

Political Insulation, Information Exchange, and Interest Group Access to the Bureaucracy

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ABSTRACT

Under political uncertainty, legislative coalitions have incentives to insulate policy from future coalitions. While there is evidence of legislators' use of agency design to insulate the bureaucracy from elected officials, little is known about the ultimate consequences of such design choices on the policy participation of interest groups. How such design choices affect group access is important because of the centrality of groups in providing both bureaucratic accountability and information for policy development. Accordingly, we examine the consequences of the so-called "insulation game" on group access to the bureaucracy. We develop an information exchange theory that portrays the impact of agency design choices on group-reported access as a function of the level of design-induced political insulation and the quality of the information offered by a given group. We test our theory with two original datasets that include design parameters of US state environmental agencies and survey data measuring reported agency access by state-level interest groups. Our results suggest that insulating agencies via design does lead to lower reported access to regulators by interest groups, but only among those groups who supply less valuable information.

When legislative coalitions face uncertain political futures, they have an incentive to use agency design (McCubbins, Noll, and Weingast [McNollgast] 1987, 1989) to protect their policies from future elected officials (De Figueiredo 2002; De Figueiredo and Vanden Bergh 2004; Moe 1989, 1990). Engaging in this particular use of design, or playing the "insulation game," may however have unforeseen consequences. Although certain design choices may successfully insulate an agency from interference from elected officials, we know from prior research that they may also shape the opportunities that *private* interests have to interact with administrative agencies (Balla and Wright 2001; Macey 1992; McNollgast 1987, 1989). Yet, despite the prominence of such work, controversy persists over precisely how and whether such design choices affect interest groups' activities

The authors would like to acknowledge several scholars for their helpful comments and suggestions, including: Cherie Maestas, Gretchen Sunderman, Jeffrey Staton, and the anonymous reviewers for this article. Address correspondence to the author at creenock@fsu.edu.

doi:10.1093/jopart/mum021

Advance Access publication on September 10, 2007

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(Arnold 1987; Spence 1997). Accordingly, in this article, we investigate the extent to which institutional context shapes group access to the bureaucracy. Specifically, we ask how precisely do agency design choices that insulate agencies from elected officials affect interest group access to the bureaucracy?

The answer to this question is significant given the vital role that interest groups are believed to play in bureaucratic affairs. Not only is interest group activity central to the provision of democratic accountability over bureaucracies via “fire-alarm” monitoring (McCubbins and Schwartz 1984) but it also critical to the supply of valuable external information in policy delivery (Sabatier and Jenkins-Smith 1993). By limiting group access, insulation may threaten both of these public benefits by diminishing fire-alarm monitoring over an agency, generating a serious concern for the quality of bureaucratic accountability (Gormley and Balla 2004; Hyneman 1950; Ripley and Franklin 1986; Wood and Waterman 1994) and denying agency officials external information that allows them to make more technically competent policy decisions. If this effect on group access is considerable, elected officials may face rather high costs of playing the insulation game in the form of lower public accountability and greater policy vulnerability for an agency. This is the paradox of insulation; in trying to solve one problem, legislators may have simply created another.

Precisely how and whether design choices actually affect interest group access to the bureaucracy has not been addressed in the literature, which is curious given the important role that groups play in bureaucratic affairs. To address this critical gap, we elaborate and test a theory of group access that specifies the conditions under which design choices that insulate agency officials from external political interventions reduce group access. Our argument is that design choices, which alter the level of political insulation that regulatory officials face, induce regulatory officials to differentially value information provided by external groups and condition the access that they grant to these groups. Under less insulated conditions, the value of externally supplied information is high, inducing officials to grant access to all groups. However, when design choices increase political insulation, administrators have relatively greater freedom to be selective in their interactions and, given the costs of gathering information, grant access only to those groups who supply high-quality information.

To test this argument, we integrate two original datasets to examine how design choices influence the degree of direct and regular contact (i.e., access) that state-level interest groups concerned with air pollution control report having with regulators in US state environmental agencies. Our results suggest that there are negative consequences associated with the trade off outlined above. Insulatory design choices do induce agency officials to care less about external information sources, leading them to reduce access to groups external to the agency. However, this consequence is not absolute. The impact of agency design features on group-reported access is conditioned by the organizational capacity of the group. Well-organized groups or those groups offering high-quality information are unaffected by such design choices. Less organized groups, on the other hand, report lower access when design choices insulate agency decision makers from external political interventions. These results point to a new way of thinking about how choices over agency design function in practice with respect to group access.

We divide the remainder of this article as follows. We begin by reviewing the state of the current literature and then introduce our informational exchange model of group access and outline its testable propositions. We then describe our empirical research design, discuss our measures and present several tests of the argument. We conclude by considering the

implications of elected officials using design choices to insulate agencies from external political interference.

INSULATION AND GROUP ACCESS

Legislators fear uncertainty. In politically uncertain climates, legislators' fears are likely to materialize not only in their concern for their own survival but also for the survival of their policies. Concerned that future coalitions may undo their work, legislators are thought to protect their policies by insulating the implementing agency from external political interference (Moe 1989) with choices over agency "structure and procedures" (Bawn 1995; Calvert, McCubbins, and Weingast 1989; Epstein and O'Halloran 1994, 1999; Huber and Shipan 2002; Huber, Shipan, and Pfahler 2001; McCubbins 1985; McNollgast 1987, 1989). In this respect, insulation mechanisms are attractive design options because they allow legislators to trade policy benefits when in power for policy benefits when out of power (De Figueiredo 2002; De Figueiredo and Vanden Bergh 2004). Whether via the political insulation granted to agency heads (Volden 2002), the adoption of policy analysis procedures (Potoski 1999), or the adoption of state administrative procedure acts (De Figueiredo and Vanden Bergh 2004), in the presence of political uncertainty legislators are more likely to install design choices that insulate the bureaucracy from external interference by elected officials to guard their policies against future political interference.

However, scholars have noted that such insulation is not costless. As insulation increases, elected officials are presumed to suffer costs in terms of reduced bureaucratic accountability and increased policy inefficiencies. The attractiveness of such insulation mechanisms as a response to political uncertainty then is believed to be conditioned by legislators' willingness to trade off the benefits of policy influence in the future versus the costs of present policy losses derived from restricting agency discretion (Bawn 1995; De Figueiredo 2002; Epstein and O'Halloran 1999).

One potential cost of playing the insulation game not yet considered is the impact of such design choices on the interest group community. In addition to insulating agencies from elected officials, such design choices may also insulate agencies from interest groups with whom they might interact. If this were the case, the delegation problem that elected officials attempted to resolve may either be mitigated or exacerbated, depending upon exactly how such design choices impact group access to the bureaucracy. But, the way in which such design choices might affect group access is not entirely evident.

One possibility is that, under higher insulation, agency officials are liberated from political pressures and able to solicit information from a wider variety of groups (proactively responsive government). Under such a scenario, access to the bureaucracy would actually increase for a wider range of groups, suggesting a more open and accessible agency than was intended. An alternative possibility is that with greater insulation, agency officials could have less incentive to interact with all groups, preferring instead to be rather selective about their contacts, leading to the further isolation of an agency.¹ The central

¹ In terms of the former, research has found that agents within the bureaucracy can and do seek out information broadly to learn about and improve policy. This is true in policy areas as diverse as disaster management (Birkland 2006) and telecommunications regulation (Kim and Gerber 2005). In terms of the latter Gormley's (1986), well-known salience-complexity typology suggests that certain types of policy issues actually free the bureaucracy from broad public participation ("board room" politics). Given that either option is plausible, the critical question is whether agency design choices specifically affect the likelihood of observing one possibility or the other.

issue is that precisely how, and whether, design choices actually translate into groups gaining direct access to the bureaucracy has not been resolved by either bureaucracy or interest group scholars. Indeed, the interest group literature is silent on the role that institutional context might play in shaping group access to the bureaucracy.

In our view, two direct consequences of insulatory design choices altering group access are particularly intriguing. First, if private interests' access to the bureaucracy is affected by such design choices, a long heralded solution to the delegation problem, fire-alarm oversight by groups, may be handicapped. Second, insulating bureaucratic agents from private groups may deny them valuable information possessed by those groups. Along these lines, design choices that insulate the agency from external groups may yield unforeseen policy costs to the enacting coalition. Indeed, McNollGast emphasize the role that design choices may play in the policy process, noting that policy decisions "... depend on what information is available to the agency ...," and in that respect, design choices "... determine the quantity, quality, and completeness of available information ..." (1989, 440). Each of these possibilities underlines the importance of better understanding whether and how such design choices influence access.

Why might insulatory design choices impact group access to the bureaucracy? At the core of the delegation literature is the idea that legislative choices over structure and procedures may have direct consequences for how specific groups are "enfranchised" in the policy process. Whether over structure (Epstein and O'Halloran 1994, 1999; Hall 1996; Macey 1992; McNollgast 1987, 1989; Whitford 2002) or process (Hamilton and Schroeder 1994; Hill and Brazier 1991; McNollgast 1987, 1989; Potoski 1999; Spence 1999), agency design choices are believed to enfranchise either ideological interests or interests with varying organizational capacity, independent of ideology.

In terms of ideological interest, agency design is believed to supply "automatic access" to favored groups by ensuring that their interests are represented as a by-product of the policy process through which agencies must initiate and implement policy (McNollgast 1987, 1989). Although groups may not literally be present for such policy considerations, their interests nevertheless may. In terms of organizational capacity, however, enfranchisement refers to the "direct and regular access" that certain groups receive as a function of their organizational resources and information (McNollgast 1989). Policymakers seeking "perspective and interpretation" of policy decisions (Hill and Brazier 1991, 389) will seek out information external to the agency to better inform their policy deliberations (Ferejohn 1987; see also West 2004). Design choices that structurally induce an agency's informational needs may lead to certain groups, those able to produce more valuable information, being more likely to be present or consulted for policy considerations, that is, to have greater direct access.

Indeed, McNollgast argue that information flow is critical to the group enfranchisement of organized interests noting that, "structure and process ... affect[s] the dependence of the agency on information ... An agency that has sufficient resources to generate its own information about the consequences of its decisions ... will be far less dependent on highly organized, well-represented interests ..." (1989, 440). As a result, poorly organized groups may benefit from design choices that force agency officials to seek out external groups for their policy or political input (Macey 1992; McNollgast 1989, 440). But design choices are likely to impact more than just an agency's ability to gather information. Design choices also are likely to affect the agency officials' incentives to seek out external information. Why?

We believe that agency officials' incentives to seek external information are conditioned by the level of design-induced political insulation that bureaucrats confront. Not all bureaucrats face the same level of political insulation or protection from external political interventions in agency affairs (Moe 1989, 1990). Only certain design choices, such as enhanced professional requirements, career service, and limitations on political appointees in an agency, or constraints on the level of legislative or judicial review of an agency's actions are primarily designed to reduce an agency's exposure to external political interventions (De Figueiredo 2002; Moe 1989, 1990). We believe that, taken together, the informational argument of McNollGast and the political insulation argument of Moe can be used to portray the interest group-bureaucrat relationship in a different light, one that is grounded in an information exchange relationship, whose value is shaped by the level of political insulation that agency design affords.

To be sure, making use of an information exchange approach to explain group access to the bureaucracy is not novel. First, resource exchange has been previously used to characterize the relationship between private interests and legislators, either in the form of specialized information about policy effects, constituent views, or in the more prosaic form of financial campaign assistance given in return for stronger representation in the legislature (Austen-Smith 1995; Denzau and Munger 1986; Wright 1996). In such models, interest group access is a function of the group's capacity to serve a legislator's reelection imperative (Hansen 1991) and to reduce uncertainty over the consequences of their policy decisions (Austen-Smith 1995; Denzau and Munger 1986; Wright 1996). Second, information exchange has been previously applied to group access to the bureaucracy through advisory boards (Balla and Wright 2001) as well as in the notice and comment process (Golden 1998; Yackee 2005; Yackee and Yackee 2006).

What is novel about our approach is the integration of these literatures to address the question of whether interest group *access* with the bureaucracy is a function of *design* choices that structure the relative insulation of the policy-making environment. In order to understand how design choices over structure and process lead to group enfranchisement in the form of direct access, we present an information exchange model of interest group access to the bureaucracy.

INFORMATION EXCHANGE, AGENCY DESIGN, AND GROUP ACCESS TO REGULATORY AGENCIES

To apply an information exchange model to group access to the bureaucracy, we begin by assuming that organized interests and administrative officials exchange information for the purposes of advancing their individual interests and that in this exchange, regulatory officers determine the access granted to a given group. Given that regulatory officers possess some degree of discretion over policy-making decisions (Epstein and O'Halloran 1999; Huber and Shipan 2002; Huber, Shipan, and Pfahler 2001), we believe that they also possess discretion over granting groups direct and regular contacts. Moreover, we also assume that groups provide information of varying utility to regulatory officers (Nownes and Freeman 1998). Last, we assume that regulatory officers' gathering information via external groups is not costless, but varies in the available resources that they possess and the utility that they assign to external information. Building upon these assumptions, our theoretical framework explains how agency design choices affect this information exchange.

From the perspective of the interest group, the exchange of information with regulators has several benefits. Assuming that organized interests have as their ultimate goal the delivery of policy benefits and successes for their members (Heinz et al. 1993), regular information exchange with agency officials has value in at least two forms. First, supplying information to select agency officials allows groups to pursue their policy preferences directly by attempting to influence important policy decisions that lie within the discretionary range of the agency officials (Hansen 1991; Hrebener 1997; Wright 1996). The supply of external information may allow agency officials to update their preferences in the direction of a given interest prior to setting policy. Second, the provision of information on an agency's recent and proposed activities raises a group's value to legislators seeking to keep abreast of any politically damaging developments at the agency, enhancing a group's ability to serve in a "fire-alarm" capacity (McCubbins and Schwartz 1984). In turn, this may enhance their chance of affecting policy decisions at the agency indirectly through the legislature.

From the perspective of regulatory officials, information exchange provides benefits over a variety of dimensions. The literature is flush with arguments about regulatory officials attempting to maximize several dimensions, including efficient and effective policy delivery (Hunter and Waterman 1996), agency budgets (Niskanen 1971), decision-making autonomy (Holden 1966; Wilson 1989), and professional advancement (Khademian 1992, 2002). In light of these arguments, we believe that regulatory officials seek to maximize their net policy and political benefits. In this respect, we assume that regulatory officials seek to maximize their preferences over policy delivery while minimizing threats to their decision-making autonomy or professional advancement that may result from political conflict over policy delivery. In this way, regulators are motivated to lower their uncertainty over both the policy and political consequences of prospective policy decisions (McNollgast 1987, 1989).

Compared to legislators, however, regulators have relatively high informational advantages with respect to substantive policy consequences of their decisions (Hunter and Waterman 1996; Khademian 1992; McNollGast 1987, 1989; Moe 1984; Niskanen 1971; Waterman, Rouse, and Wright 2004). High levels of policy expertise and experience serve to reduce the uncertainty attached to the policy consequences from a prospective policy decision. However, policy expertise does not necessarily translate into political expertise. Regulators are likely to have less certainty over political consequences, or the potential of a given policy choice to provoke political conflict in the legislature or the stakeholder community. Moreover, not all agency officials have similar informational needs. Rather each has a *minimum information threshold* below which they are less willing to make a policy decision. Beyond this minimal threshold, however, an official is more satisfied with the level of uncertainty associated with his or her policy decision. The utility that a regulatory official assigns to external interest groups then is a function of the level of their minimum information threshold, the relative effectiveness of any group in satisfying those informational needs, and the costs of gathering such information. Regulatory officials must then grant a level of group access that will provide their minimum level of information at the lowest cost. As the information thresholds of regulatory officials rise, they will be increasingly more likely to grant access to external groups for the purpose of information gathering, especially those groups perceived to be supplying higher quality information. By higher quality information, we mean information that substantially reduces officials' uncertainty about the consequences of their policy actions. An interest group's

access to a regulatory official, then, is a function of the utility that regulatory officials assign to granting access to that group.²

What role then do agency design choices play in this information exchange? In our theoretical framework, design choices shape the level of a regulatory official's minimum information threshold. We argue that design choices structure the value of external information in how they expose or insulate agency decision making to external political interference from either representative institutions (i.e., the legislature) or the policy community. Such choices result in regulators having institutionally induced informational needs by shaping the insulation with which they make policy decisions. Several scholars have noted the utility of "insulation tactics" as commitment devices that secure policy benefits for political coalitions by minimizing external political interference in agency affairs (De Figueiredo 2002, 2003; De Figueiredo and Vanden Bergh 2004; Moe 1989, 1990).³ We suggest that one consequence of greater insulation is that bureaucratic officials, being relatively less concerned about estimating the consequences of their decisions, will devalue external information, thereby lowering their minimum information thresholds.

Relative to more insulated environments, regulatory officers, whose policy decisions are more vulnerable to political interference, will have higher information thresholds and will therefore place greater value on externally supplied information and its ability to reduce the uncertainty associated with the consequences of their policy decisions. Under such conditions, the value of externally supplied information will be relatively high compared to the costs of gathering it. Therefore, design choices that politicize the decision-making environment of the agency by introducing, for example, legislative review over agency rule promulgation or locating decision-making authority higher up the agency's chain of command, will increase the value of externally supplied information from organized interests. Alternatively, in the presence of insulation and the political protections that such design choices afford, officers' minimum information threshold will decline along with the value of external information. Therefore, we expect that regulatory officers in less insulated decision-making environments will value external information more and will be more likely to seek direct and regular contact with external groups. As a result, in the presence of design parameters that institutionalize the value of external information, we expect all groups to report higher levels of access to regulators.

- H₁ All groups will report higher access in the presence of design choices that lower the political insulation of an agency's decision-making environment.

At the same time, we do not believe that all groups are created equal with respect to the quality of the information that they offer. As we noted earlier, the quality of a group's information is shaped by its ability to indicate the potential policy and, especially, political

2 The likelihood of gaining access is also a function of the utility that a given group attaches to the desire to gain access to an agency. We limit our discussion, however, to the subset of groups in a given policy community that are interested in gaining access to the agency that oversees the relevant policy domain. This limitation permits us to assume a relatively high level of interest among all groups seeking to gain access.

3 Fearing new political coalitions, elected officials may prefer to insulate an agency from *any* political interference in order to minimize their maximum regret—their political opponents having greater influence over agency affairs when they take office (Moe 1989, 1990). Therefore, such design choices are less about ideology and more about insulating agency officials from political interference of all ideological stripes. The use of design in this way is less of an offensive strategy to advance one's interests and more of a defensive strategy meant to proactively protect against some future outcome.

implications for an agency action. Rather we believe that groups possessing better means of gathering and processing high-quality information (Hansen 1991; Wright 1996) will have greater value in the exchange relationship to regulators. Moreover, the value of these groups' information will be *conditional* on the design-induced environment with certain designs increasing the utility and hence the access of certain interests over others (Macey 1992).

With high vulnerability, that is, low insulation, agency officials possess an extremely high minimum information level required to establish new policy and therefore will seek to drastically reduce the uncertainty associated with their decision making. This suggests that they will need to select a very high level of group access, granting access to the widest array of groups possible, to minimize the uncertainty associated with their actions. Accordingly, with low insulation, agency officials have little choice but to bear the costs of seeking information from the widest array of groups before making a policy decision.⁴

Alternatively, with little or no vulnerability, that is, high insulation, agency officials possess a relatively low minimum information level required to establish new policy and can obtain their minimal informational needs with less information gathering. These minimal informational needs can be efficiently met by granting access only to those groups offering high-quality information. The efficient outcome then is for officials to select a lower level of group access to fulfill their informational needs, granting access only to those select groups who can provide the necessary information. Although officials could grant access to a larger number of groups offering lower quality information, this strategy would unnecessarily waste valuable resources. Simply put, with greater insulation, officials possess the capacity to be selective about their information searches. Therefore, we expect that the effect of insulatory agency design choices on reported access is conditional on the quality of information offered by a group.

- H₂ Under increasingly insulated decision-making environments, groups offering low-quality information will report lower levels of access compared to groups offering high-quality information.

RESEARCH DESIGN

To test our theory, we focus on state-level air quality regulation in the United States. Examining a single policy arena allows us to isolate both the groups that are actively involved in advocating positions and the specific design features that structure their access to agency officials. There are several advantages to focusing on state air quality regulation.

First, to ensure variation in the types of groups seeking access to the bureaucracy, it is important to investigate a policy area that is salient to varied interests. Air quality issues are generally salient and were particularly so in the last years of the Clinton administration, the time the period during which data for this article was gathered. Several important Clinton

⁴ Some may question why regulators would ever grant access to groups providing lower quality information. Given that regulators want to decrease their uncertainty over the consequences of their actions, even groups offering lower quality information may aid regulators in this effort. Previous research suggests that information gathering is likely to produce more accurate information if it derives from a greater number of sources (Austen-Smith 1993; Balla and Wright 2001; Gilligan and Krehbiel 1989; Krehbiel 1991). Therefore even though such information gathering is not costless and certain groups may offer less valuable information, the benefits of gaining more precise estimates of the consequences of their decisions are, given less insulation, worth the effort.

administration policy initiatives were in the process of being implemented (e.g., more aggressive air enforcement, several rulemaking initiatives, and implementation of emissions trading). Further, under President Clinton, the EPA had initiated important programmatic efforts at devolving policy authority to the states, including efforts to promote a more cooperative relationship between regulators and regulated entities and between the federal government and state governments (see Coglianese and Nash 2001; Foreman 2002; Murdock, Wiessner, and Sexton 2005; Rabe 2000). Accordingly, given its high salience, state air regulation provides a useful policy area to investigate our information exchange model.

Second, studying group access across the states affords the institutional variation necessary to test the enfranchisement claim (Huber, Shipan, and Pfahler 2001 posit a similar logic). The salience of air quality regulation to varied interests contributes to the external validity of the findings: exceptionally few groups in the study are single-issue groups. And while the Clean Air Act creates a federal regulatory superstructure, states retain a fundamental policy-making role, making analysis of states' administrative structure appropriate (i.e., state policy domains are unique entities). In general, despite an important federal presence, state governments still possess a great deal of flexibility in how they approach a myriad of regulatory issues, including air quality (see Hedge, Scicchitano, and Metz 1991; Rabe 2000). That is, states have direct control over key policy design choices, including how administrative agencies are structured.

To test how design choices shape interest group access to agency officials, we require data on both group-reported access and institutional design features of the relevant agency. We proceeded as follows. First, we assessed group enfranchisement by considering group-reported access to state regulatory officials from data collected in a survey of state interest groups in ten states (i.e., our unit of analysis is an individual interest group). The sampling approach for this survey followed a two-stage process. To ensure a relatively diverse set of air pollution regulation problems, five US Environmental Protection Agency (EPA) regions were randomly selected (from the EPA's administrative regions), followed by the random selection of two states within the selected regions. Once those states were randomly selected, a sample frame was constructed of interest groups with a potential interest in air quality policy issues. There are no specific extant listings of interest group organizations involved in air quality policy making. As a consequence, prior to conducting the survey, an investigative effort was required to identify interest group organizations to which to send the survey.⁵ Appendix A provides a detailed explanation of the sample frame construction, the distribution of the sample, and response rate information. In addition to interest group-reported access, the survey also provided us with data on various interest group-level characteristics that may affect their self-reported access to state regulators.

Second, we assembled data on agency design parameters that vary over the state executive agency primarily responsible for air pollution regulation in the state. These original data were gathered through the analysis of primary documents such as state legislation and agency documents and supplemented with interviews of state regulatory officers in each of the state's air pollution control offices. We assess two sets of design

⁵ We did not survey individual private companies or lobbyists representing such companies. Rather, we assume that the interests of private companies will be explicitly represented by trade associations, whereas more diffuse concerns for public goods like improved air quality are represented by public interest group organizations (e.g., environmental groups).

parameters: those that influence the political insulation of both the agency's policy production and policy implementation decision-making environment. Both the survey and the collection of the original design parameters used in this study occurred between October 1999 and January 2000.

We use ordinary least squares (OLS) regression to estimate all coefficients, with standard errors clustered within state to account for the nonindependence of observations.⁶ We model group-reported access as a function of agency design parameters, the quality of group information, and a multiplicative interaction of the two. Given the interaction between two continuous variables, both the marginal effect of our design parameters as well as its standard error are conditional upon the quality of group information. Therefore, to properly test for the presence of a statistically significant marginal effect, we plot the marginal effect of each design parameter with 95% confidence intervals across the range of the group information variable. When the confidence interval around these marginal effects straddles the *x*-axis, the estimated marginal effect at that level of group information is not statistically different from zero (see Brambor, Clark, and Golder 2006).

In addition to our substantive variables, we also include several controls to account for competing explanations of group-reported access to the bureaucracy. We believe group responses may be driven by two processes. First, a group may have reported varying levels of access because it differentially valued access to the state agency. Second, a group may have reported different levels of access because agency officials differentially granted access to various groups. To isolate the effects of the design choices in which we are interested, we control for the effects of each of these processes.

Dependent Variable

Access is a broad concept, capable of reflecting a variety of relationships between actors (Hojnacki and Kimball 2001; Wright 1996). We use a definition of access that concentrates on a group's "direct and regular contact" with members of the bureaucracy. This approach is most consistent with definitions used in studies of interest group access to legislatures, where access reflects routine contacts that are used to advocate policy positions (e.g., Chin, Bond, and Geva 2000; DeGregorio 1997; Hall and Wayman 1990; Hansen 1991; Heinz et al. 1993). To measure *Interest group-reported access* to agency officials, we use a variable based on the following survey question: "If access is defined as direct and regular contacts, how much access does your organization have with state regulators on air quality issues?". The variable is measured as a seven-point scale, with (zero) "no access at all" defined as the lower bound, and (six) "a great deal of access" defined as the upper bound. The variable has a mean reported access score of 4.1 with a standard deviation of 1.8.

Agency Design and Quality of Group Information Variables

Our key independent variables assess agency design parameters as well as the expected quality of information that a group external to the agency will supply. To measure agency

6 We also estimated our models with MLE, using Stata 9.0's *ologit* routine to predict a group's categorical response. The results reported here are robust to either estimation technique. Due to the fact that our dependent variable can theoretically reflect a continuous underlying dimension of access, our OLS estimates did not predict values of the dependent variable out of seven-point range, our rather small clustered sample size, and the relative ease of testing and interpreting interaction effects with a linear model we report the OLS estimates here.

design parameters that affect the relative political insulation of the agency's decision-making process, we distinguish between design mechanisms that influence the political insulation in policy production, or the development of new rules and regulations, from those that influence policy implementation, or the enforcement of agency rules and regulations.

Agency Political Insulation: Policy Production

To assess the impact of design parameters that influence the political insulation of agency decision making in policy production, we measure the degree to which an agency's rule-making discretion is restricted *ex ante* by a statutorily defined power of the state legislature to review and amend proposed agency rules. Legislatures vary in the degree to which they are empowered to intervene in an agency's promulgation of new rules and regulations (Balla 2000). Among the US states, for example, some legislatures have a formal review power, which requires an agency to submit for review any proposed new rule or regulation. With this formal power, the legislature can review proposed rules and can reject or require an administrative agency to modify a proposed rule prior to the rule being adopted by the agency. Other legislatures have less strong review powers, serving in only an advisory role in which the agency submits proposed rules to the legislature for review and comment but the legislature has no formal power to reject or modify the rule prior to promulgation.⁷ Last, some legislatures have no review power over proposed agency rules.

Variation in these legislative review powers has been linked to agency officials' perceptions about the influence that other actors have on agency decision making. In surveys of agency officials, greater legislative authority to review agency rules resulted in agency officials having higher estimates of the legislature's influence on their activities (Gerber, Maestas, and Dometrius 2005) and lower estimates of interest group influence on their promulgation of rules and regulations (Woods 2005). Therefore, we include use a three-category ordinal variable, *Legislative Review Powers*, to assess the political insulation of the agency from this legislative review. This variable ranges from the state legislature having formal agency review powers (zero), to advisory powers only (one), to no formal review powers of agency rules (two). We collected these data from the *Book of the States*.

Agency Political Insulation: Policy Implementation

To assess the impact of design parameters that influence the political insulation of agency decision making in policy implementation, we use a measure of the decision aggregating procedures that state air pollution control officers must satisfy prior to issuing a regulatory enforcement action. These gate-keeping procedures regulate the flow of regulatory actions and can effect the flow of these procedures by dictating the availability of actions, the minimum standards for taking an action, the bureaucratic level or location (Epstein and O'Halloran 1999) at which conflicts will be resolved, and the individuals who will be tasked with resolving them (Hammond 1986). This measure captures these gate-keeping features by coding the types of actions available, restrictions on their usage, and the individuals involved in taking an action across three levels: Level I actions include all of the informal and formal notices that typically are reserved for the first step in a case of

7 Informal review of proposed agency rules does not necessarily suggest a minimal impact on an agency's level of political insulation. Knowing that such rule review will occur, we can expect agencies to be diligent in their rule proposals to avoid unnecessary political conflict.

noncompliance; Level II actions consist of formal administrative actions, which may include penalties; and Level III actions contains both civil and criminal cases filed against a noncompliant entity.

We constructed this measure from the perspective of the regulatory field officer for all fifty states. We considered an agency's "vertical depth" to be the number of entities in the direct chain of command from the field officer, who is responsible for carrying out inspections and the initial enforcement review, up to and including the individual or committee at the top of the chain of command. For example, in the state of North Dakota the Department of Environmental Quality has five levels: the Environmental Quality Commission, the Director of the department, the Air Quality control officer, the Regional director, and finally the field officers. Vertical depth across state agencies ranges from a low of five, in states like North Dakota, Vermont, Connecticut, and Delaware, to a maximum of ten in California; the average score is approximately six.

We then considered final signature authority for a regulatory action is located within the chain of command. If the top entity in the chain has final signature authority, then "final authority" is assigned a score equal to "vertical depth." If final signature authority is given to a lower entity in the chain, final authority is assigned a lower integer value, ultimately reaching 1 for the lowest entity in the chain.

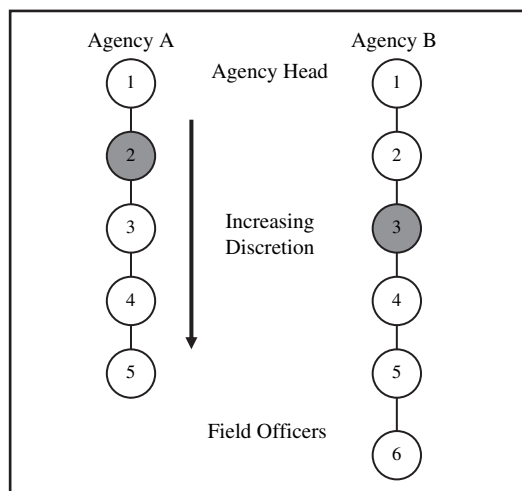
With those two considerations in mind, the variable we use to measure an agency's political insulation with respect to implementation of decision-making authority is *Signature Authority*, which is calculated by dividing (final authority – 1) by (vertical depth – 1). Figure 1 displays how this measure is calculated. This variable ranges between zero and one, where zero represents perfectly centralized decision-making authority and one represents authority decentralized to the field officer level. Increasingly higher scores indicate that an agency has moved decision-making authority closer to the field officer and further away from the central authorities. This measure is standardized by the agency's vertical depth to assure that a deeper vertical structure does not necessarily affect the overall measure of discretion.

This equation yields a measure of decentralization of authority for each of the three enforcement action levels across each state. Typically, the states have lower signature requirements for Level I actions, with an average *Signature Authority* score of 0.63. This decision-making authority is, however, centralized away from field officers as enforcement levels increase. For example, *Signature Authority* for Levels II and III actions average 0.30 and 0.18, respectively, across the states, with states ranging between zero and 0.80 for both levels.

Quality of Group Information

Interest group scholars have established that internal group resources, as indicated by paid staff and related measures, are significantly related to lobbying strategies (e.g., Gais and Walker 1991; Kollman 1998) and that group resources, such as expertise, has at least some connection to a group's lobbying success (Heinz et al. 1993). Organized groups' ability to generate policy-relevant information is a critical resource that state legislators use in their deliberations over issues (Rosenthal 1998). Moreover, groups with full-time lobbyists are more likely to gain access to multiple venues and those with higher paid lobbyists are more likely to gain access to a higher number of administrative agencies (Nownes 1999; Nownes and Freeman 1998). Indeed, Nownes and Freeman concluded that a group's resources clearly "... allows a group to advocate more and see more policymakers" (1998, 105).

Figure 1

The Location of Final *Signature Authority* across Enforcement Actions


Note: The circles in the diagram represent the vertical chain of command of Agency A and Agency B. The shaded circles represent the office, in the vertical chain of command, that possesses the final signature authority on a given enforcement action.

Ideally, we would like to have a direct measure of the quality of information that a group is able to offer. In the absence of such an ideal measure, to assess the value of the information being supplied by external groups, we use the size of an interest group's paid staff, *Group Staff* as a reasonable proxy. This measure is consistent with the previous work mentioned above that linked group resources to advocacy activity (Heinz et al. 1993; Nownes 1999; Nownes and Freeman 1998). This measure ranges from a low of zero to a high of 220, with a mean of 15.11 and a standard deviation of 30.68.⁸ To assess the conditional relationship of group resources on access as predicted by Hypothesis 2, we also create multiplicative interactions between each of the agency design variables and the group resources variable.

Control Variables

To control for whether interest groups themselves differentially value access to the state regulatory agency in question, we include several group-level control variables that we believe may influence a group's preference for regular access to state bureaucrats. First, given that the regulatory implementation process is more central to their clients' operations, industry groups may have greater interest in routine access to the bureaucracy than nonindustry groups. To this end, we included a dummy variable, *Industry Group*, which takes on the value of "one" for industry/trade association groups and "zero" for environmental and other public interest organizations. Second, to control for the possibility that

⁸ As a robustness check, we also estimated our models with an alternate measure of "quality of group information," which measured a group's mass membership. This variable was only available for a reduced set (64%) of our surveyed interest groups. Our results were robust to the inclusion of this alternate measure.

groups engaging in activities in other venues (i.e., lobbying the legislative branch or litigation with the judicial branch) may be less likely to spend their time and resources on seeking direct and regular contact with bureaucratic officials (Nownes and Freeman 1998), we include a dummy variable, *Advocacy on Air Issues*, which measures each group's response to the following survey question: "Did your organization engage in any advocacy efforts (such as lobbying, litigation, rulemaking participation) on any policy issues relating to air quality in the past three years?". We coded groups who had engaged in recent direct advocacy as a one and for those who had not as a zero. Last, distinct from their ability to produce information, groups with national affiliations may differentially value access to state agencies compared to groups without such affiliations. Groups with a national affiliation may value state agency access less because of their potential to pursue their interests in other venues in the federal system (Baumgartner and Jones 1993; Kollman 1998). To control for such possible effects, we included a dummy variable, *National Affiliate*, which was coded one for groups who are an affiliate of a national organization and zero for those who are not.

To control for other factors that may shape an agency's differential treatment of groups, we include two additional variables that may shape the value of external information to agency officials. State air pollution programs with relatively higher budgetary capacity compared to the overall state capacity should be less dependent upon external sources of information compared to those state air programs that receive relatively lower priority in terms of spending. Moreover, regulatory officials in more uncertain political environments may value external information more than colleagues in more certain environments. Therefore, to control for these two possibilities, we include a measure of *Agency Information Capacity* by using the proportion of a state's overall environmental program spending that is spent on the state's air pollution abatement program in the time period prior to the execution of the interest group survey (figures from the *Book of the States* 1998–1999). In addition, we include the variable, *Political Uncertainty*, which measures the uncertainty of the political environment using the Ranney index of party competition in the state between 1994 and 1998 (Bibby and Holbrook 1999). This variable reflects the duration of party control in both executive and legislative elections (see Bibby and Holbrook 1999 for a complete description) and as such indicates the degree of competition in the state political institutions, regardless of party. The folded Ranney index ranges from 0.5 to 1.0, where 0.5 represents no competition and 1.0, perfect competition.

RESULTS

Table 1 presents the analysis of groups' reported access to state regulators, using the design parameters that shape the relative degree of insulation existing in an agency's decision-making environment for both policy production and policy implementation. Models 1, 2, and 3 report the estimates of the additive models that include both the *Legislative Review* and the three levels of *Signature Authority* design parameters, respectively.

With respect to our main variables of interests, the size of a group's staff does not have any direct impact on group reported access, in the model. However, the results suggest that the structural and procedural design choices that define the degree of political insulation of an agency's decision-making environment do in fact result in differential access to external groups. For example, the design choice that increases the insulation of the agency from legislative review of agency actions decreases reported access across all

Table 1
The Determinants of Group Reported Access to State Regulators

Independent Variables	Model 1 Design Parameters Included	Model 2 Design Parameters Included	Model 3 Design Parameters Included
Context variables			
National affiliate	−0.178 (0.355)	−0.184 (0.350)	−0.186 (0.347)
Advocacy on air issues	−0.414 (0.474)	−0.411 (0.486)	−0.353 (0.477)
Industry group	0.908** (0.413)	0.913** (0.405)	0.947*** (0.381)
Political uncertainty	0.116 (0.258)	−0.136 (0.315)	−0.008 (0.274)
Agency information capacity	−7.407*** (2.433)	−7.414*** (2.044)	−6.548*** (2.023)
Group staff	0.002 (0.003)	0.003 (0.003)	0.003 (0.003)
Agency design parameters			
Review powers	−0.596*** (0.102)	−0.447*** (0.123)	−0.638*** (0.115)
Signature authority (L1)	−0.629* (0.415)	—	—
Signature authority (L2)	—	−0.697** (0.341)	—
Signature authority (L3)	—	—	−1.332*** (0.298)
Constant	6.450*** (0.973)	6.183*** (0.984)	6.343*** (0.859)
R ²	0.17	0.17	0.18
F value (d.f.)	875.69*** (8, 9)	345.18*** (8, 9)	3201.57*** (8, 9)
Number of cases	114	114	114

Note: Coefficients are unstandardized OLS regression coefficients. Robust standard errors, clustered by state, appear in parentheses. The dependent variables for each of the models are interval level variables, ranging from 0 to 6 and indicate group reported access to state regulators; higher values indicate higher levels of group reported access. d.f. = degree of freedom.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$, one-tailed tests.

groups, with a decrease in reported access of approximately 1.2 points on our scale when we move from a state legislature with formal review powers (zero) to one with no review powers (two) over an agency's rule proposals. As state regulators find themselves in increasingly more insulated decision-making environments with respect to policy production (the writing of regulatory rules on air pollution), they place lower utility on externally supplied information. A similar pattern emerges in policy implementation (enforcement actions).

The significant coefficients on the *Signature Authority* for Levels II and III suggest that as the level of political insulation afforded to state regulators in policy implementation rises, interests groups across all types report lower regular access to state regulators. Substantively this suggests that as the locus of decision making on policy implementation decision in state air pollution control is located further down an agency's chain of command, groups will on average report lower access to state regulatory officials. Indeed, comparing the coefficients in Model 3 with those in Model 4, this insular effect almost doubles in substantive impact from a 1-unit increase in insulation on Level II decisions provoking a 0.7 decrease on our access scale to the same 1-unit increase in insulation on Level III decisions provoking a nearly a 1.3-unit shift on our access scale. For Level I actions, the coefficient is not significant, suggesting that changes in political insulation on Level I actions, such as who issues warnings and letters of deficiency, do not necessarily impact group access to state regulators.

With respect to the control variables, the results are generally consistent with our expectations. The utility that state regulators assign to externally supplied information from interest groups is in part shaped by the regulators' information capacity and group characteristics. These findings were consistent with our expectations. However, after

controlling for their informational capacity, there is no independent effect of the uncertainty of the state's political environment on group reported access.

On the whole, these results offer support for our Hypothesis 1. Across both domains of policy—production (writing rules) and implementation (enforcement actions)—the two key design choices affecting the insulation of an agency's decision environment affords state regulators greater independence in their affairs and less reliance upon externally supplied information. But what of our notion that some groups may be better equipped to provide high-quality information to state regulators? Is the effect of structural design choices on group reported access conditional on the quality of information that groups offer?

Table 2 reports the findings from models that estimate the conditional effects between agency design parameters and group staff, our measure of information quality.⁹ The results in table 2 suggest that the impact of agency design on group-reported access is indeed conditional on the quality of group information in policy implementation. The coefficients on the interaction terms are both significant and in the expected direction given our assertion in Hypothesis 2. The interaction term for the policy production variable is not significant. However, given that the interaction terms include continuous variables and conditional standard errors, to properly test our hypothesis, we need to test whether the marginal effect of a given design parameter is significant over the entire range of the group staff variable. Insignificant interaction terms could in fact conceal a significant marginal effect over at least part of the range of a group's staff size.

Figure 2 displays the marginal effect of the agency's insulation in policy production on group reported access, conditioned on the size of the group's paid staff, with 95% confidence intervals plotted around this marginal effect. Specifically, the figure reports the marginal effect of a 1-unit increase in the *Legislative Review Power* scale (increasing political insulation) on reported access.

The effect of this design parameter on group reported access is conditional on group resources. For small groups, increasing the insulation of the bureaucracy with respect to policy production decisions (i.e., there is no legislative review of an agency's actions) results in a marginal decrease in these groups' reported access. The marginal effect of increasing the insulation of an agency is negative for groups smaller than approximately 125 professional staff. This effect is not significant for the entire range of group staff however (noted by the confidence interval straddling the x -axis). Indeed, increasing the level of insulation in an agency's policy production by limiting the legislature's role to review its rule proposals has no impact on group-reported access on behalf of groups with staffs larger than 125. This finding offers support for Hypothesis 2. State regulators in an insulated policy production environment do not value all groups equally. Rather, insulation affords them the opportunity to be more selective with their choice of externally supplied information.

This finding is supported as well by the results for the political insulation of policy implementation decisions. Figures 3, 4, and 5 reports the marginal effect of a 1-unit increase (increasing political insulation) in the relevant *Signature Authority* scale on reported access.

9 Due to high multicollinearity between the interaction terms, Models 1 through 4 only report one design parameter with its group size interaction.

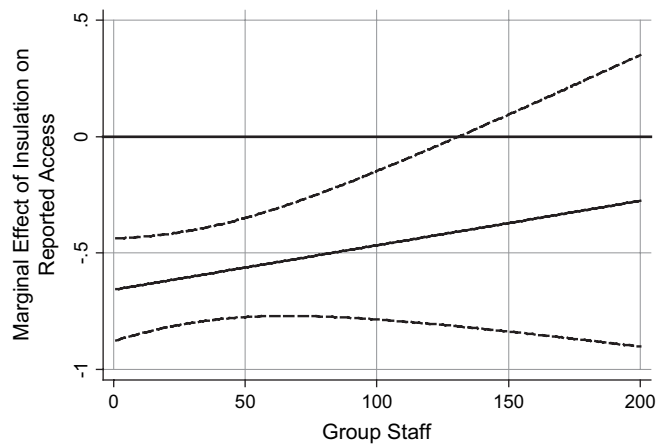
Table 2
The Determinants of Group Reported Access to State Regulators

Independent Variables	Model 1 Group Access	Model 2 Group Access	Model 3 Group Access	Model 4 Group Access
Context variables				
National affiliate	−0.201 (0.331)	−0.203 (0.358)	−0.166 (0.360)	−0.211 (0.357)
Advocacy on air issues	−0.299 (0.448)	−0.390 (0.490)	−0.453 (0.519)	−0.292 (0.539)
Industry group	0.976*** (0.377)	1.031*** (0.436)	0.943*** (0.399)	1.125*** (0.443)
Political uncertainty	−0.064 (0.261)	−0.077 (0.457)	−0.315 (0.468)	−0.253 (0.378)
Agency information capacity	−8.406*** (2.585)	−5.347* (3.178)	−5.447** (2.497)	−4.216* (3.091)
Group staff	−0.001 (0.004)	−0.016 (0.011)	−0.001 (0.003)	−0.012 (0.010)
Agency design parameters				
Legislative review powers	−0.639*** (0.093)	—	—	—
Legislative review × group staff	0.002 (0.002)	—	—	—
Signature authority (L1)	—	−0.961** (0.582)	—	—
L1 × group staff	—	0.027* (0.017)	—	—
Signature authority (L2)	—	—	−1.301*** (0.362)	—
L2 × group staff	—	—	0.013*** (0.005)	—
Signature authority (L3)	—	—	—	−1818*** (0.546)
L3 × group staff	—	—	—	0.058** (0.033)
Constant	6.261*** (0.937)	5.443*** (0.955)	5.469*** (1.015)	5.126*** (0.960)
R ²	0.17	0.14	0.16	0.15
F value (d.f.)	164.85*** (8, 9)	63.36*** (8, 9)	100.27*** (8, 9)	8.13*** (8, 9)
Number of cases	114	114	114	114

Note: Coefficients are unstandardized OLS regression coefficients. Robust standard errors, clustered by state, appear in parentheses. The dependent variables for each of the models are interval level variables, ranging from 0 to 6 and indicate group reported access to state regulators; higher values indicate higher levels of group reported access. d.f. = degree of freedom.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$, one-tailed tests. d.f. = degree of freedom.

Figure 2
Marginal Effect of *Legislative Review* on Reported Access across Group Staff



Note: Dashed lines represent the 95% confidence interval around the estimate of the marginal effect.

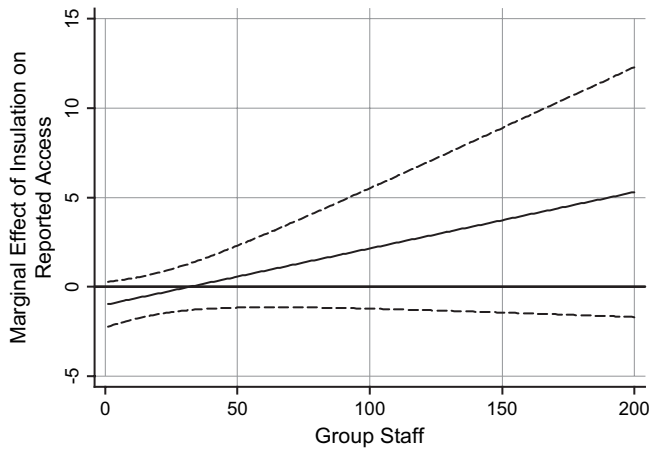
The marginal effects of increasing regulators’ political insulation on Level I actions in policy implementation are not significant over the entire range of the group staff variable. As a result, we conclude that the effects of design choices over insulation for these Level I actions on group access are not conditioned by group size and, in conjunction with table 1, is not significant in structuring group reported access. This is not the case for design parameters that affect Level II and Level III decision making in policy implementation. These design parameters are conditional on group resources and are significant over smaller values of the group staff variable, suggesting that increasing political insulation on these decision-making domains has a significant negative impact on group reported access for those groups offering lower quality information (i.e., smaller staffs) while having no effect on groups with larger more professional staffs. In fact for Level II actions, the effect is significant for those groups smaller than approximately 40 staff members and for Level III actions for those groups smaller than approximately 20 members. A 1-unit increase in political insulation (i.e., decision making located lower on the agency’s chain of command) over Level II actions results in a decrease of reported access of approximately 1.36 units on our access scale for a group with one professional staff member. The same 1-unit increase in political insulation over Level II actions, for a group with 34 professional staff members, leads to a decrease of approximately only 0.88 units on our reported access scale. A similar pattern holds for the impact of political insulation of Level III actions on group reported access.¹⁰

When encountering a more insulated bureaucracy with respect to policy implementation decisions (i.e., decision making located lower on the agency’s chain of command), well-staffed groups report higher access, whereas groups with fewer staff report lower regular access to regulatory officers. Design choices that encourage greater political

¹⁰ We also examined the possibility that the effects of design choices on group reported access were conditioned by the policy interests that a groups represents. To test this possibility, we interacted the *industry* variable with each of our structural design parameters. In no case, was the impact of design conditioned by group type.

Figure 3

Marginal Effect of *Signature Authority* (Level I) on Reported Access across Group Staff



Note: Dashed lines represent the 95% confidence interval around the estimate of the marginal effect.

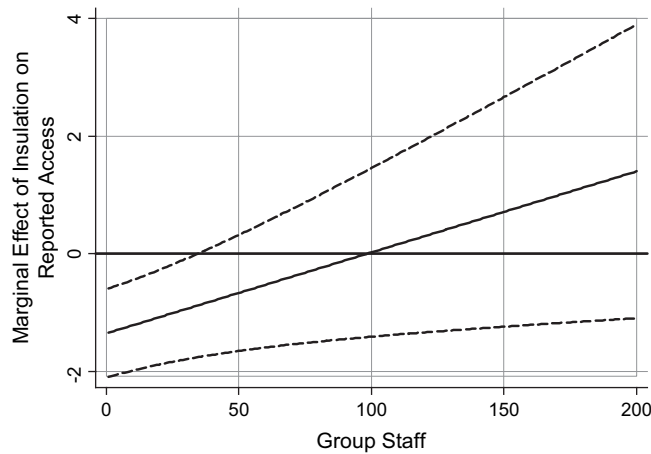
insulation in both the production and implementation phases of bureaucratic policy making allow state regulators to be more selective in their need for external information.

CONCLUSION

In politically uncertain climates, legislators have incentives to protect their policies by using design choices that insulate bureaucratic officials from incoming political coalitions. Yet, there is little known about the consequences of such design choices on the activities of interest groups. This gap in the literature existed because scholars had not developed a theory of the microfoundations of this process. We provide such a theory in this article. The results reported in this article clarify these design consequences and in doing so emphasize the role that institutional context plays in structuring the degree to which interest groups interact with the bureaucracy. We find that design choices that insulate the bureaucracy systematically advantage groups with greater organizational capacity with which to convey high-quality information at the expense of groups with lower capacity. In this respect, our results have significant implications for understanding the politics of democratic governance of and interest group representation before the bureaucracy. Equally important, these results also help clarify the role that design choices play in public policy delivery.

With respect to democratic governance, we offer mixed evidence of whether elected officials can play the insulation game without further diminishing the public accountability of the bureaucracy. Given the important fire-alarm oversight role played by private groups in overseeing agency activities (McCubbins and Schwartz 1984; Potoski 2001; Ringquist 1993; Yackee 2005; Yackee and Yackee 2006), our results suggest that an additional consequence of insulation may be a weakening of this oversight. When design choices create insulation, groups report lower access to agency officials, suggesting a potential loss of oversight on these officials' activities. However, the findings also suggest that this

Figure 4
Marginal Effect of *Signature Authority* (Level II) on Reported Access across Group Staff



Note: Dashed lines represent the 95% confidence interval around the estimate of the marginal effect.

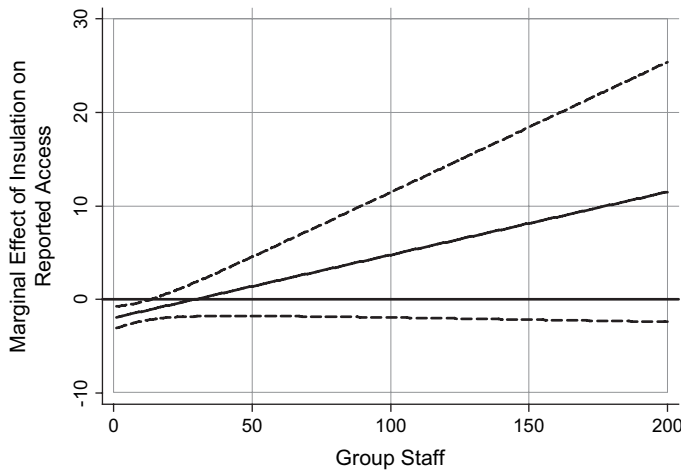
reduced access is not absolute. Rather, groups with high organizational capacity are unaffected by insulatory design choices. In this respect, one specific cost associated with the insulation game is the reduction in private interest fire-alarm capacity among certain groups—those with smaller organization staffs and memberships. Indeed, these results imply an insulation bias *against* smaller citizen interest groups and *toward* more well-funded mass membership groups.

This finding is particularly relevant given that not all legislatures possess similar capacities with which to engage in oversight of the bureaucracy (Huber and Shipan 2002; Huber, Shipan, and Pfahler 2001; Squire 1992). Legislatures with relatively low informational capacity rely more heavily on private interests for policy information and fire-alarm oversight (Cohen 1997; Mooney 1993) and therefore may be more vulnerable to the pattern of reduced group access that we observe in our results. Consequently, insulation may be especially costly for coalitions serving in less-professionalized legislatures. Without their own resources to engage in bureaucratic oversight, legislators in less-professionalized settings may further undermine democratic accountability over the bureaucracy by insulating an agency from smaller scaled citizen groups. Precisely the opposite effect in which so-called “citizen” legislatures may be interested. Without carefully weighing the costs of using insulatory design, elected leaders attempting to resolve one dimension of the delegation problem may unknowingly exacerbate another.

Our analysis also has implications for models of interest group representation and influence over the bureaucracy. Our results emphasize the need for bureaucracy and interest group scholars to account for the role of institutional context in shaping group access. Investigating the nature of interest group influence over bureaucratic policy deliberations has received significant attention recently (Balla and Wright 2001; Furlong 1997; Golden 1998; Yackee 2005; Yackee and Yackee 2006). Yet, much of the work in this area either implicitly assumes, or does not consider, the selection process behind group participation in bureaucratic affairs. Our findings indicate that certain institutional arrangements may exert rather strong selection effects on the groups that gain access to the bureaucracy. Facing certain institutional arrangements (insulatory design), low-capacity groups may

Figure 5

Marginal Effect of *Signature Authority* (Level III) on Reported Access across Group Staff



Note: Dashed lines represent the 95% confidence interval around the estimate of the marginal effect.

learn the futility of pursuing certain avenues of influence (i.e., bureaucratic) compared to others (i.e., legislative, or chief executive). Accordingly, this nonrandom selection may bias scholars' estimates of how influential certain groups are in the policy process if they do not account for design-induced selection effects. Quite simply scholars can no longer assume that institutional context is unimportant in explaining group influence in bureaucratic affairs. Rather, they would benefit from recalling Hall's admonition that, "Before we can understand how collective decisions emerge from games played by players with (imputed) preferences, we must first understand why members decide to become players" (1996, 250). Our analysis shows that institutional design choices shape what types of groups become active players. Moreover, given these effects, certain interest groups will have strong incentives to pursue the use of insulatory design choices. As several scholars of bureaucratic politics have noted, the interplay between interest groups and legislative coalitions may shape the very institutional context in which groups operate (McNollgast 1987, 1989; Moe 1989, 1990). This article provides evidence to encourage further research on measuring the influence of interest group efforts on the very design of particular institutional choices.

Last, our work suggests possible implications for public policy delivery. Within the policy literature, scholars have offered a variety of theoretical frameworks of the policy process (i.e., Baumgartner and Jones 1993; Ostrom 1986; Sabatier 1988). Each of these frameworks underscores the importance of information supply in policy delivery. Our results suggest that insulatory design choices may play a critical role in altering the relationship between agency officials and private interests in a policy domain, inducing officials to ignore certain groups based upon perceptions of the informational value that they offer. Such selective information gathering may have important consequences for policy delivery by biasing policy decisions against those smaller groups in the policy process. As a result, the policy delivered by an insulated agency may have distinctly different flavor based upon the fact that certain groups were denied access to policymakers due to institutional context.

APPENDIX

Explanation of Survey Data Collection

Interest groups with potential interest in air quality regulatory issues were surveyed in 10 states. The decision to limit the survey as such was based on practical resource constraints. To ensure a relatively diverse set of regulatory problems, political conditions, and geographic conditions, the states were chosen by a stratification method. Five US EPA regions were chosen at random, and then two states were randomly selected from each of those regions.

Specification of a sample frame of interest groups with potential involvement in air quality regulation proceeded through the use of several sources. Prominent environmental and industry and public health organizations in each state were contacted to ask if they could identify interest group organizations of any type in their state who were actively engaged on air quality policy issues over the past several years. Interest group searches by state were conducted using the Associations Unlimited database (<http://infotrac.galenet.com>). State lobbying registries were examined to identify organizations with potential interests in air quality issues. State environmental agencies were contacted to find if they could help identify “stakeholder” interest groups. And finally, newspaper articles in each state for stories using the subject heading “air pollution” (using the Lexis/Nexis database) were examined in order to seek out mention of any interest group organizations that were not found in any of the aforementioned sources.

Once a sample frame of interest groups with a potential interest in air quality issues was identified, a mail survey was sent to senior personnel at each organization (e.g., executive directors, organization presidents, governmental affairs directors). In all, surveys were sent to a total of 243 organizations in the selected 10 states in October 1999. Reminder messages were sent twice in the following 2 months to nonrespondents. By January of 2000, 112 completed or partially completed surveys were returned. Four surveys were returned indicating no involvement in air quality issues, reducing the total sample size to 239. The remainder of sample fell into the nonresponse category, making the cooperation rate 46.9%, using RR6 as defined by the American Association for Public Opinion Research (2004).

Table A1
The Interest Group Survey

EPA Region	States Selected	Number of Groups	Cooperation Rate (%)
Region 2	New York	46	35
	New Jersey	21	43
Region 5	Wisconsin	32	59
	Indiana	24	54
Region 6	Texas	38	50
	Oklahoma	17	59
Region 8	Montana	18	50
	Wyoming	7	100
Region 10	Oregon	20	45
	Washington	16	31

Note: 239 Membership-based interest groups (including trade associations) surveyed 112 usable responses; overall cooperation rate: 46.9%.

REFERENCES

- American Association for Public Opinion Research. 2004. *Standard definitions: Final dispositions of case codes and outcome rates for surveys*. Lenexa, KS: AAPOR.
- Arnold, R. Douglas. 1987. Political control of administrative officials. *Journal of Law, Economics, and Organization* 3:219–86.
- Austen-Smith, David. 1993. Information and influence: Lobbying for agendas and votes. *American Journal of Political Science* 37:799–833.
- . 1995. Campaign contributions and access. *American Political Science Review* 89:566–81.
- Balla, Steven J. 2000. Legislative organization and congressional review of agency regulations. *Journal of Law, Economics, and Organization* 16:424–48.
- Balla, Steven J., and John R. Wright. 2001. Interest groups, advisory committees, and congressional control of the bureaucracy. *American Journal of Political Science* 45:799–812.
- Baumgartner, Frank, and Bryan Jones. 1993. *Agendas and instability in American politics*. Chicago, IL: Univ. of Chicago Press.
- Bawn, Kathleen. 1995. Political control versus expertise: Congressional choice about administration procedures. *American Political Science Review* 89:62–73.
- Bibby, John F., and Thomas Holbrook. 1999. Parties and elections. In *Politics in the American states*, 4th ed., ed. V. Gray, H. Jacob, and Thomas K. Vines, 78–121. Boston, MA: Little, Brown.
- Birkland, Thomas. 2006. *Lessons of disaster: Policy change after catastrophic events*. Washington, DC: Georgetown Univ. Press.
- Brambor, Thomas, William Clark, and Matt Golder. 2006. Understanding interaction models: Improving empirical analyses. *Political Analysis* 14:63–82.
- Calvert, Randall L., Mathew D. McCubbins, and Barry R. Weingast. 1989. A theory of political control and agency discretion. *American Journal of Political Science* 33:588–611.
- Chin, Michelle L., Jon R. Bond, and Nehemia Geva. 2000. A foot in the door: An experimental study of PAC and constituency effects on access. *Journal of Politics* 62:534–49.
- Coglianesi, Cary, and Jennifer Nash, eds. 2001. *Regulating from the inside: Can environmental management systems achieve policy goals?* Washington, DC: Resources for the Future Press.
- Cohen, Nevin. 1997. The politics of environmental risk: perceptions of risk assessment in the state legislatures. *Policy Studies Journal* 25 (3): 470–84.
- De Figueiredo, Rui J. P., Jr. 2002. Electoral competition, political uncertainty, and policy insulation. *American Political Science Review* 96:321–33.
- . 2003. Budget institutions and political insulation: Why states adopt the item veto. *Journal of Public Economics* 87:2677–701.
- De Figueiredo, Rui J. P., Jr., and Richard Vanden Bergh. 2004. The political economy of state-level administrative procedure acts. *Journal of Law and Economics* 47:569–88.
- DeGregorio, Christine. 1997. *Networks of champions: Leadership, access and advocacy in the U.S. House of Representatives*. Ann Arbor: Univ. of Michigan Press.
- Denzau, Arthur T., and Michael C. Munger. 1986. Legislators and interest groups: How unorganized interests get represented. *American Political Science Review* 80:89–106.
- Epstein, David, and Sharyn O'Halloran. 1994. Administrative procedures, information, and agency discretion. *American Journal of Political Science* 38:697–722.
- . 1999. *Delegating powers: A transaction cost politics approach to policy making under separate powers*. Cambridge, UK: Cambridge Univ. Press.
- Ferejohn, John A. 1987. The structure of agency decision processes. In *Congress, structure and policy*, ed. M. McCubbins and T. Sullivan, 441–61. Cambridge: Cambridge Univ. Press.
- Foreman, Christopher H., Jr. 2002. The civic sustainability of reform. In *Environmental governance: A report on the next generation of environmental policy*, ed. D. F. Kettl, 146–76. Washington, DC: Brookings Institution Press.
- Furlong, Scott R. 1997. Interest group influence on rulemaking. *Administration and Society* 29:325–48.
- Gais, Thomas L., and Jack L. Walker. 1991. Pathways to influence in American politics. In *Mobilizing interest groups in America*, ed. Jack L. Walker, 103–22. Ann Arbor: Univ. of Michigan Press.

- Gerber, Brian J., Cherie D. Maestas, and Nelson C. Dometrius. 2005. State legislative influence over agency rulemaking: The utility of ex ante review procedures. *State Politics and Policy Quarterly* 5:24–46.
- Gilligan, Thomas W., and Keith Krehbiel. 1989. Asymmetric information and legislative rules with a heterogeneous committee. *American Journal of Political Science* 33:459–90.
- Golden, Marissa Martino. 1998. Interest groups in the rule-making process: Who participates? Whose voices get heard? *Journal of Public Administration Research and Theory* 8:245–70.
- Gormley Jr., William T. 1986. Regulatory issue networks in a federal system. *Polity* 18 (4): 595–620.
- Gormley Jr., William, and Steven Balla. 2004. *Bureaucracy and democracy: Accountability and performance*. Washington, DC: CQ Press.
- Hall, Richard H. 1996. *Organizations: Structures, processes, and outcomes*. Englewood Cliffs, NJ: Prentice Hall.
- Hall, Richard L., and Frank W. Wayman. 1990. Buying time: Moneyed interests and the mobilization of bias in congressional committees. *American Political Science Review* 84:797–820.
- Hamilton, James T., and Christopher H. Schroeder. 1994. Strategic regulators and the choice of rulemaking procedures: The selection of formal vs. informal rules in regulating hazardous waste. *Law and Contemporary Problems* 57:111–60.
- Hammond, Thomas H. 1986. Agenda control organizational structure and bureaucratic politics. *American Journal of Political Science* 30:379–420.
- Hansen, John Mark. 1991. *Gaining access: Congress and the farm lobby 1919–1981*. Chicago, IL: Univ. of Chicago Press.
- Hedge, David, Michael Scicchitano, and Patricia Metz. 1991. The principal-agent model and regulatory federalism. *Western Political Quarterly* 44:1055–80.
- Heinz, John P., Edward O. Laumann, Robert L. Nelson, and Robert H. Salisbury. 1993. *The hollow core: Private interests in national policymaking*. Cambridge, MA: Harvard Univ. Press.
- Hill, Jeffery, and James Brazier. 1991. Constraining administrative decisions: A critical examination of the structure and process hypothesis. *Journal of Law, Economics, and Organizations* 7: 373–400.
- Hojnacki, Marie, and David C. Kimball. 2001. PAC contributions and lobbying contacts in congressional committees. *Political Research Quarterly* 54:161–80.
- Holden, Matthew. 1966. Imperialism in bureaucracy. *American Political Science Review* 60:943–51.
- Hrebennar, Ronald. 1997. *Interest group politics in America*. Armonk, NY: M.E. Sharpe.
- Huber, John D., Charles R. Shipan. 2002. *Deliberate discretion*. Cambridge: Cambridge Univ. Press.
- Huber, John D., Charles R. Shipan, and Madelaine Pfahler. 2001. Legislatures and statutory control of bureaucracy. *American Journal of Political Science* 45:330–45.
- Hunter, Susan, and Richard W. Waterman. 1996. *Enforcing the law: The case of the clean water acts*. Armonk, NY: M.E. Sharpe.
- Hyneman, Charles. 1950. *Bureaucracy in a democracy*. New York: Harper and Row.
- Khademian, Anne M. 1992. *SEC and capital market regulation: The politics of expertise*. Pittsburgh, PA: Univ. of Pittsburgh Press.
- . 2002. *Working with culture: How the job gets done in public programs*. Washington, DC: Congressional Quarterly Press.
- Kim, Junseok and Brian J. Gerber. 2005. Bureaucratic leverage over policy choice: explaining the dynamics of state-level reforms in telecommunications regulation. *Policy Studies Journal* 33 (4): 613–634.
- Kollman, Ken. 1998. *Outside lobbying: Public opinion and interest group strategies*. Princeton, NJ: Princeton Univ. Press.
- Krehbiel, Keith. 1991. *Information and legislative organization*. Ann Arbor: Univ. of Michigan Press.
- Macey, Jonathan R. 1992. Organizational design and political control of administrative agencies. *Journal of Law, Economics, and Organization* 8:93–125.
- McCubbins, Mathew D. 1985. Legislative design of regulatory structure. *American Journal of Political Science* 29:721–48.

- McCubbins, Mathew, Roger Noll, and Barry Weingast. 1987. Administrative procedures as instruments of political control. *Journal of Law, Economics, and Organization* 3:243–77.
- . 1989. Structure and process; politics and policy: Administrative arrangements and the political control of agencies. *Virginia Law Review* 75:431–82.
- McCubbins, Mathew, and Thomas Schwartz. 1984. Congressional oversight overlooked: Police patrols versus fire alarms. *American Journal of Political Science* 28:165–79.
- Moe, Terry. 1984. The new economics of organization. *American Journal of Political Science* 28:739–77.
- . 1989. The politics of bureaucratic structure. In *Can the government govern?* ed. J. E. Chubb and P. E. Peterson, 269–329. Washington, DC: Brookings Institution Press.
- . 1990. The politics of structural choice. In *Organization theory: From Chester Barnard to the present and beyond*, ed. Oliver E. Williamson, 116–53. Oxford: Oxford Univ. Press.
- Mooney, Christopher. 1993. Strategic information search in state legislative decision-making. *Social Science Quarterly* 74:185–98.
- Murdock, Barbara S., Carol Wiessner, and Ken Sexton. 2005. Stakeholder participation in voluntary environmental agreements: Analysis of 10 project XL case studies. *Science, Technology, and Human Values* 30:223–50.
- Niskanen, William. 1971. *Bureaucracy and representative government*. Chicago, IL: Aldine-Atherton.
- Nownes, Anthony. 1999. Solicited advice and lobbyist power: Evidence from three American states. *Legislative Studies Quarterly* 24:113–23.
- Nownes, Anthony, and Patricia Freeman. 1998. “Interest group activity in the states.” (With Patricia Freeman). *Journal of Politics* 60:86–112.
- Ostrom, Elinor. 1986. An agenda for the study of institutions. *Public Choice* 48:3–25.
- Potoski, Matthew. 1999. Managing uncertainty through bureaucratic design: Administrative procedures and state air pollution control agencies. *Journal of Public Administration Review and Theory* 4:623–39.
- . 2001. Clean air federalism: Do states race to the bottom? *Public Administration Review* 61:335–42.
- Rabe, Barry G. 2000. Power to the states: The promise and pitfalls of decentralization. In *Environmental policy: New directions for the twenty-first century*, ed. N. J. Vig and M. E. Kraft, 33–56. Washington, DC: CQ Press.
- Ringquist, Evan J. 1993. *Environmental protection at the state level: Politics and progress in controlling pollution*. Armonk, NY: M.E. Sharpe.
- Ripley, Randall, and Grace Franklin. 1986. *Policy implementation and bureaucracy*. Chicago: Dorsey Press.
- Rosenthal, Alan. 1998. *The decline of representative democracy: Process, participation, and power in state legislatures*. Washington, DC: Congressional Quarterly Press.
- Sabatier, Paul. 1988. An advocacy coalition framework of policy change and the role of policy-oriented learning therein. *Policy Sciences* 21:129–68.
- Sabatier, Paul, and Hank Jenkins-Smith. 1993. *Policy change and learning: An advocacy coalition approach*. Boulder: Westview Press.
- Spence, David B. 1997. Agency policy making and political control: Modeling away the delegation problem. *Journal of Public Administration Research and Theory* 7:199–220.
- . 1999. Agency discretion and the dynamics of procedural reform. *Public Administration Review* 59:425–42.
- Squire, Peverill. 1992. Legislative professionalization and membership diversity in state legislatures. *Legislative Studies Quarterly* 17:69–79.
- Volden, Craig. 2002. Delegating power to bureaucracies: Evidence from the states. *Journal of Law Economics and Organization* 18 (1): 187–220.
- Waterman, Richard W., Amelia A. Rouse, and Robert L. Wright. 2004. *Bureaucrats political and the environment*. Pittsburgh, PA: Univ. of Pittsburgh Press.
- West, William F. 2004. Formal procedures, informal processes, accountability, and responsiveness in bureaucratic policymaking: An institutional policy analysis. *Public Administration Review* 64:66–80.

- Whitford, Andrew. 2002. Decentralization and political control of the bureaucracy. *Journal of Theoretical Politics* 14:167–93.
- Wilson, James Q. 1989. *Bureaucracy: What government agencies do and why they do it*. New York: Basic Books.
- Wood, B. Dan, and Richard Waterman. 1994. *Bureaucratic dynamics: The role of bureaucracy in a democracy*. Boulder: Westview Press.
- Woods, Neil. 2005. Interest group influence on state administrative rule making. *American Review of Public Administration* 35:402–13.
- Wright, John R. 1996. *Interest groups and Congress: Lobbying, contributions, and influence*. Boston, MA: Allyn and Bacon.
- Yackee, Jason Webb and Susan Webb Yackee. 2006. A bias towards business? Assessing interest group influence on the U.S. bureaucracy. *Journal of Politics* 68:128–39.
- Yackee, Susan Webb. 2005. Sweet-talking the fourth branch: The influence of interest group comments on federal agency rulemaking. *Journal of Public Administration Research and Theory* 16:103–24.