Regulation & Governance (2018) 12, 299-313

Regulatory Analysis Procedures and Political Influence on Bureaucratic Policymaking

Neal D. Woods*

Department of Political Science, University of South Carolina, Columbia, SC, USA

Abstract

Well-known theories suggest that administrative procedures may be used as mechanisms of political control of the bureaucracy. This study investigates whether three common regulatory analysis procedures—cost-benefit analysis, risk assessment, and economic impact analysis—lead to greater influence by political officials on bureaucratic policymaking. Multivariate analyses of data from a unique survey of state administrators indicate that regulatory analysis requirements are associated with decreases in the perceived influence of elected political officials on the content of administrative rules. This association is particularly evident in cases where proposed rules are subjected to a cost—benefit test. These findings contradict prominent theories of administrative procedures, but are consistent with recent research on the political power of administrative agencies.

Keywords: administrative procedures, cost-benefit analysis, political control of the bureaucracy, regulatory analysis, rulemaking.

1. Introduction

Under the auspices of "regulatory reform" or "smart regulation," a significant political movement has emerged in the United States (US) and Western Europe advocating changes in regulatory processes. The would-be reformers' agenda includes simplifying the administrative rulemaking process, broadening regulatory oversight, and assessing the economic impact of bureaucratic rules and regulations. Although some proponents of these changes seek a reduction in the regulatory burdens imposed on industry, the goal of this movement is most commonly articulated not as deregulation but as increased regulatory quality – greater efficiency, consistency, accountability, and transparency in the making of government rules and regulations (Anderson 1998; Dunlop *et al.* 2012).

A central objective of this movement is to make proposed regulations subject to careful analysis to determine their potential impact on the economy. The US has long embraced this goal; the Unfunded Mandates Reform Act of 1995 requires agencies to perform an economic analysis of major regulations, and every president since Ronald Reagan has employed the Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget to review rules promulgated by executive branch agencies (Ellig *et al.* 2013). Yet the push for a broadening and deepening of regulatory reform continues. At the time of this writing, for instance, Congress is considering the Regulatory Accountability Act. Among other items, the act would require that all major proposed federal regulations be required to undergo a cost–benefit analysis. This bill is one of several Congress is considering that would expand the use of regulatory analysis procedures in the rulemaking process, and it follows in a long line of recent congressional attempts to do so. Similarly, many American states have recently implemented or are considering measures that would introduce or strengthen regulatory analysis requirements (Schwartz 2010).

These measures are controversial. Supporters of policy analysis procedures cite regulations that are excessively costly or burdensome as evidence of the need for regulatory reform, and argue that broader implementation of these analysis techniques will make administrative rulemaking more rational and efficient (Hahn 2004; Adler & Posner

Correspondence: Neal D. Woods, Department of Political Science, University of South Carolina, Columbia, SC 29208, USA. Email: neal.woods@sc.edu

Accepted for publication 24 September 2016.

¹The specifics of these analytical procedures vary, as discussed later in the paper. Together, these procedures are referred to variously as "regulatory analysis," "policy analysis," and "economic analysis," among other things. These terms are used interchangeably here.

²The act defines a major rule as one with direct costs of more than US\$100 million or indirect costs of more than US\$1 billion. This requirement would extend to independent commissions, which are not currently required to produce such analyses. The act would also require agencies to issue an Advance Notice of Proposed Rulemaking for high impact rules, hold hearings for high impact rules, and strengthen judicial oversight of the rulemaking process.

2006). Critics, on the other hand, have argued that these mechanisms undervalue the benefits of many policies (Ackerman & Heinzerling 2004) and point out that the increased costs associated with preparing a detailed economic analysis and the delay caused by these additional procedural burdens may outweigh any benefits (McGarity 1991).³ Whatever the efficiency gains may be in any particular case, many observers have questioned whether the aggregate societal benefits are worth the additional costs associated with widespread adoption of regulatory analysis requirements (see Shapiro 2008 for an overview of this debate). Thus, some analysts find the recent push to greatly expand the required use of such procedures to be somewhat puzzling (Posner 2001a).

One possible answer to this puzzle is that regulatory reforms are not primarily instituted for the purpose of achieving increased rationality or economic efficiency. Rather, a primary goal – some would argue *the* primary goal – of regulatory analysis requirements is to make the administrative state more responsive to political preferences. By structuring administrative decision processes in ways that constrain bureaucratic policymaking and/or by providing greater information to political officials about the consequences of proposed agency actions, the argument goes, these processes allow political officials much greater latitude to shape agency behavior in ways that are consistent with their policy preferences. As Posner bluntly states: "The purpose of requiring agencies to perform cost-benefit analysis is not to ensure that regulations are efficient; it is to ensure that elected officials maintain power over agency regulation" (2001a, p. 4).

Do regulatory analysis requirements lead to the greater influence of political officials on agency rulemaking? To date, this question has largely escaped systematic empirical scrutiny. Using data from a unique survey of American state administrators, this study employs multivariate models to address this question for three common procedural requirements – cost–benefit analysis, risk assessment, and economic impact analysis – across a wide variety of administrative agencies in the American states. The analyses suggest that regulatory analysis requirements are not only ineffective as mechanisms of political control, but they may actually *decrease* the influence of external political actors in both branches of government. Although these findings contradict prominent theories of administrative procedures, they are consistent with recent research on the political power of administrative agencies.

2. Regulatory analysis procedures and political influence: Contending perspectives

A cross-disciplinary literature in political science, economics, and law argues that political officials employ regulatory analysis requirements as a means of monitoring and influencing agency policy choices. Often expressed in the language of principal—agent theory, these works suggest that political officials (principals) face problems arising from asymmetric information when delegating policymaking authority to administrative agencies (agents) who may use their informational advantage to pursue policies that deviate from the goals of elected officials. This literature views regulatory analysis procedures as a (partial) solution to these problems.

2.1. Regulatory analysis procedures as instruments of political control

Existing literature proposes two distinct mechanisms by which requiring that agencies conduct economic analyses of proposed regulations could lead to greater political influence over agency rulemaking. The first approach views policy analysis as a mechanism of ex ante political control. Ex-ante controls are legal constraints that politicians place on how agencies develop and implement policies. The theory of ex ante controls suggests that politicians use administrative procedures to "hardwire" agency decisionmaking so that the agency's future decisions reflect the preferences of the political coalition enacting the procedures (McCubbins *et al.* 1987, 1989; Moe 1989). By requiring that agencies follow procedures that constrain agency decisions in a manner that reflects political actors' policy preferences, politicians ensure that future bureaucratic actions will be more congruent with their intent (Bawn 1995; Potoski 1999; de Figueiredo Jr & Vanden Bergh 2004; Wood & Bohte 2004). Procedures are thus used "to enfranchise important constituents in the agency's decision-making, assuring that agencies are responsive to their interest" (McCubbins *et al.* 1987, p. 244). For example, if an agency is required to perform an economic impact analysis for a proposed environmental regulation it may pay greater attention to the regulation's economic costs than it otherwise would, thus

³Some advocates of these reformed processes may be seeking delays in the introduction of new regulations for free-market ideological reasons (Shapiro 2008). For these reformers the "cost" of regulatory delay may in fact be a "benefit" of reformed procedures.

decreasing the probability that the regulation will be promulgated (Potoski & Woods 2001). Thus, regulatory analysis procedures should enhance the influence of the external political actors over agency policymaking.

A second theoretical perspective asserts that regulatory analysis may be used more explicitly as a way to reduce the information asymmetry that exists between political officials and administrative agencies (Posner 2001a,b; Tiller 2002; Adler & Posner 2006). This argument suggests that regulatory analysis procedures are imposed because they give political officials a clearer sense of whether agencies are proposing something that is consistent with their policy preferences. As Posner states:

A simple way of understanding how cost–benefit analysis changes the relationship between principals and agencies is to imagine that it converts a relationship of asymmetric information to one of full information. Without cost–benefit analysis, the principals are not at a complete loss, because they can infer that certain projects benefit or harm them; but they will refuse to consent to other projects that may or may not make them worse off. With cost–benefit analysis the principals now can accept or reject the project on the basis of direct observation of its consistency with their interests. (2001a, p. 1143).

Although these mechanisms are analytically distinct, the scholarly literature is in both cases rooted in the "structure and process" view of political control of the bureaucracy, which views administrative procedures as instruments employed by political officials to reduce principal-agent slack (McCubbins & Schwartz 1984; McCubbins 1985; McCubbins *et al.* 1987, 1989). Moreover, these approaches are not mutually exclusive, and regulatory analysis procedures may, in principle, be employed effectively both to reduce information asymmetries and to hardwire agency decisionmaking (Radaelli & De Francesco 2010).

2.2. Regulatory analysis procedures as sources of bureaucratic autonomy

Rather than providing "full information" for political officials, however, it could be argued that agencies are likely to retain a significant information asymmetry when they produce the analyses that are used in decisionmaking. Changes in the technical details buried deep in these analyses can often have a significant effect on their results (Morgenstern 1997; Ackerman & Heinzerling 2004). Those with the technical and substantive expertise necessary to understand these details thus will often have a significant advantage over political officials (and their staff). In fact, it is possible that instead of reducing the information asymmetry, the requirement that agencies produce technical analyses may *exacerbate* it. Knowledge of the costs and benefits of particular policies, and the ability to manipulate this information, has long been considered a lynchpin of information asymmetry at the heart of the principal—agent relationship (Bendor *et al.* 1987). As one observer notes: "the informational advantages that agencies have with regulation generally also apply to cost-benefit analysis" (Livermore 2014, p. 619).

Providing policy analytic information to policymakers may also provide agency officials a means to more persuasively argue for their preferred policies. Ongoing interactions – both formal and informal – between administrators and legislative and executive branch officials may give agencies "conceptual power" – the power to shape concepts, vocabularies, and methods of analysis used to describe policy problems (Carpenter 2010). Agencies use this power and other resources at their disposal to influence the policymaking activities of elected officials (Krause 1999; Miller 2004; May *et al.* 2009; O'Leary 2014). Giving administrators the task of coming up with an analytical justification for the policies they are pursuing may increase their influence. In part this is a function of the greater precision and clarity with which policy-relevant information is being transmitted from administrative agencies to political officials, and in part it is a function of the increased agency analytical capacity necessary to generate this information. Recent research suggests that agencies with greater management capacity (in areas such as financial and human resource management and information technology) exert systematically greater influence in legislatures (Jennings & Woods 2007; Nicholson-Crotty & Miller 2012). Enhanced policy analytic capacity may similarly translate into more administrative influence.

Several federal regulatory agencies have made substantial investments in analytic capacity in order to prepare regulatory impact analyses for OIRA review. Livermore (2014) argues that these investments have helped preserve agency decisionmaking autonomy in the face of political oversight. For instance, he observes that economists supported by the Environmental Protection Agency have played a major role in developing and promoting methodologies for determining the value of a statistical life and valuing non-mortality benefits that serve to increase the net benefits of environmental regulation, thus advancing the agency's regulatory objectives.

Livermore argues that promulgating regulatory analyses has enabled agencies to enhance their power at the expense of political oversight, even at the US federal level, with its strong centralized OIRA review. If so, one would expect regulatory analysis to be even more effective at increasing agency autonomy in the American states. Many states do not have centralized review of agency regulations, and those that do often lack the analytical capability to delve into the mechanics of the analysis itself.⁴ In commenting on this fact, Hahn observes that "[t]hese offices do not... necessarily review the agency's analysis. Agencies may therefore omit vital information from their analyses, make unnecessary mistakes, and overstate the benefits of a rule if it will help them achieve their political objectives (2000, p. 883)."

The information and capacity advantages that agencies have may thus give them the ability to manipulate analyses in ways that promote their agendas. Even proponents of cost–benefit analysis have long been concerned about this issue, noting that as agencies may make methodological choices that enable them to "rationalize decisions made on other grounds" (Adler & Posner 1999, p. 172).

Consider the Federal Aviation Administration's (FAAs) 2005 analyses of whether it should fund expansion of O'Hare International Airport in Chicago. The project had several politically important beneficiaries, including the city of Chicago and its mayor, Richard Daley. It was also congruent with the FAA's organizational culture, which favors infrastructure projects as solutions to airport congestion rather than changes in operating procedures, such as demand management (Haveman 2007). The project thus had fairly substantial tailwinds, and, as Haveman notes: "analytic principles are a weak reed in the face of political pressures and perceptions of agency purpose... The drive to produce positive net benefits easily overwhelms any motivation for consistency and sound evaluation" (2007, p. 197).

Two cost–benefit analyses were produced, the first based on a "reduction in delay costs" framework, and – after observers pointed out several problems with that analysis –a second employing a totally different "consumer surplus" rationale.⁵ Haveman (2007) points out several deviations from accepted cost–benefit practice in both analyses, in ways that overstate the net benefits of the project. He concludes:

[N]either study provides an estimate of net national benefits that meets minimal accepted professional standards. In my view the process is a classic illustration of an administrative "bob and weave"—if strategy one fails to yield a convincing estimate of net positive benefits, just turn to a totally different justification and see if it flies (2007, pp. 185–86).

In further evaluating these analyses, Haveman observes that "[n]o real attention was paid to analyzing the benefits and costs of demand management (and a wide range of other alternatives) and comparing the results to the benefits and costs of the proposed O'Hare expansion" (2007, p. 197). The example thus also illustrates how agencies may use their power to define the scope of available alternatives in ways that advantage particular policy options. As Livermore states:

If agency personnel do not include nonobvious alternatives in the regulatory impact analysis these alternatives may not become known... and even when known alternatives exist, it is difficult, though not impossible, to force an agency to consider a major alteration of its initial option set (2014, p. 635).

In light of issues such as these, one may wonder why elected officials would impose policies that may weaken their control over agency actions. One obvious possibility is that politicians themselves may not be aware of the effect of regulatory analysis procedures on political control. Such a lack of knowledge should not be surprising; it is hard to foresee the consequences of regulatory procedure, and the reform actions taken by political officials often have unintended consequences on regulation (Harris & Milkis 1996; Spence 1997). Perhaps relatedly, regulatory analysis procedures are used for many purposes, such that legislators may not be viewing them primarily as a solution to issues of bureaucratic responsiveness, but may be focused on pursuing other goals. Schwartz observes:

States may also have different motivations for requiring economic analysis: they may want to improve efficiency, enhance the quality of public debate, minimize regulatory burdens, or ensure legislative intent. Especially with limited resources, it may be impossible to pursue all these aims at once (2010, p. 22).

302

⁴While several states have some form of oversight entity (generally a legislative committee) tasked with overseeing administrative rulemaking, these entities generally focus on issues pertaining to the legality of the rule, such as adherence to proper procedure and congruence with statutory authority (Hahn 2000; Schwartz 2010).

⁵These analyses were produced by the city of Chicago, but used by the FAA to justify providing federal funds for the project (Haveman 2007).

The primacy of other considerations may lead political officials to impose these procedures even at the cost of some principal–agent slippage (Radaelli & De Francesco 2010).

In addition, Shapiro and Borie-Holtz observe that analysis requirements provide political officials with an opportunity to show constituents and contributors that they are taking action to reduce regulatory burdens. Politicians may thus impose these requirements as a result of their perceived electoral benefits.⁶ Shapiro and Borie-Holtz state:

Regulatory reforms are all sold as ways to 'fix' regulation... these have undeniable rhetorical appeal and may assuage the constituency dissatisfied with the regulations. If we see legislators as 'credit claiming' and 'blame avoiding'... regulatory reform fits nicely in this vision (2013, p. 104).

The effect of requiring that agencies conduct regulatory analyses in support of proposed rules is thus uncertain a priori. While prominent theories of administrative procedures argue that that political officials use them to increase their influence on agency decisionmaking, research on the political power of administrative agencies suggests that these requirements may not function as the theories suggest.

2.3. Evaluating the effects of regulatory analysis procedures

The utility of procedural controls as a mechanism for political influence is a matter of some dispute. Although some statistical analyses of agency behavior have found that procedural requirements are correlated with increased political influence (Potoski & Woods 2001; Woods & Baranowski 2007; Woods 2009) and may affect policy outcomes (Woods 2015) others have found such effects to be temporary, limited, or nonexistent (Spence 1999a; Hedge & Johnson 2002; Shapiro & Borie-Holtz 2013). Case studies suggest that the latter result may occur because agencies adapt to the procedural requirements in ways that serve to minimize their policy effects. Looking at procedural requirements imposed by Congress and the courts on the Federal Energy Regulatory Commission, for instance, Spence (1999b) finds that the agency was able to narrowly construe new requirements and to use the substantive discretion it retained to mitigate any substantive effects that the requirements might otherwise have had. Shapiro (2002) likewise finds that the rulemaking decisions of childcare regulators in eight states were largely unconstrained by procedural requirements. With regard to regulatory analysis procedures specifically, he could not identify a single case in which a regulatory provision was altered because of a cost–benefit or fiscal impact analysis.

Thus, the limited existing evidence on both administrative procedures generally and regulatory analysis procedures specifically may be characterized as mixed. The question of whether these administrative procedures lead to increased political oversight of agencies has been characterized as one of the central remaining questions in administrative rulemaking and regulation (Shapiro 2008; Radaelli & De Francesco 2010). This study evaluates this relationship using an empirical analysis of regulatory analysis requirements in the American states.

3. Regulatory analysis procedures in the American states

Many American states have imposed procedural requirements on the rulemaking process in order to make it more rational, to make regulators more accountable to political officials, and to make regulations less costly or burdensome. In general, most of these processes fall under three broad categories: risk assessment, cost—benefit analysis, and economic impact analysis. Risk assessment evaluates the extent of environmental, health, or safety risk of the regulation based on the best available science. Cost—benefit analysis compares the benefits of a policy to the costs it imposes on society. Economic impact analysis assesses how the direct costs and benefits of a regulation affect the local or regional economy, although some states may only require examination of budgetary impacts.

In general, these requirements are imposed via legislation, most commonly in state administrative procedure acts (APAs). The earliest state APAs were instituted prior to the federal Administrative Procedure Act of 1946, but a large number of APAs were enacted during the 1970s and 1980s. Many existing APAs were amended during this period as

⁶Separation of power arguments have also been advanced as a possible explanation. Livermore (2014), for instance, argues that OIRA review of agency-driven cost-benefit analysis requirements may have been the result of accommodation between the interests of presidents (seeking to enhance executive authority vis-à-vis Congress) and agencies (seeking relative autonomy from political control).

In practice these goals may at times come into conflict (see West 1984).

⁸Although cost–benefit analysis typically incorporates societal costs and benefits, some states have employed the term to refer to analyses that examine only governmental costs. As Hahn notes: "In Connecticut, for example, agencies use benefit–cost analysis to develop regulations without considering private-sector impacts, an egregious error because of the potentially large neglected costs" (2000, p. 877).

well (Bonfield 1986). Reflecting an interest in regulatory reform that began percolating in the 1970s (Anderson 1998), the 1981 Model State Administrative Procedure Act, produced by the National Conference of Commissioners on Uniform State Laws, contained a requirement for an economic analysis of rules (Schwartz 2010). As states subsequently promulgated or revised their APAs, many adopted similar provisions.

Some states have imposed regulatory analysis requirements via other legislation. Typical of this approach is North Carolina's general statutory requirement, imposed in 1995, which requires agencies to conduct a cost–benefit analysis of any proposed rule with greater than a five million dollar "aggregate financial impact on all persons affected" (Whisnant & DeWitt Cherry 1996, p. 698). Other states have augmented or clarified the APA requirements in other statutes, or, in rarer cases, imposed additional statutory requirements on particular agencies (Schwartz 2010). Governors also issue executive orders pertaining to regulatory analysis, but they are primarily used to augment regulatory analysis procedures imposed separately in statute (Hahn 2000). This is usually done either by imposing additional analytical requirements or by instituting executive branch oversight.

With the encouragement of organizations such as the National Governors Association, there has been an accelerated movement in recent years among the American states toward imposing these requirements on the rulemaking process. Indeed, by 2010 almost all states had imposed some or all of these analysis procedures on state agencies (Schwartz 2010). The widespread adoption of these procedural requirements is somewhat problematic for comparative state analysis, because relative uniformity in state requirements does not provide us with the analytical leverage necessary to estimate their effects. This study uses survey data from the year 2000, a time when larger variation across states in the use of these procedures provides greater opportunity to discern their effects. Table 1 shows the extent of state adoption of these mechanisms at that time. The state adoption of these mechanisms at that time.

On the whole, states tend to require agencies to analyze the economic impact of rules, but are less inclined to require more rigorous forms of analysis, such as risk assessment or cost–benefit analysis. ¹² At the time these data were collected, for instance, 10 states required that all proposed rules be subjected to a cost–benefit test, and 11 more required it for selected rules. ¹³ Only four states required a risk assessment for all rules, with another four requiring it in some cases. ¹⁴ The scope and required rigor of these analyses may also vary considerably. In some states, the analyses are limited to exploring the effects on small business (a form of economic impact analysis often called "regulatory flexibility analysis"), while other states mandate a full cost–benefit analysis of all proposed rules. ¹⁵ In some cases, analytical requirements consist merely of vague instructions for agencies to consider the costs when drafting administrative rules. ¹⁶ In others, agencies are given detailed guidelines regarding how direct and indirect costs and benefits are to be treated in their analysis.

4. Data and method

The analyses investigate whether regulatory analysis procedures shape the influence that political officials are perceived to have on agency performance. The dependent variables are the levels of influence that state legislatures, governors, and the promulgating agencies themselves have on agency rulemaking, as reported by state administrators. The independent variables reflect the analysis requirements imposed on agencies, as well as controls for other important political, institutional, and policy characteristics.

⁹While the latter could in principle involve a thorough review of the regulatory analysis (such as that conducted by OIRA at the federal level), most states confine their review to consistency with existing law and congruence with the governor's policy agenda (Hahn 2000; Schwartz 2010).

¹²While a cost–benefit analysis is often a required component of an economic impact analysis at the US federal level, a full-blown cost–benefit analysis is rarely performed as part of this process in the states.

¹³Selected rules may include rules with costs above a dollar threshold, particular types of rules, and/or rules promulgated by specific agencies.

¹⁴Obviously any rule that does not involve risk would be exempt from this general requirement.

¹⁵Regulatory flexibility analysis and similar approaches are not included in the analyses that follow.

¹⁶Costs are often given greater weight than benefits. Several states do not require quantification or even identification of the benefits of a rule.

304

¹⁰While this time period has advantages in terms of ensuring variation in the core independent variables, obviously some conditions that affect the use of regulatory analysis procedures in the states may have changed since these data were collected. In particular, the increasing pervasiveness and rigor of these required analyses in many states may make their effects more pronounced. One avenue of future research may therefore be to look at how the use and effect of regulatory analysis procedures has changed over time.

¹¹Data on economic analysis procedures come from a national survey conducted by the National Association on Administrative Rules Review (NAARR 1996). The survey was sent in May 1996 to 126 individuals across the country identified by NAARR as being involved in state agency rulemaking. Some questions on the NAARR survey refer to "the APA or applicable statutes;" respondents may thus draw upon other statutory requirements in their responses. In order to make the data consistent with the time period covered by this analysis (2000), a Lexis-Nexis search was used in order to isolate changes to the relevant statutes made during this time period that would impact the coding of the variables used in the analyses.

N. D. Woods

 Table 1
 Regulatory Analysis Procedures in the American States

State	Cost–Benefit Analysis	Risk Assessment	Economic Impact Analysis
Alabama	/		/
Alaska			
Arizona			
Arkansas			
California			
Colorado			
Connecticut			
Delaware			
Florida		/	
Georgia			
Hawaii			
Idaho			
Illinois			·
Indiana			·
Iowa			,
Kansas			
Kentucky	3	2	•
Louisiana	?	?	?
Maine			
Maryland			
Massachusetts			
	4	4	
Michigan			4
Minnesota			
Mississippi			4
Missouri			
Montana			
Nebraska			
Nevada			
New Hampshire			
New Jersey			
New Mexico			
New York			
North Carolina			
North Dakota			
Ohio			
Oklahoma			
Oregon			
Pennsylvania			
Rhode Island	NA	NA	NA
South Carolina			
South Dakota			
Tennessee			
Texas			
Utah			
Vermont			
Virginia			
Washington			
West Virginia			
Wisconsin			
Wyoming			

As of 2000. Italicized states are used in the analyses reported in Table 4.

The primary source of data for this study is a survey that was sent to 991 agency directors in 15 states in the summer of 2000. These survey data provide a unique opportunity to assess the impact of regulatory analysis procedures on administrative rulemaking. As stressed by Kerwin and Furlong (2011), rulemaking is a function that is important across a wide variety of agencies. Accordingly, this survey contains responses from a cross-section of agency types and substantive policy areas. The states selected are not a completely representative sample of all 50 states; however, they vary widely in terms of population, mean income levels, size of the state bureaucratic establishment, and regulatory analysis processes, making the 15 states a fairly diverse sample. The overall response rates, along with state-by-state response rates, are shown in Table 2.¹⁷

Respondents rated the impact that the agency, legislature, and governor have on "the content of rules and regulations affecting the clientele of your agency." Respondents were asked to choose the amount of influence on a five-point scale. In the analyses reported below, the dependent variable consists of the responses on this question, coded from 1 (representing "no impact") to 5 (representing "very great impact"). While necessarily somewhat subjective, these measures have the advantage of providing a common metric with which to assess a concept – influence – that is otherwise difficult to assess across agencies with different functions. ¹⁹ These measures are similar to those used in a wide range of studies assessing the influence of external actors on bureaucratic behavior. ²⁰

The central independent variable represents three important types of economic analysis requirements: cost-benefit analysis, risk assessment, and economic impact analysis. States may require any or all of these regulatory analyses. The variable is operationalized as a count of the number of types of analysis conducted by promulgating agencies. For each institution, the variable ranges from 0 (no analysis requirement) to 3 (agency must conduct all three types of regulatory analysis). ²²

In order to control for other possible determinants of political influence on state agencies, the study also employs a set of control variables representing other important political, institutional, and policy characteristics. In many states, the legislature has the power to review and veto administrative rules (Grady & Simon 2002) and these powers have also been shown to impact perceived legislative influence on state administrators (Gerber *et al.* 2005). To capture this impact, the analyses employ a dummy variable representing whether the state has a *Legislative Veto* (Council of State Governments 2000).

The governor's influence may increase with greater institutional resources. Two indicators of the governor's resources are therefore employed in these analyses. *Gubernatorial Appointment* is a dummy variable indicating whether the governor appointed the agency head. *Governor's Formal Powers* is Beyle (1999) index of the formal powers of the governor, which takes into account the governor's tenure potential, and veto, budget, reorganization, and appointment power. Similarly, a widely used measure of *Legislative Professionalism* is employed (King 2000). It contains components measuring legislative salary, time in session, and legislative staff. More professional legislatures may have greater capacity to oversee bureaucratic policy implementation (Boehmke & Shipan 2015). Finally, longer-serving agency directors may be less susceptible to influence by external actors. *Agency Director Tenure* measures the length of time the agency director has held his or her current position.

The analyses include other agency characteristics as controls. Certain agency features are expected to leave agencies less open to external political influence. Rulemaking may be more important to politically salient clientele groups in agencies with a predominately regulatory function than rules made in other types of agencies, thus *Regulatory Agency* is included as a dummy variable.²³ Larger agencies may likewise be subject to a higher level of political scrutiny than

306

¹⁷A total of 432 agencies responded to the survey, although somewhat fewer provided useable data.

¹⁸The intermediate categories are "some impact," "moderate impact," and "great impact," respectively.

¹⁹A potential drawback of survey-based measures is that respondents may not accurately report the influence of internal and external actors, as a result of either ignorance or bias.

²⁰Similar measures have been used to assess the influence of governors and legislatures (e.g. Brudney & Hebert 1987; Gerber *et al.* 2005), interest groups (Brudney & Hebert 1987; Woods 2005) and other important external actors (Furlong 1998; Waterman *et al.* 1998; Miller & Wright 2009; Woods 2009) on administrative agencies.

²¹In some cases, these requirements are imposed on all rules, while other states impose them only on a subset (such as rules with an economic impact higher than some threshold). The analyses treat the state as having the requirement if it is imposed on any rules.

²²Analyses conducted with a dummy variable representing whether each entity is required to conduct any of these analyses in lieu of the 0–3 additive index produce similar results.

²³State regulatory agencies perform professional licensing, utility regulation, health and safety regulation, and so on. Some prior research has found that the influence of external actors varies across policy areas (e.g. Brudney & Hebert 1987; Woods 2005, 2009); therefore, preliminary analyses employed several other dummy variables for policy type. These variables were not significant and were dropped from the analyses.

 Table 2
 Survey Response Rate by State

State	Response Rate	N	
Alabama	40%	35	
Arizona	54%	51	
California	41%	38	
Colorado	35%	17	
Delaware	49%	20	
Indiana	40%	31	
Michigan	42%	27	
Minnesota	54%	36	
Missouri	53%	40	
New Hampshire	47%	23	
New York	28%	25	
South Dakota	38%	18	
Tennessee	46%	23	
Texas	45%	31	
Vermont	46%	17	
Overall	44%	432	

smaller ones, so *Agency Size* is included as an indicator of the importance of the agency. It is operationalized as the agency's employment as a percentage of total state government employment.

Finally, political conditions may affect the influence exerted by elected officials. Under conditions of unified party control of government, for instance, legislatures are more likely to agree with the policy preferences of executive branch officials (both governors and agency personnel), and thus may be willing to cede them more authority than in cases where different parties control the legislature and governorship. Prior research has found that divided government reduces the amount of policymaking discretion that state legislatures delegate to the executive branch (Huber *et al.* 2001). Therefore, the analyses include a dummy variable for *Divided Government*, which is expected to increase the influence of the legislature, and decrease that of the governor. Table 3 provides summary statistics for each of the variables employed.

5. Results

Table 4 reports the results of multivariate analyses of the effect of the independent variables on perceived levels of gubernatorial, legislative, and agency influence on state agency rulemaking. The models are estimated using ordered logit, a statistical technique that is applied in cases where the dependent variable is categorical, with more than two

Table 3 Summary Statistics

Variable	Mean	Std. Dev.	Min.	Max.
Legislative Influence	3.11	1.18	1	5
Gubernatorial Influence	2.72	1.13	1	5
Agency Influence	4.41	0.84	1	5
Agency Economic Analysis	1.49	0.93	0	3
Legislative Veto	0.27	0.44	0	1
Gubernatorial Appointment	0.45	0.50	0	1
Agency Director Tenure	5.43	5.25	0.08	28
Governor's Formal Powers	3.31	0.37	2.5	4
Legislative Professionalism	0.32	0.23	0.061	0.9
Agency Size	0.01	0.02	9.34e-0.06	0.186
Regulatory Agency	0.25	0.43	0	1
Divided Government	0.44	0.50	0	1

Sources indicated in text. Std. Dev., standard deviation.

Table 4 Effects of Regulatory Analysis Procedures on Reported Levels of Rulemaking Influence

Independent Variable	Gubernatorial Influence (Model 1)	Legislative Influence (Model 2)	Agency Influence (Model 3)	Gubernatorial Influence (Model 4)	Legislative Influence (Model 5)	Agency Influence (Model 6)
Regulatory Analysis	-0.23**	-0.17*	0.24**	(2.20.202.2)	((======================================
Requirements	(0.10)	(0.09)	(0.10)			
requirements	[0.80]	[0.85]	[1.26]			
Cost–Benefit Analysis	[oloo]	[0.00]	[1,20]	-0.22	-0.55**	0.47*
,				(0.21)	(0.25)	(0.26)
					[0.57]	[1.59]
Economic Impact				-0 .28	-0.03	0.19
Analysis				(0.22)	(0.29)	(0.23)
Legislative Veto	-0.18	0.08	0.21	-0.09	0.05	0.18
	(0.18)	(0.17)	(0.22)	(0.24)	(0.19)	(0.19)
Gubernatorial	0.41**	0.40**	0.47*	0.41**	0.42**	0.47*
Appointment	(0.14)	(0.19)	(0.25)	(0.14)	(0.19)	(0.25)
	[1.50]	[0.67]	[1.59]	[1.51]	[0.66]	[1.59]
Agency Director	-0.06**	-0.04**	-0.01	-0.06**	-0.04**	-0.01
Tenure	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
	[0.94]	[0.97]		[0.94]	[0.96]	
Governor's Formal	0.53**	-0.23	-0.15	0.40	-0.04	-0.19
Powers	(0.22)	(0.24)	(0.26)	(0.33)	(0.22)	(0.24)
	[1.69]				**	
Legislative Professionalism	0.19	-0.56	-0.17	0.12	-0.95**	0.06
	(0.36)	(0.36)	(0.39)	(0.52)	(0.37) [0.39]	(0.53)
Agency Size	4.03	3.05	-0.35	4.04	3.15	-0.34
	(3.12)	(4.06)	(3.50)	(3.05)	(3.96)	(3.65)
Regulatory Agency	-0.06	-0.10	0.24	-0.05	-0.10	0.24
	(0.21)	(0.16)	(0.24)	(0.21)	(0.16)	(0.23)
Divided Government	43***	0.20	0.40*	-0.42*	0.03	0.52**
	(0.21)	(0.21)	(0.23)	(0.26)	(.16)	(0.20)
	[0.65]		[1.49]	[0.65]		[1.67]
Cut Points	-1.02	-4.13	-4.29	-1.41	-3.87	-4.35
	1.02	-2.13	-2.89	0.63	-1.87	-2.81
	2.39	-0.92	-1.77	2.00	-0.65	-1.69
	3.48	0.33	-0.07	3.08	0.61	0.01
Log Likelihood	-581.03	-513.26	-419.07	-581.06	-611.38	-418.15
Chi Square	301.42	56.15	67.22	816.10	140.23	210.23
N	406	410	410	406	410	410

Note: ordered logit coefficients, with state-clustered standard errors in parentheses and odds ratios in brackets.

categories (for a more detailed discussion of this technique, see Long 1997). The analyses include variables measured at both state and agency level.²⁴ The standard errors are thus likely to be correlated across agencies within a given state. In order to adjust for this, significance levels are calculated using standard errors that are clustered by state (Rogers 1993; Williams 2000).²⁵

^{*}P < 0.10;

^{**}P < 0.05.

²⁴State-level variables include *Divided Government*, *Legislative Professionalism*, *Governor's Formal Powers*, *Legislative Veto*, and *Regulatory Analysis Requirements*, which is split into two variables in the second set of analyses. Agency-level variables include *Regulatory Agency, Agency Size*, *Agency Director Tenure*, and *Gubernatorial Appointment*.

²⁵The standard errors may also be contemporaneously correlated across models. If so, a joint estimation approach such as a seemingly unrelated regressions model would be appropriate. To investigate this possibility I ran SUR-type models that apply an Eicker-Huber-White sandwich covariance estimator to a set of equations estimated by ordinary least squares, modified to allow clustering of the standard errors within states. These results are fully comparable to those presented.

Interpreting these models is slightly complicated by their non-linear functional form. Thus, each statistically significant result is interpreted through the use of an odds ratio, which represents the change in the odds of a respondent rating the actor as having the next higher category of influence associated with a one unit change in the independent variable, holding all other independent variables at their mean. In the case of dichotomous independent variables, the odds ratio represents the change in odds associated with moving from a value of 0 to a value of 1, holding all other variables constant at their mean.

The results from Models 1 and 2 indicate that requirements that agencies conduct economic analysis on proposed rules are associated with a lower amount of influence that both legislatures and governors are reported to exert on agency rulemaking. The effect is similar for each, with a one unit increase in these requirements being associated with a 20 percent decline in the odds of a governor being viewed as influential and a 15 percent decline in the odds of legislature being viewed as influential, ceteris paribus. These findings run contrary to the hardwiring and informational arguments that regulatory analysis procedures should increase perceived political influence on agency decisionmaking, and support the counterargument that agency control over the analytic information provided to political actors serves to decrease external influence by political officials. This interpretation is buttressed by the results of Model 3, which indicate that regulatory analysis requirements are associated with a significant increase in the influence that agencies are reported to have over their rulemaking, with a one unit increase in these requirements being associated with a 26 percent increase in the odds that the agency is viewed as influential.

The other variables largely behave as expected. Looking across the models, gubernatorial appointment of agency heads is associated with higher reported levels of influence by governors, and lower reported levels of influence for legislatures. Agency directors that have held their positions for longer periods of time report lower levels of outside influence, all else constant. In Model 1, greater gubernatorial power is associated with greater perceived gubernatorial influence. Divided government leads to lower levels of perceived gubernatorial influence, a finding consistent with expectations. It is also associated with greater perceived agency influence, which may reflect agencies' increased policymaking latitude during periods in which legislative and gubernatorial preferences diverge (McCubbins *et al.* 1989).

Contrary to expectations, however, increases in legislative professionalism lead to significantly lower legislative influence being reported in Model 5. This may be because, unlike the formal powers of the governor, legislative professionalism is not a measure of formal institutional powers. Rather, it captures time in session, staff, and salary, which are indicative of both greater resources and greater careerism. It has been suggested in some prior work that more career-oriented legislators are less apt to devote their resources to legislative oversight, an activity with relatively low electoral reward (e.g. Woods & Baranowski 2006). This finding is consistent with such an interpretation of legislator behavior.

In an attempt to ascertain whether one type of regulatory analysis procedure is more likely to lead to a weakening of external political influence on administrative rulemaking, Models 4 through 6 present the results of analyses of institutional influence with dummy variables representing whether the agency is required to conduct a cost–benefit or an economic impact analysis. The effect of risk assessment cannot be independently assessed in these analyses because only a small number of states in this sample require agencies to conduct a risk assessment (three states), each of which also requires agencies to conduct cost–benefit analysis.

Cost-benefit analysis is significant in two of the three models, being negatively associated with perceived legislative influence and positively associated with perceived agency influence on administrative rules. Economic impact analysis, by contrast, is not significant in any of the three models. These results provide suggestive evidence that cost-benefit analysis may be the strongest driver of decreased external influence on agency regulatory policymaking, which is consistent with the notion that the greater complexity involved in cost-benefit analysis may afford agencies greater informational advantages vis-à-vis elected political officials and increased opportunity to use conceptual power to their advantage.

²⁶One cannot make an unqualified assertion that this relationship is causal, however, because of the difficulties in assessing the causal impacts of institutions using regression-based methods (Keele *et al.* 2013). For instance, as one anonymous reviewer pointed out, there is the possibility of reverse causality with states that do not have much control over agencies introducing regulatory analysis requirements in order to exert more control. Untangling this causality is a potential avenue for future research in this area.

6. Conclusion

The argument for widespread adoption of cost–benefit analysis and other regulatory analysis procedures lies in their presumed ability to provide a rational, objective means of quantifying and weighing policy alternatives. Whatever their merits in this regard, the results of this study suggest that these procedures may also affect the amount of influence that both governors and legislatures have on the content of agency rules and regulations. The empirical findings indicate that more extensive regulatory analysis requirements are associated with decreases in the amount of perceived influence for both governors and legislatures, and concomitant increases in agency rulemaking autonomy. These findings are consistent with recent literature on the political power of administrative agencies, which suggests that regulatory analysis procedures may be expected to exacerbate, rather than ameliorate, existing information asymmetries and thus serve as an additional conduit for agencies seeking to pursue their policy objectives.

These results are contrary to the predictions of both hardwiring administrative procedures theory and informational theories of regulatory analysis requirements. This study thus points to the need for careful empirical evaluation of theories of administrative processes as instruments of bureaucratic control. Such research could be conducted in other empirical contexts, including at the national level in the US and cross-nationally. If these results hold up more broadly, this suggests that procedural mechanisms may not have the neatly discernable a priori impact on bureaucratic policymaking that some theorists have suggested – an important empirical caveat to this widely cited theoretical literature.

With respect to regulatory analysis procedures specifically, one potential avenue for further investigation is the role of policy analytic capability in the executive and legislative branches, which may serve as a counterweight to agency expertise. Generally speaking, there are two potential sources of informational advantage that agencies may possess vis-à-vis elected officials in preparing regulatory impact analyses: (i) the agency's substantive expertise in the policy domain, and (ii) its analytic capacity. While the former is an area of inherent informational advantage, the latter is something that, in principle, may be eliminated through investments in the analytic capabilities of the staff of political institutions. During the time period covered by this study, there was relatively little policy analytic expertise in many state legislatures and governor's offices that could be employed to oversee agency analyses. In the succeeding years, however, some state political institutions have bolstered their capacity; most notably via executive orders issued by some governors to create something more resembling OIRA-style regulatory review in the executive branch (Schwartz 2010). Future research could evaluate whether these investments have affected the diminution of political control that may accompany the imposition of agency regulatory analysis requirements. More generally, conditions in the states may have changed in several ways since these data were collected, and future research using updated measures of key concepts promises to enrich our understanding of these phenomena.

Thus, although this study represents an important first step in understanding the effects of regulatory analysis procedures on bureaucratic policymaking, additional research is necessary to clarify this relationship. There is a rich amount of variation across states in the details of these requirements that is not captured in the analyses presented in this paper. Future researchers may therefore employ more nuanced measures to further investigate the impact of particular types of analysis procedures, for instance, or delve deeper into the details of their implementation. Such investigations may focus on disentangling causal effects by employing methods designed to address possible endogeneity between administrative procedures and policy outcomes. Future researchers may also find ways to employ alternative, more objective indicators of rulemaking influence than the survey-based methods employed here. Studies along these lines may provide substantively important insights. The Office of Management and Budget and the Organization for Economic Cooperation and Development, for example, actively promote international adoption of the sorts of analytical procedures discussed here, but this analysis suggests that policymakers may wish to approach these recommendations with caution because they could empower administrative agencies vis-à-vis political officials. More generally, although the discussion of regulatory analysis requirements is often articulated in procedural terms, these findings suggest that they may also produce significant – and possibly unanticipated – consequences for bureaucratic policymaking.

Acknowledgments

The author thanks Mike Baranowski for the use of data from his survey of state administrators. The use and interpretation of these data is solely the responsibility of the author.

References

Ackerman F, Heinzerling L (2004) Priceless: On Knowing the Price of Everything and the Value of Nothing. The New Press, New York.

Adler MD, Posner EA (1999) Rethinking Cost-benefit Analysis. Yale Law Journal 109, 165-247.

Adler MD, Posner EA (2006) New Foundations of Cost-Benefit Analysis. Harvard University Press, New York.

Anderson JE (1998) The Struggle to Reform Regulatory Procedures, 1978–1998. Policy Studies Journal 3, 482-498.

Bawn K (1995) Political Control versus Expertise: Congressional Choices about Administrative Procedures. *American Political Science Review* 89, 62–73.

Bendor J, Taylor S, Van Gaalen R (1987) Politicians, Bureaucrats, and Asymmetric Information. *American Journal of Political Science* 31, 796–828.

Beyle T (1999) Governors. In: Gray V, Hansen R, Jacob H (eds) *Politics in the American States: A Comparative Analysis*, 7th edn. CQ Press, Washington, DC, 191–231.

Boehmke FJ, Shipan CR (2015) Oversight Capabilities in the States: Are Professionalized Legislatures Better at Getting What they Want? *State Politics & Policy Quarterly* 15, 366–386.

Bonfield AE (1986) State Administrative Rulemaking. Little, Brown, Boston.

Brudney JL, Hebert FT (1987) State Agencies and their Environments: Examining the Influence of Important External Actors. *Journal of Politics* 49, 186–206.

Carpenter D (2010) Reputation and Power: Organizational Image and Pharmaceutical Regulation at the FDA. Princeton University Press, Princeton, NJ.

Council of State Governments (2000) The Book of the States. Council of State Governments, Lexington, KY.

de Figueiredo RJP Jr, Vanden Bergh RG (2004) The Political Economy of State Level Administrative Procedure Acts. *Journal of Law & Economics* 4, 569–588.

Dunlop CA, Magetti M, Radaelli CM, Russel D (2012) The Many Uses of Regulatory Impact Assessment: A Meta-analysis of EU and UK cases. *Regulation & Governance* 6, 23–45.

Ellig J, McLaughlin PA, Morrall JF III (2013) Continuity, Change, and Priorities: The Quality and Use of Regulatory Analysis across US Administrations. *Regulation and Governance* 7, 153–173.

Furlong SR (1998) Political Influence on the Bureaucracy: The Bureaucracy Speaks. *Journal of Public Administration Research and Theory* 8, 39–65.

Gerber B, Maestas C, Dometrius N (2005) State legislative influence over agency rulemaking: The utility of ex ante review. *State Politics and Policy Quarterly* 5, 24–46.

Grady DO, Simon KM (2002) Political restraints and bureaucratic discretion: The case of state government rule making. *Politics & Policy* 30, 646–679.

Hahn RW (2000) State and federal regulatory reform: A comparative analysis. Journal of Legal Studies 29, 873-912.

Hahn RW (2004) The economic analysis of regulation: A response to the critics. University of Chicago Law Review 7, 1021–1054.

Harris RA, Milkis SM (1996) The Politics of Regulatory Change, 2nd edn. OUP, New York.

Haveman R (2007) The Chicago O'Hare expansion: A case study of administrative manipulation of benefit—cost principles. *Research in Law and Economics* 23, 183–202.

Hedge DM, Johnson RJ (2002) The plot that failed: The Republican revolution and congressional control of the bureaucracy. *Journal of Public Administration Research and Theory* 12, 333–351.

Huber JD, Shipan CR, Pfahler M (2001) Legislatures and statutory control of the bureaucracy. *American Journal of Political Science* 45, 330–345.

Jennings ET Jr, Woods ND. 2007. Does Management *Really* Matter? Management Quality and State Environmental Performance. Presented at 9th Public Management Research Conference, 25–27 October 2007, Tucson, Arizona.

Keele L, Malhotra N, McCubbins CH (2013) Do term limits restrain state fiscal policy? Approaches for causal inference in assessing the effects of legislative institutions. *Legislative Studies Quarterly* 389, 291–326.

Kerwin C, Furlong SR (2011) *Rulemaking: How government agencies write law and make policy*, 5th edn. CQ Press, Washington, DC. King JD (2000) Changes in the professionalism of U.S. state legislatures. *Legislative Studies Quarterly* 25, 327–343.

Krause GA (1999) A two way street: The institutional dynamics of the modern administrative state. University of Pittsburgh Press, Pittsburgh, PA.

Livermore MA (2014) Cost-benefit analysis and agency independence. University of Chicago Law Review 81, 609-688.

Long JS (1997) Regression models for categorical and limited dependent variables. SAGE, Thousand Oaks, CA.

May PJ, Sapotichne J, Workman S (2009) Widespread policy disruption and interest mobilization. *Policy Studies Journal* 37, 793–815.

McCubbins MD (1985) The legislative design of regulatory structure. American Journal of Political Science 29, 721-748.

McCubbins MD, Schwartz T (1984) Congressional oversight overlooked: Police patrols versus fire alarms. *American Journal of Political Science* 28, 165–179.

McCubbins MD, Noll RG, Weingast BR (1987) Administrative procedures as instruments of political control. *Journal of Law Economics*, & Organization 3, 243–277.

McCubbins MD, Noll RG, Weingast BR (1989) Structure and process, politics and policy: Administrative arrangements and the political control of agencies. *Virginia Law Review* 75, 431–482.

McGarity TO (1991) Reinventing Rationality: The Role of Regulatory Analysis in the Federal Bureaucracy. CUP, Cambridge, NY.

Miller LL (2004) Rethinking bureaucrats in the policy process: Criminal justice agents and the national crime agenda. *Policy Studies Journal* 32, 569–588.

Miller CM, Wright DS (2009) Who's minding which store? Institutional and other actors' influence on administrative rulemaking in state agencies, 1978-2004. *Public Administration Quarterly* 33, 397–428.

Moe TM (1989) The Politics of Bureaucratic Structure. In: Chubb JE, Peterson PE (eds) *Can the Government Govern?* Brookings Institution Press, Washington, DC, 267–329.

Morgenstern RD (ed) (1997) Economic analysis at EPA: Assessing regulatory impact. Resources for the Future, Washington, DC.

NAARR (National Association on Administrative Rules Review) (1996) 996–97 Administrative rules review directory and survey. Thomas Legal Publishing, Lombard, IL.

Nicholson-Crotty J, Miller SM (2012) Bureaucratic effectiveness and influence in the legislature. *Journal of Public Administration Research and Theory* 22, 347–371.

O'Leary R (2014) The Ethics of Dissent: Managing Guerilla Government, 2nd edn. CQ Press, Washington, DC.

Posner EA (2001a) Controlling agencies with cost–benefit analysis: A positive political theory perspective. *University of Chicago Law Review* 68, 1137–1199.

Posner EA (2001b) Cost-benefit analysis as a solution to a principal-agent problem. Administrative Law Review 53, 289-297.

Potoski M (1999) Managing uncertainty through bureaucratic design: Administrative procedures and state air pollution control agencies. *Journal of Public Administration Research and Theory* 9, 623–639.

Potoski M, Woods ND (2001) Designing state clean air agencies: Administrative procedures and bureaucratic autonomy. *Journal of Public Administration Research and Theory* 11, 203–221.

Radaelli C, De Francesco F. 2010. Regulatory impact assessment.In Baldwin, R, Cave M, Lodge M (eds). Oxford Handbook of Regulation. New York: OUP

Rogers WH (1993) Regression standard errors in clustered samples. In: Stata Technical Bulletin, Vol. 13, pp. 19–23.

Schwartz JA (2010) 52 Experiments with Regulatory Review: The Political and Economic Inputs into State Rulemakings, Institute for Policy Integrity Report No, NYU School of Law.

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

Shapiro S (2008) Evaluating the benefits and costs of regulatory reforms: What questions need to be asked? *Evaluation and Program Planning* 31, 223–230.

Shapiro S, Borie-Holtz D (2013) The Politics of Regulatory Reform. Routledge, New York.

Spence DB (1997) Agency policy-making and political control: Modeling away the delegation problem. *Journal of Public Administration Research and Theory* 2, 199–291.

Spence DB (1999a) Managing delegation ex ante: Using law to steer administrative agencies. *Journal of Legal Studies* 28, 413–459.

Spence DB (1999b) Agency discretion and the dynamics of procedural reform. Public Administration Review 59, 425-458.

Tiller EH (2002) Resource-based strategies in law and positive political theory: Cost–benefit analysis and the like. *University of Pennsylvania Law Review* 150, 1453–1472.

Waterman RW, Rouse A, Wright R (1998) The venues of influence: A new theory of political control of the bureaucracy. *Journal of Public Administration Research and Theory* 8, 13–38.

West WF (1984) Structuring administrative discretion: The pursuit of rationality and responsiveness. *American Journal of Political Science* 28, 340–360.

Whisnant R, DeWitt Cherry D (1996) Economic analysis of rules: Devolution, evolution, and realism. *Wake Forest Law Review* 75, 693–743.

Williams RL (2000) A note on robust variance estimation for cluster-related data. Biometrics 56, 645-646.

Wood BD, Bohte J (2004) Political transaction costs and the politics of administrative design. Journal of Politics 66, 176-202.

Woods ND (2005) Interest group influence on state administrative rule making: The impact of rule review. *American Review of Public Administration* 35, 402–413.

Woods ND, Baranowski M (2006) Legislative professionalism and influence on state agencies: The effects of resources and careerism. *Legislative Studies Quarterly* 31, 585–609.

Woods ND, Baranowski M (2007) Governors and the bureaucracy: Executive resources as sources of administrative influence. *International Journal of Public Administration* 30, 1219–1230.

- Woods ND (2009) Promoting participation? An examination of rulemaking notification and access procedures. *Public Administration Review* 69, 518–530.
- Woods ND (2015) Regulatory democracy reconsidered: The policy impact of public participation requirements. *Journal of Public Administration Research and Theory* 25, 571–596.