
|------|------------|--|
| | | "they were the victim here, they got more attention" |
| | Sympathy | "we have people that get bloody noses from these emissions and that translates politically" |
| | Sympathy | "they coerced us to move in one direction" |
| | | |
| | Force | "they pushed us into a corner and we had to act in their favor" |
| | | "we had the moral high ground, people listened" |
| | Moral | "we have an obligation to protect the environment" |
| | Wiorui | "we didn't have access or voice to influence the decision" |
| | | |
| | Voice | "we go to the media as much as possible" |
| | | "They have done their job which was to get vehicle manufacturers to produce vehicles in a certain way. There is a risk of people not buying what you are making" |
| | | "this may be good for the environment, but it influences our economic viability" |
| Risk | Perception | "higher costs could risk job losses because of the economics of drilling" |
| | | "the rule shows that efficiency savings value and its benefits, tremendous benefits, are far higher than costs" |
| | | "we argue agency undervalues benefits and overvalues costs" |
| | | "They measure benefits of reduced asthma attacks and monetize those benefits. But people recognize that these rules have economic costs, you have other impacts that are not understood or noticed by the EPA" |
| Loss | vs gain | "not only are you saving gas, you are saving the industry money. There is no reason not to do these things" |
| | | "It was good to have court pressure on this" |
| | | "They know how to write a rule, especially for a tech rule like this. They paper the hell out of it, and so threats of legal challenge do not mean much" |
| | | "we kicked into overdrive trying to argue there was authority and almost a mandate to do it." |
| | | "you need to take action to avoid legal challenges" |
| Lega | ıl | "I thought they were crazy for deviating from statute, but it wasn't worth jumping up and down for" |

| | "there are real health impacts and these need to be highlighted and addressed in the rule" |
|---------------|---|
| Public Health | "if I can show there is no health risk, why should I have to spend millions for no benefit" |

Appendix F

Tailoring Rule Public Comment Code Book

| Argument | Example Codes |
|-----------|---|
| Policy | "To be clear, IDFA does not oppose reasoned and appropriate regulation of greenhouse gas emissions and we support efforts that will enhance energy efficiencies, reduce air pollution and reduce our nation's reliance upon foreign energy. IDFA, however, does not believe that the Clean Air Act is the appropriate vehicle for regulation of greenhouse gases." <i>International Dairy Foods Association</i> |
| Technical | "Furthermore, recent research published in <i>Science</i> by a team of Columbia and NASA scientists has found that, when aerosol effects are included, the 100 year GWP for methane is 34, 62% higher than the value reported by IPCC in 1995.6 Using outdated factors strictly for consistency with a soon-to-expire international agreement to which the United States is not even a party results in incorrect emissions projections." <i>Covanta Energy</i> |
| Fiscal | "American Refining Group, for example, would be paying an annual fee in excess of \$200,000." <i>Ad Hoc Coalition of Small Business Refiners</i> |
| Legal | "Recognizing that its Tailoring Rule Proposal is incompatible with the statutory emission rate thresholds set by Congress for applicability of the PSD and Title V programs, EPA incorrectly argues that it may ignore the Clean Air Act's statutory emission rates thresholds in the case of GHG emissions under either the absurd results or administrative necessity doctrines." <i>Center for the Rule of Law</i> |
| Other | "SIGMA represents approximately 270 independent chain retailers and marketers of motor fuel. SIGMA members represent significant diversity within the industry. While 92 percent are involved in gasoline retailing, 66 percent are involved in wholesaling, 36 percent transport product, 25 percent have bulk plant operations, and 15 percent operate terminals." Society of Independent gasoline Marketers of America |

Oil and Gas Public Comment Code Book

| Argument | Example Codes |
|-----------|---|
| Policy | "The BCWA supports the EPA's attempt to maximize the economic |
| | potential of natural gas production while safeguarding public health and |
| | protecting the environment." Buffalo Creek Watershed Association |
| Technical | "DAQ proposes an additional control device option for storage vessels |
| | subject to the requirements of § 60.5395 DAQ has observed a different |
| | type of vapor recovery device in operation, which is sometimes referred to |
| | as an ejector vapor recovery unit. This ejector vapor recovery unit recycles |
| | the vapor space in the condensate and crude oil storage vessels back into the |
| | gas gathering line with a closed vent system. The ejector vapor recovery |
| | unit should easily meet the 95 percent emission reduction requirement (100 |
| | percent when in use), but the percent emission reduction performance testing requirement is problematic" West Virginia Department of |
| | Environmental Protection |
| Fiscal | "Page 211 also states, "The total annualized costs for complying with the |
| Tiscai | proposed standard is 0.033 percent of the total revenue, which is also very |
| | low". The 0.033 percent is very low, by most standards; but is not a realistic |
| | estimate of the compliance cost for this proposed regulation. Using this |
| | percentage for an oil production company with an annual revenue of \$50 |
| | million will result in annual compliance cost of \$16,500 (\$50 million x |
| | 0.033 percent). Our compliance cost for a single well will greatly exceed |
| | \$16,500." Countrymark Energy Resources, LLC |
| Legal | "Where it is "not feasible to prescribe or enforce a standard of |
| | performance," EPA must instead "promulgate a design, equipment, work |
| | practice, or operational standard, or combination thereof, which reflects the |
| | best technological system of continuous emission reduction" which is |
| | adequately demonstrated. 42 U.S.C. § 7411(h)(1). The Act defines the |
| | circumstances in which it is "not feasible" to set a standard of performance, |
| | including where "a pollutant or pollutants cannot be emitted through a conveyance" capable of capturing such pollutants or where "the application |
| | of measurement methodology to a particular class of sources is not |
| | practicable due to technological or economic limitations." Id. § 7411(h)(2)." |
| | Clean Air Task Force et al. |
| Other | "In previously pristine parts of Wyoming andThis past winter, a monitor |
| | in the Uintah basin in Utah recorded a maximum eight-hour average ozone |
| | level of 139 parts per billion, which is nearly twice the federal standard |
| | Numerous studies have demonstrated oil and gas activities contribute to |
| | hazardous air pollution which causes cancer and other serious health impacts. |
| | High levels of benzene and other hazardous air pollutants have been detected at |
| | locations in Texas and Colorado, prompting an outcry for better pollution |
| | standards from citizens living near oil and gas fields concerned for their health |
| | and the health of their children, livestock and wildlife." <i>Argyle-Bartonville</i> |
| | Community Alliance et al. |

2012 CAFE Standards Rule Public Comment Code Book

| Argument | Example Codes |
|-----------|--|
| Policy | "We agree with the goal of the GHG rulemaking as regards SVMs, as |
| | explained by EPA" Aston Marton et al. |
| Technical | "Guardian offers the following specific comments regading the proposed |
| | AC17 cycle: the solar soak period time should be increased from 30 minutes |
| | to 40-45 minutes. Thermal modeling of various passenger vehicles with |
| | RadTherm software demonstrates that at 30 minutes there is still in many |
| | cases a fairly steep slope of cabin temperature increase. This slope tends to |
| | taper only after about 45 minutes." Guardian Automotive Products, Inc. |
| Fiscal | "We also find that the standard will impose additional net social externality |
| | costs of more than \$900 per vehicle versus an agency net cost estimate of |
| | \$100 per vehicle. We estimate the sum of net private and social welfare |
| | costs to be more than \$3,800 per vehicle. This compares to the agencies' |
| | estimate of \$4,100 in net private and social <i>benefits</i> per vehicle. We find |
| | that the fuel economy standards are extremely regressive, imposing markedly disproportionate costs on the group of lowest-income |
| | households relative to those imposed on the highest-income households." |
| | Defour Group, LLC |
| Legal | "Given these congressional mandates and judicial interpretations, EPA must |
| | ensure that both the public and reviewing courts are provided reasonable |
| | opportunities to determine the extent to which EPA has complied, or not |
| | complied, with the procedural requirements of 42 U.S.C. § 7607(d). |
| | Because a regulatory preamble is the mechanism by which administrative |
| | agencies detail the reasons supporting, the bases of, and the procedures |
| | followed in promulgating a regulation, it is imperative for EPA to set forth |
| | clearly in the preamble to the final LDVR II rules the precise manner in which |
| | EPA has (or has not) complied with the procedural requirements of 42 U.S.C. § |
| | 7607(d)." Pacific Legal Foundation |
| Other | "The American Forest & Paper Association is the national trade association |
| | of the forest products industry, representing pulp, paper, packaging and |
| | wood products manufacturers, and forest landowners. Our companies make |
| | products essential for everyday life from renewable and recyclable |
| | resources that sustain the environment. The forest products industry |
| | accounts for approximately 5 percent of the total U.S. manufacturing GDP." |
| | American Forest & Paper Association |