

Measuring the Legislative Design of Judicial Review of Agency Actions

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When Congress writes and passes statutes, it can include detailed provisions designating how judicial review of agency actions will operate. Yet despite their importance, empirical research has suffered from a lack of a systematic measure or assessment of these review provisions. In this project, we create a new measure of exposure to judicial review by hand-coding judicial review provisions in the text of significant legislation from 1947 to 2016. We identify five categories of review provisions, including language that describes the reviewability of agency decisions, time limits for petitioning courts, the scope of review, court venue, and standing. Utilizing these attributes, we construct latent indexes of exposure to the judiciary, including law-specific and agency-specific versions of these indexes. We then examine the validity of these measures of agency exposure to judicial review by assessing their covariation with litigation, discretion, and independence. Our data create possibilities for future research on how Congress can strategically attempt to influence other branches as well as insight into interactions among the branches in a separation-of-powers system.

JEL Codes: K1 – Basic areas of law, H1 – Structure and Scope of Government

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1. Introduction

Government agencies produce the majority of public policies in the United States. The textbook version of how agency policymaking proceeds is relatively straightforward to describe, at least in broad outline. First, Congress writes laws that delegate policymaking responsibility to an agency. Second, the agency develops a policy or policies. And third, a court reviews the agency's actions.

How the courts act in this last stage is determined in part by judicial actors themselves, of course, and is affected by the views of judges toward agency expertise, canons of statutory interpretation, and a host of other factors. But how this last stage plays out also can be affected by another political actor: Congress. When Congress writes laws that delegate power to agencies—something that virtually every major law does (Clouser McCann and Shipan 2021)—it has the opportunity to structure the process of judicial review of agency actions by establishing the rules that the courts should follow. In so doing, it can attempt to increase the likelihood of review, exposing agency actions to judicial reconsideration. Alternatively, it can take steps to decrease the likelihood of review, protecting agencies from judicial intrusion.

Our goal in this paper is to develop a measure of judicial review of agency action in congressional statutes, one that captures the idea of agency exposure to judicial review.¹ Surprisingly, as we will detail shortly, little systematic evidence exists regarding Congress's activity with respect to the design of judicial review of agencies. Thus, we begin by identifying the types of provisions Congress can use to influence review of agency actions, providing illustrative examples of each type. Next, we develop a coding scheme for systematically detecting and classifying the use of these review provisions in existing statutes. We use this approach to code hundreds of laws from the past seven decades, which reveals the types of judicial review provisions Congress has included in laws and shows their frequency. In sum, we provide the first systematic portrait of how, when, and in what manner Congress anticipates judicial review of agency actions.

Using these data, we then turn to our main task: creating a measure of exposure to judicial review. We utilize a mixed factor, one-dimensional Bayesian latent variable model to create an index that captures the extent to which laws either expose agencies to judicial review or insulate them from it, an approach that has the advantage of combining various types of provisions into a single measure (Martin and Quinn 2002).² We complement these static, cross-sectional measures by creating additional

1. In developing this measure, we focus exclusively on Congress's option to include such provisions in law. Once this is established and we construct our measure, future studies can then use the measure to investigate the separate question of the extent to which these provisions constrain judges. We return briefly to this issue in Section 4.4.

2. Replication files and all scores will be made available upon publication.

scores using a dynamic item response (IRT) latent variable model (Imai, Lo, and Olmsted 2020). Thus, overall we develop three distinct (although related) measures—one that focuses on *laws* as the unit of analysis, in order to provide a measure of exposure to judicial review for each law we examine, and two that focus on *agencies* (one that is cross-sectional and one that is dynamic), allowing us to see which agencies Congress has chosen to insulate from judicial review and which it has decided to expose.

When creating new measures, it is crucial to explore their validity. We first examine whether our scores are predictive of litigation, assessing whether increased opportunities for review lead to more litigation.³ We then turn to an assessment of the relationship between our measures and two notable political features of agency policymaking: discretion and agency independence. These validation assessments lend support to the value and usefulness of our measures by providing examples of what Selin (2015) refers to as predictive validity and Grimmer (2010) would characterize as confidence in the application of our index.

Our creation of a measure of exposure to judicial review produces several major contributions. Most basically, it highlights a crucial aspect of judicial review of agencies that has been dramatically underappreciated. Indeed, as we will explain, even prominent legal scholars who study judicial review have held that such provisions—in particular, those that preclude or limit judicial review of agency actions—either rarely occur or are simply indications that Congress is confirming the availability of review. Contrary to this prevailing view, we find that such provisions, including those that constrain or preclude review, are a regular feature of statutes that delegate policymaking authority to government agencies. In doing so, we go beyond case studies to show that rather than being rare or idiosyncratic, such provisions are widespread and occur regularly.

More specifically, by systematically analyzing the inclusion of judicial review provisions in laws, we create a measure that reveals that laws vary—sometimes dramatically—in the degree to which they either increase or decrease the likelihood of review. It has long been recognized that Congress uses procedural and statutory provisions in an attempt to influence agencies directly (Huber and Shipan 2006); here, we show that it also uses such tools to attempt to influence courts. Notably, scholars can now use our measures to assess a range of empirical relationships between institutions, providing significant new insights into the separation of powers and the interaction of the three branches of government in the United States.

3. We also conduct an additional and informative validation exercise that, for reasons of space, we present in the [Online Appendix](#). In this validation exercise, we show that, as expected, our agency exposure scores increase (i.e., show increased opportunities for review) when Congress is more aligned with the courts than with the executive branch, and decrease when the reverse is true.

2. Background

Despite the importance of Congress's ability to strategically design provisions for judicial review of agencies, and despite the potential for such provisions to influence agency actions and policy choices, few studies have considered this power, and even fewer have systematically assessed it. The most common recognition of the design of judicial review has come in the form of case studies that provide qualitative accounts of specific instances when Congress has debated and, in some cases, adopted specific review provisions that either open agencies up to review or protect them from review. Thus, we have learned that in a range of policy areas—including veterans' affairs (Light 1992), environmental policy (Melnick 1983; Rose-Ackerman 1995), communications (Cass 1989; Shipan 1997), and welfare (Melnick 1994)—legislators have carefully considered and debated whether to include judicial review provisions in statutory law, with an eye toward how these provisions would then affect courts, agencies, and policy outcomes.⁴

The few studies that have engaged in more systematic evaluation of this congressional tool have examined either single policies (Smith 2005, 2006 on environmental policy) or specific types of actions, like jurisdiction stripping (e.g., Chutkow 2008).⁵ Most notably, Smith (2005, 2006) demonstrates that Congress strategically includes citizen suit provisions—agency-forcing provisions that citizens can use to push agencies to take action, and citizen-enforcement provisions that let people file suit directly against companies violating the law—in environmental statutes.⁶ After demonstrating that the inclusion of these provisions can be explained by political factors, Smith concludes that by carefully choosing the “*parameters of judicial review*, Congress can set the level and character of the judicial role in national policymaking” (2005, 139; emphasis in original).

The scattered nature of research on this topic has left us with a limited and incomplete picture of this congressional tool. We know little about broader overall patterns regarding whether Congress includes review provisions in laws, when it does so, and what specific types of review provisions it uses. For example, we know that Congress debated whether to protect the Veterans Administration (VA) by precluding (i.e., completely prohibiting) judicial review (Light 1992). Yet the standard view among legal scholars who have discussed preclusion more generally is that it rarely, if ever, occurs (see, e.g., Rabin 1975; Bagley 2014). Is this true? What

4. Legal case books also discuss these and other types of provisions, although without attempting to appraise their frequency or variation across laws (e.g., Strauss et al. 2018).

5. See also Heise (2011) and, more generally, Clark (2009, 2011), who show that Congress often attempts to strip the courts of jurisdiction to influence future policy outcomes.

6. Smith (2005) also considers other provisions that make it easier or harder for citizens to bring suit (e.g., requiring plaintiffs to post bonds before filing a suit, allowing the courts to award monetary damages or award attorney fees).

about other types of review provisions, such as the scope of review, or time limits for seeking review? Does Congress use such provisions to either increase or decrease the likelihood of judicial review? Beyond the case studies highlighted above, does Congress set the parameters of judicial review of agencies more broadly and across policy areas? In sum, we currently have little sense of how and when Congress designs review provisions.

Empirical research on judicial review thus has suffered from a lack of a unified and systematic approach to measure whether, how, and how frequently Congress uses statutory language to either expose agencies to, or insulate them from, judicial review. Without such a measure, we are limited in our ability to test hypotheses that might emerge from theoretical models of judicial review. Indeed, without such a measure, and without even basic knowledge of whether Congress does in fact include such provisions in laws—or how frequently it does so, or what types of provisions it includes—it makes little sense to develop theoretical accounts.⁷ With such a measure, on the other hand, not only can we begin to understand and investigate the empirical regularities of judicial review provisions, we also can provide a foundation for a deeper theoretical and empirical understanding of separation-of-powers interactions across institutions.

3. Types of Judicial Review Provisions

The range of statutory provisions available to Congress is broad and can seem hard to categorize. In reality, however, the majority of these provisions can be placed into one of five categories: reviewability, time limits, venue, scope of review, and standing. In the following sections, we discuss these five types, providing examples within each category.

3.1 Reviewability

First, Congress can address the reviewability of agency actions—that is, whether the courts are permitted to review specific agency actions.⁸ Such provisions might specifically designate certain agency actions, or types of actions, as reviewable; they can place limits on review; or they can even completely preclude review. Provisions that allow for review of agency actions can take many forms. They might, for example, straightforwardly

7. We follow [Cameron's \(2000\)](#) sensible admonition to establish basic empirical regularities before developing theory. There have been few theoretical studies that examine when Congress gives courts the power to review agencies, which is not surprising given the lack of understanding of even basic patterns of review. Two exceptions include [Shipan \(2000\)](#) and [Turner \(2017\)](#). Note that we focus on administrative judicial review and not constitutional judicial review (e.g., [Rogers 2001](#)), which may not involve an agency.

8. The Administrative Procedures Act, which provides guidelines for the structure of judicial review, clearly designates that Congress gets to decide which agency actions are or are not reviewable ([Rodriguez 1992](#)). We discuss the role of the APA below.

state that agency actions are reviewable.⁹ Alternatively, they might establish reviewability by asserting that review is *not* precluded (e.g., “Nothing in this subsection shall be construed to preclude judicial review of other final actions and decisions by the Secretary,” in the Reclamation Projects Authorization and Adjustment Act of 1992). Or they might specify which actions are reviewable, such as when Congress, in the Cable Television Consumer Protection and Competition Act of 1992, ensured that “[a]ny applicant whose application for a second franchise has been denied by a final decision of the franchising authority may appeal such final decision.”

Limits on review similarly can take different forms. Sometimes review is limited by the dollar amount involved, such as when the Social Security Amendments of 1965 allowed for judicial review of a decision, but only when “the amount in controversy is \$1,000 or more.” Other times review is constrained by identifying the grounds on which an agency can be challenged in court, such as when the Immigration Act of 1990 limited the conditions under which a non-citizen could seek review of an agency decision.

Finally, and most strikingly, laws can preclude review entirely, removing the judiciary from the process and giving agencies the final word. Probably, the most well-known example of preclusion relates to the actions of the VA prior to when it became a cabinet-level agency in 1988 (Light 1992). Still, although this case illustrates that Congress can preclude review, the dominant perception among scholars is that preclusion is quite rare. Rabin (1975: 905), for example, observed that “[u]sing the federal statutes as a measuring stick, one would search long and hard for an explicit congressional exemption of administrative action from judicial review.” More recently, in an insightful article about reviewability, Bagley (2014: 1323) echoed this view, contending that “[p]reclusion is uncommon” because “Congress is attentive enough to the importance of judicial review that it typically provides for it.” As we will see, however, preclusion—or other limits on review—is not nearly as uncommon as these experts’ observations suggest.¹⁰

3.2 Time Limits

Congress often allows agency actions to be appealed to the courts. But are there limits on the time frame in which judicial review must be initiated?

9. A typical example is Section 1553 of the American Recovery and Reinvestment Act of 2009, which states “Any person adversely affected or aggrieved by an order issued under paragraph (2) may obtain review of the order’s conformance with this subsection, and any regulations issued to carry out this section” (Pub. L. 111-5).

10. Legal studies generally conclude that preclusion is rare (e.g., Cass and Diver 1987; Verkuil 2002). In addition, as Strauss et al. (2018) explain, even Congress itself (and in particular its judiciary committees) has noted that preclusion is very rare. More generally, Greenfest (2013) notes the conventional wisdom that jurisdiction stripping is rare. Again, however, there has been no systematic evidence on this point, or on the inclusion of provisions that, while falling short of full preclusion, can limit opportunities for review.

The answer, at least with respect to the Administrative Procedures Act (APA), is “no,” as the APA is silent about such limits. There is, however, a six-year limit governing when suits—including challenges to administrative actions—can be brought against the US government (28 USC §2401(a)). Consequently, in the absence of any explicit time limits in authorizing statutes, a relatively long six-year window exists for the initiation of judicial review proceedings.

Congress can, however, set time limits shorter than this six-year window.¹¹ The Internal Security Act of 1950, for example, allowed for review of decisions of the Subversive Activities Control Board—but only if review was initiated within 60 days of a final action. The Federal Coal Mine Health and Safety Act of 1969 created an even tighter window, mandating that review had to be sought within 30 days of the agency’s decision. There are, of course, a variety of reasons why Congress might put such time limits in place—to decrease uncertainty for regulated entities that might have to expend funds on compliance, for example, or to facilitate pre-enforcement review (e.g., Verkuil 1983). At the same time, however, there is little doubt that shorter time limits, by restricting the period during which review can be initiated, decrease the likelihood that an agency’s action will be reviewed.¹²

3.3 Venue

Another approach that Congress can use to influence review concerns the venue, or forum, in which review will take place. Statutes can dictate that review must be sought in the local district court; any district court; the local US appellate court; the US Court of Appeals for the D.C. Circuit; any federal appellate court; or a special court. In the absence of a statutory provision that designates court venue, the default is provided by 28 USC §1391(e), which states that judicial review must be sought in the local federal district court, usually defined as the district in which the person seeking review works or resides.¹³ But Congress can (and does) designate the venue for review (Greenfest 2013). For example, the Civil Service Reform Act of 1978 states that employees “may obtain judicial review of the order in the United States court of appeals for the judicial circuit in which the employee resides or is employed at the time of the action.” And the Housing and Urban Development Act of 1968 stipulates that “[a]ll final orders or decisions . . . made under this title shall be subject to review by the District of Columbia Court of Appeals.”

11. A related, albeit separate, issue concerns the government’s strategic use of time. See, for example, Potter’s (2019) insightful examination of the ways agencies can manipulate the amount of time involved in, and the timing of, the notice and comment period.

12. As Verkuil (1983, 739) notes, Congress “has occasionally compromised between wide-open judicial review and absolute preclusion of judicial review by limiting review narrowly in time.”

13. We focus specifically on the language related to court venue that appears in some statutory provisions, not on jurisdiction (i.e., who has the authority to adjudicate).

There are several reasons why Congress might choose to specify and limit which courts can review agency actions. Specialized courts can be used for certain policy areas, such as customs or tax-related issues. Appellate courts might be chosen to expedite the process by skipping what otherwise would end up being just the first round of review in district courts. And the D.C. Court of Appeals might be chosen because of its high-level expertise regarding regulatory issues. More relevant for our analysis, case studies have shown that by either broadening the number of courts that can conduct review, or by limiting the potential venues, Congress can, respectively, increase or decrease the likelihood that an agency's actions will be taken to court (Cass 1989; Shipan 1997).

3.4 Scope of Review

The scope of review concerns the standards that a court should use when assessing an agency action. The APA spells out a number of potential standards—whether, for example, the agency has acted in an arbitrary and capricious manner, or has abused its discretion; whether its actions are unsupported by substantial evidence; and so on.¹⁴ The court then evaluates the agency's action against these standards when determining whether the action should be set aside, and it often has leeway to decide which standard to apply (Pierce 2011). However, rather than leaving the choice of a standard up to the courts, Congress can use enacting statutes to spell out which standard should be used. Furthermore, it has the incentive to do so, since evidence indicates that “when Congress has spoken either on scope of review or on standards of proof, the Court tries to honor Congress' wishes” (Verkuil 2002).

One particular scope of review provision directly affects how much an agency action is exposed to judicial review: whether the court can substitute its own judgment for that of the agency (i.e., *de novo* review), or whether it must defer to the agency's expertise and accept its findings of fact. The Food Stamp Act of 1964, for example, states that when judicial review of an agency action is sought in a US district court, there “shall be a trial *de novo* by the court in which the court shall determine the validity of the questioned administrative action in issue.” The Surface Mining Control and Reclamation Act of 1977 takes a different tack, requiring the court to base its decisions “solely on the record made before the Secretary.” As with other types of provisions, Congress can tailor the

14. Many legal scholars consider arbitrary and capricious and substantial evidence as equivalent standards. Here, we make no assumption about equivalence or ranking between these two (and many of the other attributes). Instead, as we describe in our coding process, we simply code the language Congress uses in the statutory text.

scope of review to either expose an agency's decision to, or protect them from, review.¹⁵

3.5 Standing

Finally, Congress can specify which person or persons have the right to challenge an agency's decision in court—in other words, who has standing. Of course, rules about standing have emerged in part from decisions of the courts themselves (Shapiro 1988).¹⁶ But Congress can, and does, stipulate requirements for standing in laws (Greenfest 2013). In some cases, these provisions are broad, as in the Clean Air Act Amendments of 1970 provisions that allow “any interested person” to seek review. At other times, however, laws may hew more closely to the APA and specify that only a person who has been “adversely affected” can pursue review, as in the Consolidated Appropriations Act of 2004.¹⁷

4. Coding Judicial Review Provisions in Major Laws

The examples in the preceding section demonstrate that Congress can incorporate a variety of provisions that regulate the conduct of judicial review and agency exposure to the courts. But much about this tactic remains unknown and unexplored, including which provisions are used, how frequently these provisions appear, and whether they generally aim to increase or decrease the likelihood of review. Again, other than broad claims that preclusion almost never occurs, and some discussion of debates over whether to increase or decrease the likelihood of review, we have little systematic information about whether Congress acts to preclude, limit, or broaden review; and if so, how frequently it takes such actions or what types of provisions it uses.

To investigate congressional use of judicial review provisions, we identified all such provisions in major laws from the post-World War II period, using the well-known list of laws compiled (and later updated) by

15. As O'Connell (2008) has pointed out, the courts have been inconsistent in deciding how much they should defer to agency expertise. Congress can reduce this uncertainty by directly specifying that the courts either do or do not have to engage in such deference.

16. Standing is often viewed as having both a constitutional (Article III) basis and a prudential basis. In 2013, however, Justice Scalia questioned the legitimacy of basing standing decisions on prudential guidelines. More specifically, he argued for the need to “replace general, judge-made notions of prudence with a substantive inquiry into the intent of particular statutory provisions” (Young 2014, p. 153). Although statutory provisions regarding standing would not outweigh clear Article III applications, in cases where the Article III application is less certain Congress can use the sorts of statutory provisions we identify to clarify its intent.

17. Additionally, Congress can explicitly identify *which* person or persons can seek review, as it did in the Toxic Substances Control Act of 1977 when it gave standing to only an “employee or employer.”

Mayhew (2005). We obtained the full text of each of these laws, which we then searched for terms related to judicial review.¹⁸ Once we found any of these search strings, we read each of the sections containing these provisions and dropped those that were not about judicial review of federal agencies.

4.1 Coding Delegated Agencies

Because we are interested in judicial review of agency actions, and not other instances in which Congress might give the courts instructions about how to interpret laws, we also drew upon ProQuest's Regulatory Insight and Legislative Insight databases, which provide information about legislative and agency rulemaking history. Based on our reading of these histories and the laws themselves, we categorized each law as to whether delegation occurred and, if so, which federal agencies received this delegated authority.¹⁹ Starting from the complete set of laws in Mayhew's updated list of significant enactments from 1947 to 2016 and relying on our full text searches, we identified 420 laws that delegate to federal agencies in our analysis.²⁰

4.2 Coding Reviewability, Time Limits, and Venue

The next task was to code each of the identified judicial review provisions in the laws according to the categories described above.²¹ Three of these categories were straightforward. For reviewability we coded whether provisions either precluded review, limited review, or specifically allowed for review.²² For time limits we coded whether statutory language placed any

18. These terms included the following: judi, appeal, appel, court, district, suit, action, legal, civil, and review.

19. We carefully compared our categorization to those of previous authors, including Epstein and O'Halloran (1999) and Farhang and Yaver (2015), to ensure we did not overlook any laws with delegation. Given our extensive full-text reading of the laws in our dataset, we find more instances of delegation than previous studies. From Mayhew's extended list (<http://campuspress.yale.edu/davidmayhew/datasets-divided-we-govern/>) we dropped laws with no executive branch implementation or delegation (see Online Appendix A). When Mayhew coded laws separately even though they were enacted as a package (i.e., omnibus bills), we merged them into a single law.

20. We dropped a handful of laws from Mayhew's list, including laws that established Alaska and Hawaii statehood, D.C. Self-Rule, and Martin Luther King Jr. Birthday as a national holiday, as well as three laws that delegate solely to the states or courts for implementation. Online Appendix A provides details.

21. Of course, statutes often contain multiple provisions. For now, we discuss how we code each provision. Later we explain how we aggregate across provisions.

22. We coded each provision for each attribute separately. For example, if a provision specifically allowed for review, then "Allow" was coded as a 1 (and was otherwise 0), while "Limit" and "Preclude" were coded as a 0. If another section in the same law specifically precluded review, then "Preclude" was coded as a 1 for that section and "Allow" and "Limit" were coded as a 0. Thus, these codes were mutually exclusive within each section. If a law allowed for review, but only of specific types of agency actions, we coded it as limiting review.

constraints on when review can be sought. If limits existed, we also coded the number of days.²³ And for venue, we coded whether judicial review was assigned to a specific court or set of courts.

4.3 Coding Scope of Review and Standing

Scope of review is more multifaceted, so we coded two sets of variables. To begin with, laws vary along a continuum in which they give either more or less *deference* to the agency's actions, and in particular whether they instruct courts to defer to the agency's findings of fact. To capture deference, we coded three mutually exclusive indicator variables: "Defer," which denotes whether the enacting language directed the court to accept (i.e., defer to) the agency's findings of fact; "Question Agency," which identifies whether the language of the law gives the court the authority to suggest or require that the agency take additional information into account; and "De Novo," which captures whether the court is allowed to conduct the review *de novo* (i.e., from the beginning), in which case it can substitute its own judgment for that of the agency. In each of these cases the variable was coded as 1 if the provision contained that authority, and 0 otherwise.

In addition, we also coded scope of review by examining whether the law mentioned the *standard* that courts should use when assessing agency actions. More specifically, we noted whether review provisions instructed the courts to apply one of the following standards: arbitrary or capricious; substantial evidence of concern with the decision or processes; or whether the actions were clearly erroneous. We again treated each of these as a dummy variable, assigning a value of 0 for the categories that lacked the specified language and 1 when that language appeared. If no scope of review language was included in the law, we coded each of these as zero.

Finally, we also coded legislative language about standing. More specifically, we coded the level of harm required for a person or persons to have standing, where the primary distinction was between whether the law stated that a person needed to be adversely affected or aggrieved (as in the APA), or whether it said that any interested person can seek review (thereby broadening the set of people who can file suit). As with the scope of review attributes, we coded these as three dummy categories—"Adversely Affected," "Aggrieved," or "Low Level of Harm"—where each received a 1 if present and a 0 otherwise.

4.4 Baseline Level of Review

Before proceeding to an examination of the data, two other issues merit attention. First, we acknowledge that provisions that allow, limit, or preclude review—or more generally that increase or decrease opportunities for review—do not completely tie judges' hands. Indeed, the courts often

23. When review is precluded, we coded the time limit to file a petition for review as zero days. When no time limit is provided, we coded the time limit as six years (2,190 days).

rely on a strong presumption of review. Moreover, courts can interpret statutes as allowing for review even when the language of the statute seems to indicate preclusion (Bagley 2014); and they can also do the reverse, interpreting a statute as precluding review even if it does not specifically mention preclusion (Breyer et al. 2017). Still, courts “frequently accept the limitations on review Congress seeks to impose” (Verkuil 1983).²⁴ More importantly, by including judicial review provisions in law, Congress raises the costs to a court of acting in ways inconsistent with these provisions, whether those costs come in the form of a higher likelihood of being overturned or reputational costs.

Second, the laws we examine were constructed in the shadow of the APA, which contains some (albeit not very detailed) instructions for how judicial review should be carried out. The existence of these APA provisions about review creates an implicit baseline of review instructions, even in laws that do not contain specific language about review. Since our primary goal is to assess when Congress either increases or decreases the opportunities for review, we distinguish provisions that either increase or decrease the likelihood of review from those that make no mention of judicial review. For example, the APA is generally viewed as implying a presumption that agency actions will be reviewable (e.g., Bagley 2014). A law that precludes or limits judicial review operates as a clear departure from this presumption. Yet if a law specifically says that judicial review is allowed, we view this as Congress sending a stronger signal to the courts than if it omitted any mention of judicial review and relied on the courts to recognize the presumption of review.

After all, Congress had a choice. It could have made no mention of judicial review, in which case, based on the APA, review would be presumed (although not ensured). We denote this baseline level by coding the attributes discussed above as equal to 0. Alternatively, it could have removed any doubt about whether review is allowed by specifically including language to that effect, thereby dramatically reducing the likelihood that a court might, for example, interpret the absence of any discussion of reviewability as implying preclusion. Including judicial review provisions, even if they mirror language from the APA, therefore suggests an attempt by Congress to make its intentions clear to the judiciary. Furthermore, as Rodriguez (1992) points out, the judicial review sections of the APA are sometimes inconsistent, and even in conflict, with each other, which means that if a law simply defaults to the APA it may be ambiguous with respect to review.²⁵ Hence, Congress can strengthen its signal by

24. Furthermore, courts tend not to interpret the absence of review provisions as implying preclusion (Breyer et al. 2017). Courts do, however, have the option of reviewing actions on constitutional, rather than statutory, grounds, which could allow them to elide specific review provisions (Verkuil 1983).

25. Statutory language often chooses among multiple options (e.g., which standard to apply) that are listed in the APA as possibilities.

specifying the details of judicial review rather than relying on either presumptions or potentially ambiguous expectations.

5. Frequency of Judicial Review Provisions

Since scholars have not conducted systematic assessments of the range or frequency of judicial review provisions across major laws, we begin by providing basic findings regarding their use. We start by focusing at the law level—that is, we look to see how many laws include judicial review provisions, as well as what types of provisions they include. This aggregation, which we later relax, allows us to provide the first systematic evidence regarding whether, and how frequently, Congress anticipates judicial review.

Table 1 shows that Congress often anticipates judicial review when writing statutes. Of the significant laws enacted between 1947 and 2016 that delegate to agencies, we find that a substantial number include provisions about reviewability, venue, time limits, scope of review, and standing. More specifically, 36% of the 420 delegating laws include at least one section that specifies whether judicial review of agency actions is precluded, limited, or allowed.²⁶ Approximately 29% identify the court (or courts) in which a petition must be filed, and just under 27% set time limits for initiating the review process. Additionally, 27% of laws prescribe the scope of review that courts should follow, while almost 29% delineate which petitioners can file for judicial review. The findings, which we report in Table 1, firmly establish that the inclusion of judicial review provisions in laws is common. Far from letting the courts decide what form judicial review should take, and in contrast to the conventional wisdom, Congress regularly acts to structure the interaction between courts and agencies.

In Figure 1, we isolate reviewability, the most common and arguably the most significant type of provision, in order to examine patterns over time in allowing, limiting, or precluding review. Several features of this figure are noteworthy. Even in the two Congresses that followed the passage of the APA (in the 79th Congress), between 10% and 20% of major laws that delegated to federal agencies also specified that judicial review should be allowed. This finding is consistent with the idea that Congress can strengthen the case for allowing review by specifically providing for it, rather than just relying on the APA. In addition, specifically allowing for judicial review is generally—but not always—more common than either limiting or precluding review, although there are a handful of exceptions.²⁷

26. Any law that addressed judicial review in any way also specified reviewability. Thus, the 36% figure also represents the percentage of delegating laws within our dataset that addressed judicial review in any form.

27. For example, in the 82nd and 86th Congresses no major laws included reviewability provisions of any type; in the 84th and 105th Congresses an equal number of laws allowed

Table 1. Frequency of Different Types of Provisions in Major Delegating Laws

Types of provision	Number of laws with this provision	Percentage of laws with this provision (%)
Reviewability	152	36
Venue	123	29
Time limits	112	27
Scope of review	114	27
Standing	121	29

Note: Total number of delegating laws in dataset = 420.

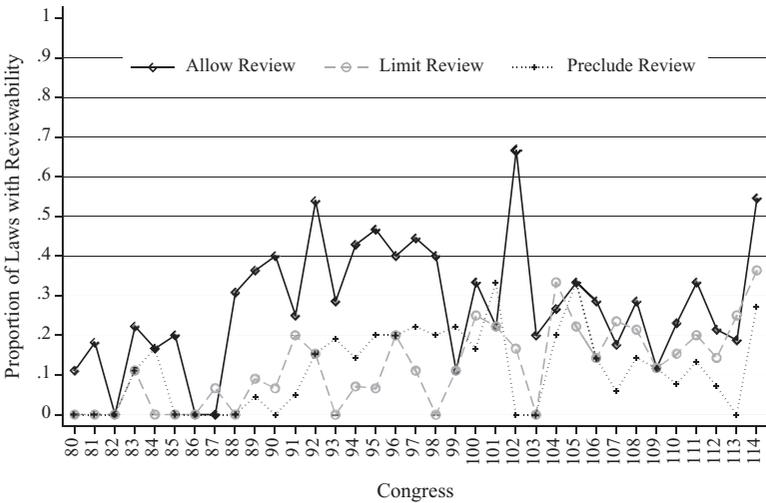


Figure 1. Pattern of Reviewability by Congress.

Note: The figure depicts the proportion of laws with the three reviewability attributes by Congress.

Finally, contrary to the standard view, which holds that “[s]ituations of nonreviewability are infrequent and disfavored” (Verkuil 2002: 681), Figure 1 shows that Congress often includes provisions that either explicitly preclude or limit review. Although these preclusions and limiting provisions were fairly rare initially, ever since the 83rd Congress they have become more common. In fact, in a number of Congresses, the combination of preclusions and limitations occurs more frequently than provisions allowing for review.

Overall, within our law sample we found 568 separate mentions of reviewability, which refutes the perception that Congress pays little attention to judicial review when writing laws and delegating authority to

and precluded review; and in five congresses preclusions or limitations were more frequent than provisions allowing review (87th, 99th, 101st, 104th, and 107th).

agencies.²⁸ Even more strikingly, and in marked contrast to the conventional wisdom that Congress almost never precludes review, we found 55 laws that include instances of complete preclusion, along with 46 more cases in which limits are placed on review (i.e., review is precluded under certain conditions).

6. Latent Agency Exposure to Judicial Review

Given that provisions for judicial review of agency actions can take multiple forms, and that these observable attributes may be correlated with each other, we now turn to latent variable modeling to create an index of *Agency Exposure*.²⁹ The value of this approach is that it allows us to combine the various types of provisions into a single measure that captures the degree to which statutory language either *exposes* an agency to review or *limits* this exposure. Absent such a comprehensive measure, the alternative would be to rely on individual types of provisions to determine the extent of overall exposure to judicial review. But given that we have shown that there are multiple possibilities for insulating agencies from or exposing them to review, which type would be the appropriate one to use? If using more than one type, how should they be weighted? Creating a latent index allows us to circumvent these problems and combine information from the different aspects of judicial review that we have identified.³⁰

6.1 Structure of the Datasets

Before discussing our latent variable approach, we first describe how we structured our data. Because laws contain multiple sections, and because these sections can differ not only in which types of review provisions they contain, but also which agency actions—or even which agencies—they address, we create two datasets.³¹ One of these datasets is at the level of individual laws. For this dataset, each law in our sample begins with one initial observation if any delegation to an agency occurs. If the law contains no sections that include language about judicial review provisions, it retains only this one row in the dataset. These are the laws that include delegation but then include no instructions about how judicial review should operate. Since these laws rely on the APA to structure the use of

28. Laws that include reviewability provisions may do so in more than one section in the law, as we discuss below. Thus, the 568 identified provisions were spread across 152 separate laws.

29. For example, a law might allow for review, but then constrain it by requiring review to be initiated within the short period of 30 days; or it might limit review to only certain types of agency actions, but then grant the judiciary the right to conduct review *de novo*.

30. In [Online Appendix Figures B1a–d](#) in [Appendix B](#), we consider alternative assumptions in our modeling approach (e.g., relying on an IRT model, one versus two dimensions, inclusion and exclusion of various attributes). We find that our index is highly robust to these changes and that one dimension produces a better fit than assuming two dimensions.

31. For clarity, we refer to segments of laws (often called titles or provisions) as “sections” and reserve the term “provision” for our coded judicial review attributes.

judicial review, we assign a zero to each of the separate attributes and no time limit for petitioners, thus identifying these sections as having the baseline level of APA review.

A law that contains sections that address the use of judicial review, though, has additional rows of observations for each of those sections. If all delegated agencies include details about judicial review, we remove the initial section of zeroes (baseline APA) and include each of the sections addressing judicial review as a row in our dataset. For laws that contain a mixture, with some sections that discuss judicial review of the actions of some agencies and other sections that include no provisions regarding judicial review of other agencies, we retain the initial zero-valued row to provide for these baseline APA cases, in addition to including separate observations for all instances in which the law spells out review provisions. We then develop an exposure score for each section of each law and aggregate across sections.

This first version of the dataset allows us to derive a law-level measure of agency exposure, a measure that shows how much review that law allows for, regardless of which agency or agencies are involved. This index can be used to pursue questions that occur at the law level—for example, as we explore later, whether laws that delegate with more discretion provide for greater or lesser exposure to the courts. More generally, this measure may be useful for offering insights into how a political coalition structures and bundles delegation, discretion, and oversight.

Because laws can delegate to multiple agencies, with each agency potentially receiving different judicial review attributes, we also structure our data into a second dataset, one that focuses on agencies. Thus, our first dataset allows us to examine the presence and degree of judicial revisions provisions in a *law*, regardless of the agencies that are involved, while the second provides us with the ability to focus on which *agencies* are targeted by judicial review provisions. To create this agency-level dataset, for each law we identified every agency that derives regulatory authority from the law by utilizing ProQuest's Regulatory Insight database. We rely on the public law number to find each regulatory history in our dataset and include only agencies promulgating rules within the first seven years of enactment.³² We then merged this information with our coding of judicial review attributes. Recall that our law-level dataset includes 420 laws, 268 of which included no instructions for judicial review. In these 268 laws, we identified 1,120 instances of agencies with regulatory responsibilities. For

32. ProQuest Regulatory Insight provides a searchable regulatory history for each law passed by Congress from 1936 to 2020 by drawing on a human review of all Federal Register documents and the Code of Federal Regulations, along with a final review by the editorial team. For additional information, see <https://proquest.libguides.com/reginsight/whatis>. A few laws' histories were not yet completed by ProQuest staff; for those we constructed the delegated agencies by searching the full text of the law for the following terms, and then denoted any agency involved: secretary, director, commission, department, agency, and chair(man).

the remaining 152 laws, each of which contains at least one section detailing judicial review for an agency, an additional 832 agencies were delegated implementation responsibilities, but without any corresponding judicial review details.³³

For example, consider the Sarbanes–Oxley Act, which Congress passed in 2002. Since this law delegates to eight different agencies (e.g., the Securities and Exchange Commission, the Department of Housing and Urban Development, etc.), and does not include any judicial review provisions in the sections delegating to each of these agencies, the entry for this law in our agency-level dataset contains eight observations with review attributes coded as zeroes, each row corresponding to each delegated agency.³⁴ In contrast, the Trade Act of 2002 includes review provisions in its delegation to the Departments of Homeland Security, Agriculture, Commerce, and Labor, so there is an observation for each of these agencies in which the review provisions are coded based on the language in the statute. In addition, however, this law includes two more rows with baseline APA codes (i.e., zeroes) for the Department of the Treasury and the Executive Office of the President, since the statute delegates to both but contains no discussion of review provisions relevant to these agencies.

Overall, laws varied widely in terms of the number of agencies to which they delegate. Some laws delegate to few agencies—for example, the Budget Control Act of 2011 delegated to one agency, the Department of Health and Human Services. Other laws, however, contain multiple delegations. The Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1999, for example, delegated to 42 different agencies, including the Departments of Agriculture, Labor, Justice, State, and more. By taking this variation into account, our agency-level scores allow for the exploration of questions that differ from those our law-level scores can address—for example, the connection between agency independence and judicial review or, more generally, questions related to specific agency structures and processes relevant for policy implementation.³⁵

6.2 Modeling Approach

With these data structures in hand, we can define a continuous index of *Agency Exposure*—either by law or by agency—as the extent to which

33. For this agency-level analysis, we identified 2,520 agency-sections in laws of the 2,520 agency-sections, 1,120 were agencies in laws with no judicial review instructions (268 laws in total). In the remaining 152 laws, 568 agency-sections were agencies in laws with previously coded judicial review instructions. We also identified an additional 832 agencies in those 152 laws. These agencies did not have judicial review instructions directed at them, thus were coded in the same manner as the 1,120 agencies with no judicial review instructions.

34. In other words, the dataset shows that each agency receives delegation, but without any judicial review provisions attached to that delegation, other than relying on the APA.

35. For convenience and simplicity, we will refer to this dataset as the “agency-level” dataset. More accurately, it is an agency-section-level dataset (i.e., the data are at the section level, but are disaggregated by agency).

agency actions are exposed to judicial review. This index includes both negative and positive values, with lower values indicating that Congress is insulating agencies from the courts and higher values revealing that Congress is exposing the agency's actions to judicial review. Since we have a mixture of dichotomous and continuous variables, we utilize a mixed factor, one-dimensional Bayesian latent variable model to estimate our underlying latent trait for each coded section of a law in our law-level dataset and for each regulatory agency in each law for our agency-level dataset.³⁶

The use of a latent trait model allows us to capture and combine the breadth of ways in which Congress designs judicial review of agencies by incorporating our data as coded above, as well as assuming each measured variable contributes differently to the index, in a fashion similar to traditional factor analysis. Let $i = 1, \dots, N$ represent the coded sections of significant public laws enacted from the 80th to the 114th Congress (from 1947 to 2016) and $j = 1, \dots, J$ be the individual attributes we collected above that are related to judicial review of agency actions. Following [Quinn \(2004\)](#), [Rosenthal and Voeten \(2007\)](#), and [Caughey and Warshaw \(2016\)](#), we first assume:

$$x_{i,j} = \begin{cases} 1 & \text{if } x_{i,j}^* > 0 \text{ for } j \text{ dichotomous,} \\ 0 & \text{if } x_{i,j}^* \leq 0 \text{ for } j \text{ dichotomous, and} \\ x_{i,j}^* & \text{for } j \text{ continuous} \end{cases}$$

where $x_{i,j}$ is the measured value for section i on trait j and $x_{i,j}^*$ is a latent score for the variable.³⁷ We then specify our model of latent agency exposure for each section as a function of a matrix of factor loadings (Λ) and a vector of factor scores (η_i):

$$x_i^* = \Lambda \eta_i + \varepsilon_i$$

and assume that the $N \times J$ matrix of latent scores follows a multivariate normal distribution.³⁸

36. We center our time in days at its mean value (i.e., a z-score). Given the distribution of our time limit variable, we also examine an ordered, categorical version of this variable with four categories: 1 for preclusions (i.e., no days), 2 for 1-89 days, 3 for 90-2189 days (i.e., six years), and 4 for those sections that do not include a specified time limit (implying the default six-year limit will be in effect). The results reported here are robust to this alternative version of our latent variable and are reported in [Online Appendix B](#).

37. We rely on `MCMCmixfactanal` within the `MCMCpack` package for R ([Martin et al. 2020](#)), which assumes normal priors on factor loadings and factor scores and an inverse gamma prior on the error variances for our static models (following [Selin 2015](#) and [Jackman 2009](#)). After initial tests, we use a burn in of 1,000 and 25,000 iterations for the sampler.

38. The error term (ε_i) is assumed to be distributed normally with mean of zero and variance of Ψ , which is assumed to be diagonal and equal to one for our dichotomous attributes.

To identify our models, we constrain the attribute “Allow” to be positive, “Preclude” to be negative, and our time variable to have a mean of zero; otherwise, we leave our attributes unconstrained.³⁹ In sum, we analyze the pattern of indicators related to a provision within a law across J traits related to exposing an agency to judicial intrusion or limiting that exposure.⁴⁰

We begin by creating two measures of agency exposure, one that captures exposure at the law level and the other by agency. These cross-sectional measures are valuable for several reasons. First, our approach in creating these measures follows [Quinn \(2004\)](#), [Rosenthal and Voeten \(2007\)](#), and [Selin \(2015\)](#) and thus is a well-established methodology in the literature. Second, our measurement approach is, in effect, a repeated cross-sectional sampling strategy: significant laws in a year (law-level) and implementing agencies within those laws enacted in a year (agency-level). Thus, the static, cross-sectional model provides the most straightforward match between modeling assumptions and data collection. Third, to examine within-year differences in exposure to the judiciary, a static measure provides the most accurate picture of these differences. For example, if we are interested in considering the effect of divided government on the congressional design of judicial review and delegation choices, a static annual (or bi-annual) measure is valuable.

Because of our lengthy time frame from 1947 to 2016 and the potential for change in the meaning and context of attributes over the span of seven decades, we complement these two initial approaches by developing a third set of scores, one that specifically incorporates the possibility of temporal correlation of review attributes. To do this, we construct a dynamic latent measure of agency exposure to the judiciary, relying on the same methodology utilized to measure the ideology of legislators or judges based on their votes (e.g., [Imai et al. 2016](#)).⁴¹ Thus, our $N \times J$ matrix of attributes is partitioned by time:

$$x_{i,t}^* = \Lambda \eta_{i,t} + \varepsilon_{i,t}.$$

We assume the time component is each year, which means we aggregate our codes for each attribute in each law, section, and agency to each year in the dataset. Most notably, a dynamic approach to our construct of interest allows us to consider the possibility of change in the meaning of the attributes over time. For example, allowing for review might have a different connotation for legislators in the 1950s than for legislators in the 2000s. Additionally, the background of judicial interpretations of

39. We obtain very similar results if we base identification only on the “Allow” and “Preclude” attributes (i.e., we do not constrain the time variable) or if we simply constrain preclusions to be negative. See [Online Appendix B](#) for our robustness results.

40. [Online Appendix Table A2 in Appendix A](#) summarizes our included attributes.

41. Additional details on our assumptions and modeling strategy are found in [Online Appendix B](#).

deference to agencies, the meaning of the APA, or other components of administrative law may change over time.

This dynamic approach explicitly models the temporal correlation of our attributes, in effect smoothing our exposure scores over time, and allows the influence of individual attributes to change, albeit slowly.⁴² Thus, a dynamic measure of agency exposure to the judiciary is useful for studying questions contingent on the evolution of legislative–executive or legislative–judicial interactions, such as whether the speed of agency rule promulgation depends on exposure to the judiciary over time. Moreover, if we are interested in the influence of changes in elite party polarization on judicial oversight choices of the legislature over time, we would utilize our dynamic measure of exposure.

6.3 Attribute Loadings

We plot the estimated contribution of each attribute to our two static indexes in [Figure 2](#). The loading for each attribute is shown by the location of the marker, with the precision of the estimate provided by the lines extending from the marker (with 95% credible intervals denoted by the thick black line). Many of the attributes behave as we would expect in one or both plots.⁴³ For example, “Preclude” is associated with the lowest level of exposure to the judiciary across our analyses (i.e., higher levels of insulation) and the mean of our continuous time limits attribute is zero. Meanwhile, as assumed in the model, “Allow” is associated with positive levels of exposure, although at a higher degree in our agency-level dataset than our law-level analysis. The three attributes that load the most positively on our static indices are two of the three standards of review categories: “Substantial Evidence” and “Clearly Erroneous,” along with the ability of courts to question agencies.⁴⁴

A few attributes produced moderately surprising results in [Figure 2](#). For example, rather than being associated with higher levels of exposure, “De Novo” appears to have a slight positive effect in both the cross-sectional law- and agency-level analyses. We do not view these unexpected loadings as especially troubling. First, many of these categories have small numbers (i.e., few sections contain these specific attributes). Second, if we add or subtract assumptions—for example, restricting specific variables to

42. Thus, instead of ignoring changes between time periods as in our static measure (or assuming linear increases or decreases), we assume that an agency enters our sample the first year it receives delegated authority from one of our significant laws. Note that until the agency receives an additional grant of authority in another law, we assume the attribute codes remain the same. As a new law delegates authority to the agency, we include the new row of judicial review attributes to account for possible changes.

43. As such, these loadings provide some initial validation for our measures and approach. However, as we discuss below, we do not place too much emphasis on them.

44. In [Online Appendix B, Figures B1e–f](#), we report the influence of each attribute for the dynamic agency-level exposure index. As with our static measures, we find that the loadings are positive for measures other than preclusion, with the exception of deferring to agencies and time limits of less than 90 days to petition the court.

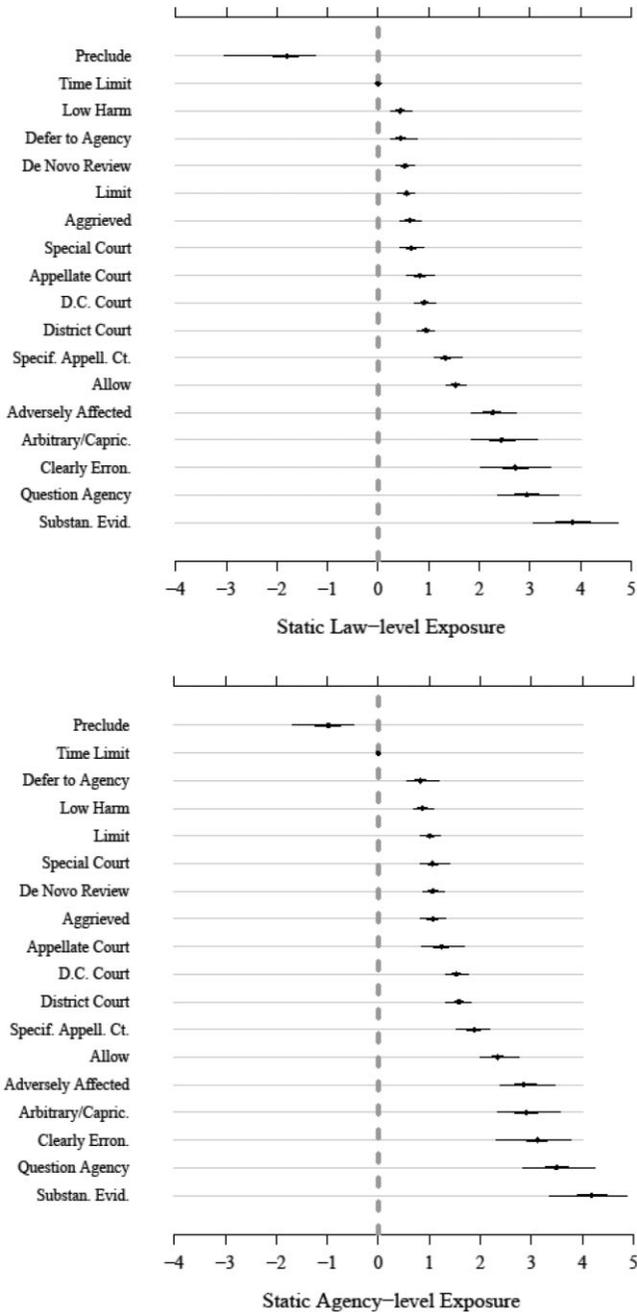


Figure 2. Relationship between Observables and Exposure to the Courts, Static Models. *Notes:* The figure plots the influence of each category of review (i.e., each attribute’s loading) on the overall exposure index for (a) each law and (b) each agency in laws, along with 95% credible intervals.

be positive or negative, or changing our time limit categories—our results and scores change little. Third, if we exclude the factors that produce surprising loadings, we obtain results that are highly correlated with what we show here. Finally, if every factor loaded exactly as predicted, then there would be little need to create an index.

7. The Agency Exposure Index

We turn now to a discussion of the results of our latent trait models. We begin with the law-level version of our *Agency Exposure* index. Next, we turn to the static agency-level measure, and then to the dynamic agency-level scores.

7.1 Law-Level Scores

Our measure of exposure to judicial review at the level of individual laws ranges from a low value of -1.60 , which is the value for the law providing the most insulation, to 1.89 in the law providing the most exposure.⁴⁵ Table 2 provides examples of laws that appear at the low end of exposure (i.e., high insulation from judicial review), in the middle, and at the high end.⁴⁶

Three of the laws that preclude review of agency actions exemplify a high level of insulation from review (i.e., low values on our exposure index): the Congressional Accountability Act of 1995, the Energy Security Act of 1980, and the Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014. For instance, one section in the Energy Security Act states that the “findings [regarding the need to exercise eminent domain powers] of the Board of Directors [of the Synthetic Fuel Corporation] shall not be subject to judicial review in any court.” A later section focusing on the president’s authority to determine whether there is a fuel shortage continues with “No court shall have the authority to review any determination made by the President under this subsection.”

Other laws, such as the Consolidated Appropriations Act of 2016, the Trade Act of 2002, and the Immigration Act of 1990, allow for middle levels of exposure, with some review allowed. In the Immigration Act, judicial review is precluded for Attorney General determinations with respect to temporary protected status. In contrast, final deportation orders are subject to judicial review as long as the petitioner files within 30 days of the determination (a decrease from the previous 60-day limitation). The average measure of agency exposure across the entire law for the Immigration Act is 0.07 .

At the most positive end of the spectrum (i.e., high exposure scores) are those laws that specifically allow for review of agency actions, such as the

45. Pub. L. 104-001 (Congressional Accountability Act of 1995) and Pub. L. 94-553 (the Copyrights Act), respectively.

46. Rows with zero-coded attributes have a baseline level of judicial review, which is estimated by our latent model as ranging from -0.576 to -0.396 .

Table 2. Law-Level Scores of Exposure to Judicial Review

Law title (Pub. L. number)	Exposure index (mean)
<i>Most insulation from review</i>	
Congressional Accountability Act (Pub. L. 104-001)	-1.54
IMPACT Act of 2014 (Pub. L. 113-185)	-1.50
Energy Security Act of 1980 (Pub. L. 96-294)	-1.21
<i>Some review allowed</i>	
Consolidated Appropriations Act of 2016 (Pub. L. 114-113)	-0.15
Immigration Act of 1990 (Pub. L. 101-649)	0.07
Trade Act of 2002 (Pub. L. 107-210)	0.11
<i>Most exposure to court review</i>	
Gun Control Act of 1968 (Pub. L. 90-618)	1.07
Every Student Succeeds (Pub. L. 114-095)	1.08
Copyrights Act of 1976 (Pub. L. 94-553)	1.61

Gun Control Act of 1968, where “the aggrieved party may [in 60 days] . . . file a petition . . . of a [gun collector license denial or revocation] . . . the court may consider any evidence submitted by the parties to the proceeding.” This law continues by stipulating that “[i]f the court decides that the Secretary was not authorized to deny the application or to revoke the license, the court shall order the Secretary to take such action as may be necessary to comply with the judgment of the court.”

These examples reveal some of the complexity of judicial review attributes. Our latent modeling approach captures these nuances, which in turn allows for comparisons across laws. By systematically collecting judicial review attributes in laws, we are able to create a novel measure that documents differences across laws—and in our next version, across agencies—with respect to how they either expose agencies to, or insulate them from, judicial review.

7.2 Agency-Level Scores (Static Version)

As discussed, we also use a standard latent variable approach to create *Agency Exposure* scores at the agency level, since different laws might contain different types of provisions for different agencies. This agency-level version of our index runs from -1.60 to 2.22. As with the law-level index, preclusion from review lands a law in the most insulated range of our measure, as shown in [Table 3](#) for the Synthetic Fuel Corporation in the Energy Security Act of 1980 or the Securities and Exchange Commission (SEC) in the Dodd–Frank Reform Act.

In contrast to those agencies that are mostly insulated from review, our measure shows that other agencies are subject to review, but with limits placed on the extent of review. [Table 3](#) provides some examples of agencies that fall into this category, such as the Environmental Protection Agency in the Toxic Substances Control Act or the International Trade Commission in the Trade and Tariff Act of 1984, among others. The

Table 3. Agency-Level Scores of Exposure to Judicial Review

Public law	Federal agency	Exposure index (mean)
<i>Most insulation from review</i>		
Energy Security Act (Pub. L. 96-294)	Synthetic Fuel Corporation	-1.48
Dodd-Frank Wall Street Reform and Consumer Protection Act (Pub. L. 111-203)	Securities and Exchange Commission	-1.37
Consolidated Appropriations Act of 2005 (Pub. L. 108-447)	Department of the Interior	-1.52
<i>Some review allowed</i>		
Consolidated Appropriations Act of 2001 (Pub. L. 106-554)	Social Security Administration	0.60
Toxic Substances Control Act (Pub. L. 94-469)	Environmental Protection Agency	0.66
Occupational Safety and Health Act of 1970 (Pub. L. 91-596)	Department of Labor	0.90
Trade and Tariff Act of 1984 (Pub. L. 98-573)	US International Trade Commission	1.02
<i>Most exposure to court review</i>		
Dodd-Frank Wall Street Reform and Consumer Protection Act (Pub. L. 111-203)	Consumer Financial Protection Bureau	1.61
Federal Elections Campaign Amendments 1974 (Pub. L. 93-443)	Federal Election Commission	2.05
Civil Rights Act of 1964 (Pub. L. 88-352)	Department of Justice	2.18

Consolidated Appropriations Act of 2001 provides another example. In this law, judicial review of the Social Security Administration's determination of the amount of payment to individuals with respect to Medicare parts A and B is not available if the payment is below \$1,000. Thus, review is allowed, but limited. Moreover, although judicial review is available for individuals who fail to receive certain administrative review processes, individuals have 20 days after the agency's final ruling to file a petition for judicial review and the method of determining the amount of payment is not subject to judicial review.

Other agencies are revealed to be at the high end of the distribution of this version of our index. For example, the Dodd–Frank Wall Street Reform Act intensifies reviewability of the Consumer Financial Protection Bureau (CFPB) by including a provision that provides for *de novo* review, thereby broadly exposing this bureau to the courts. Other laws similarly expose agencies to a high level of review, such as the Department of Justice in the Civil Rights Act of 1964 or the Federal Election Commission in the Federal Elections Campaign Amendments of 1974. Table 3 also highlights that, as in the case of the Dodd–Frank Reform Act, laws can expose some agencies to higher levels of judicial review (the CFPB), while also insulating others (the SEC).

Using our agency-level index, in Figure 3, we plot the mean of the exposure index by agency across the years of our dataset. Agencies that are revealed to be more exposed to judicial review on average include the Environmental Protection Agency and the Office of the Director of National Intelligence. Conversely, insulated agencies include the VA and the Department of Defense.

7.3 Agency-Level Scores (Dynamic Version)

Given that our dynamic agency-level version of *Agency Exposure* creates a score for each agency in each year in our dataset, we can examine agency exposure across time for each of the agencies in the sample.⁴⁷ Figure 4 reveals the variability of agency-level means for two agencies: the EPA and the VA. The scores for the VA reveal low levels of exposure to the judiciary over the time period, with the exception of a large peak from 1983 to 1988, which is around the time of its transition from an independent agency to a cabinet-level department (Light 1992). Additionally, the trend since around 2000 has been toward increasing levels of exposure for the VA. The EPA, in comparison, shows fairly regular peaks and valleys in the level of exposure, with three- or four-year increases followed by similar three-to-four year decreases—a pattern that may reveal congressional

47. The dynamic agency measure contrasts with the static agency index that provides a measure for an agency only in the years it received delegated authority in the laws enacted in that year.

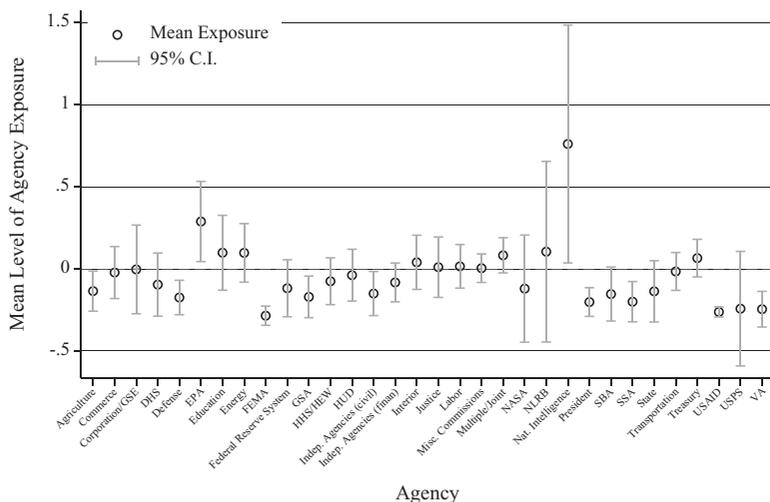


Figure 3. Average Exposure Scores for Cabinet-Level Agencies (1947–2016).
Note: The figure graphs the mean agency-level exposure across time from our static model, along with the 95% confidence intervals.

reaction to controversy or delay as the EPA implements new policy changes or, alternatively, the salience of EPA policy across changing administrations.⁴⁸

7.4 Summary

Our latent variable approach produces the first comprehensive, systematic measure of the legislative design of judicial review of agency actions. Furthermore, it allows us to create law-level and agency-level scores for cross-sectional (i.e., static) and dynamic analyses. A law-level static index offers a measure of how Congress bundles judicial review as a package of delegations, as well as instructions for implementation and oversight. Our cross-sectional agency-level index provides us with a measure of within-legislature differences in the degree to which agencies are exposed to the judiciary, allowing scholars to examine questions related to the consequences of variation across agencies. Finally, by loosening our assumptions about temporal correlation, we create a dynamic measure of agency exposure from 1947 to 2016. This dynamic latent index allows us to consider changes in the meaning of judicial review attributes across decades, as well as affording scholars a measure to utilize in studies of evolution and change.

48. We provide graphs of our dynamic measures for agencies in [Online Appendix B, Figure B1g](#).

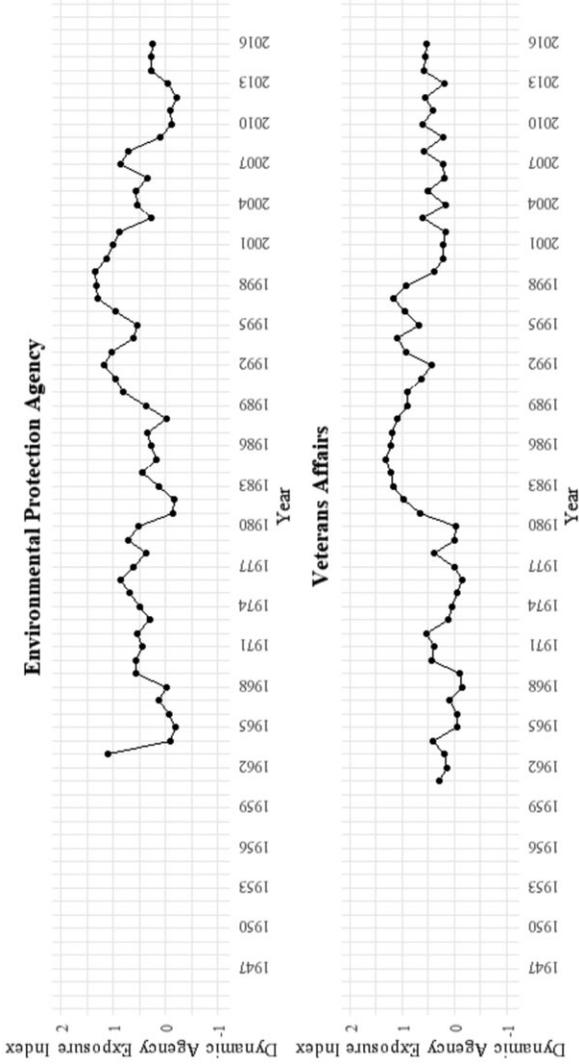


Figure 4. Dynamic Agency Exposure Scores for Selected Agencies over Time.
 Notes: The figure provides the EPA and VA dynamic agency-level exposure scores from their entry year in the dataset through 2016.

8. Validation

The previous sections establish that Congress frequently anticipates future judicial action and attempts to structure how review should be carried out. Based on our identification and coding of review provisions, we have constructed latent trait measures of exposure to judicial review both at the level of individual laws and for specific agencies within laws. Now we need to turn to the task of assessing the validity of these measures. As [Selin \(2015\)](#) has argued, when constructing a new measure it is both informative and necessary to determine whether (and how) it correlates with other potentially related political attributes in order to determine criterion validity.

We begin by probing the validity of our scores by examining their relationship to litigation. More specifically, if our scores are valid, then an increase in opportunity for judicial review should be correlated with an increase in litigation.⁴⁹ We then further explore validity by examining the relationship between our scores and two fundamental aspects of agency policymaking: delegation and agency independence. Like many other scholars who have developed new and potentially useful measures (e.g., [Clinton and Lewis 2008](#); [Selin 2015](#)), our goal in these validation exercises is to provide an initial assessment of whether the new measure is related to existing concepts and measures in a reasonable way.⁵⁰ In addition, these exercises provide examples of how our scores can be used.

8.1 Litigation and Exposure

We begin by examining the correlation between our dynamic measure and data drawn from the University of South Carolina's Judicial Research Initiative (JuRI) ([Hurwitz and Kuersten 2012](#)). JuRI provides a dataset consisting of a random sample of US Courts of Appeals cases from 1925 to 2002 categorized by (among other variables) the parties involved in the decision and the type and names of litigants involved.⁵¹ We can use the JuRI dataset to assess the validity of our scores by examining the link between agency exposure to judicial review and the frequency of litigation.

49. Another test of validity, which we present in [Online Appendix C](#), conducts a similar type of validation by assessing whether Congress increases opportunities for review when it is more trusting of the courts.

50. Given that the primary purpose of our paper is to create a new measure of exposure to administrative judicial review, a complete test falls well outside the scope of this paper. Similarly, we are not assessing theoretically based causal claims about the effect of other political variables on exposure to judicial review. Such an approach also is beyond the scope of this paper, since, as we have pointed out, there is little in the way of theoretical understanding that would allow us to make such specific predictions. Hence, developing such theories would require entirely separate papers. Rather, by demonstrating the validity of our measure by learning whether it is correlated with these other measures, we can facilitate future theoretical and empirical research about these relationships, as well as providing initial illustrations of how our measures can be used in empirical work.

51. Dataset was accessed at <http://artsandsocieties.sc.edu/poli/juri/appct.htm>.

Table 4. Dynamic Agency Exposure to the Judiciary and Appeals Litigation Cases

Two-sample <i>T</i> -tests of exposure		
Insulated Agency-Years	Number of appellate cases involving an agency as respondent	Cumul. number of appellate cases (over 3 years) involving an agency as respondent
	1.158 (0.164)	8.453 (0.927)
Exposed Agency-Years	4.181 (0.359)	37.728 (3.179)
Difference:	-3.023 (0.395)**	-29.275 (3.306)**

Notes: Standard errors are reported in parentheses. Significance is ** $p < 0.01$. Using the median of our dynamic agency exposure index, yields two samples: 2,189 agency-years that are insulated and 2,182 agency-years that are more exposed.

Since our dynamic agency-level measure provides a yearly average of exposure, we would expect our measure to be correlated with a greater frequency of litigation. In other words, when Congress opens up agencies to judicial review, and makes review easier to initiate, we should expect to find a higher frequency of litigation involving those agencies. To examine whether this predicted relationship occurs, we begin by collecting the number of appeals courts cases that involve the federal government as a respondent by agency and year from 1947 to 2002. Then we compare the number of cases for each agency to our measures of exposure to judicial review.

In Table 4, we display the results of a *t*-test considering those dynamic agency exposure scores that are at-or-below versus above the median in comparison to the number of appeals courts cases in that year for an agency.⁵² We find that, as expected, agency-years with higher levels of exposure have approximately 29 additional cases (cumulative sum over three years) than those with more insulated levels of exposure.⁵³ In other words, increased opportunities for judicial review are associated with an increase in litigation, which provides validation for our measure.⁵⁴

52. Using the mean of the distribution as a cut-point instead of the median results in similar findings, with a statistically significant -2.69 unit difference between agencies with higher than average exposure and those less than average.

53. If we consider a regression-based (OLS) approach utilizing the continuous index and include time trends as predictors for the yearly number of court cases by agency, as well as clustered standard errors, we find a positive and significant coefficient of 1.01 (or 0.238 for a Poisson estimator). Moreover, if we allow for a lag in the timing between agency exposure to the courts and cases to wind their way through the system, we find similar correlations: 10.961 and 0.275 for the OLS and Poisson estimators, respectively, using a rolling three-year (forward) cumulative sum of the number of cases.

54. Congress also might choose to increase exposure when it expects an agency to be subject to greater amounts of litigation (and approves of this litigation). To the extent this

8.2 Delegation and Discretion

We continue our validation exercise with a consideration of the relationship between the amount of discretion that a law delegates to agencies and the degree to which the same law either increases or decreases the likelihood of judicial review. We know, from numerous earlier studies, that legislatures use statutes to influence the amount of discretion an agency has. One way they can do so is by using either detailed language that tells agencies what to do (and thus limits discretion) or vague language that allows for considerable discretion (e.g., [Huber and Shipan 2002](#); [VanSickle-Ward 2014](#)).⁵⁵ In other words, when a legislature wants to constrain agencies and limit their discretion, it can do so by writing detailed statutes that direct agencies to take specific actions.

In addition to writing detailed laws that tell an agency what to do, Congress has another tool that it can use to make sure the agency does what Congress wants: it can enlist the courts to watch over the agency. Writing detailed statutes that limit discretion and expanding access to review thus are complementary: when Congress wants to constrain an agency and writes detailed statutes that direct an agency to act in certain ways, it should also increase the likelihood of judicial review, to further ensure that the agency follows the law and does what Congress has told it to do. In terms of validation, we should find that our measure of exposure to judicial review increases in situations where Congress has given precise instructions to agencies and wants the courts to help it monitor these actions.

To investigate this relationship and to further assess the validity of our judicial review scores, we examine the correlation between our law-level index of *Agency Exposure* and the amount of discretion in each law. More specifically, we create a measure called *Discretion*, which captures the inverse of the extent to which a law constrains agencies by utilizing the commonly used metric of word counts (i.e., where statutes containing more words place more constraints on agencies than do those containing fewer words).⁵⁶ We then investigate the correlation between this measure and

occurs, it could provide an alternative explanation for our findings. Conversely, Congress might opt to decrease exposure to the judiciary when an agency faces a litigation-heavy environment, which would bias our estimates downward, implying that our estimates are conservative. Since we do not delve into the theoretical relationship between litigation and review provisions in this paper, we leave this as an area for future study.

55. See also [Epstein and O'Halloran \(1999\)](#) for an exploration of the link between delegation and *ex post* oversight.

56. We follow several other scholars ([Huber et al. 2001](#); [Randazzo and Waterman 2011](#); [Clinton et al. 2012](#); [Vakilifathi 2019](#)) in using a version of word counts as a measure of discretion. Although this is a blunt measure, [Denny \(2018\)](#) shows it is highly correlated with a more nuanced, machine-learning-based measure of discretion. Based on [Huber and Shipan's \(2002\)](#) caution about using raw word counts across policy areas, we account for the possibility that laws in some policy areas are inherently longer than those in other areas. We do so by measuring constraint as the length of a statute relative to the average length of all other statutes in that same policy domain—that is, the number of words in the law

Table 5. Discretion and Law-level Exposure

Two-sample <i>T</i> -test of constraints	
	Law-level exposure
Low discretion (high constraint)	-0.175 (0.039)
High discretion (low constraint)	-0.301 (0.033)
Difference:	0.126 (0.051)**

Notes: Standard errors are reported in parentheses. Significance is ** $p < 0.01$. Given we use the median of the distribution as the cutpoint, there are 210 laws with low levels and 210 laws with high levels of discretion.

our *Agency Exposure* scores.⁵⁷ To the extent that our measure is valid, we should expect that when Congress writes more detailed laws (i.e., limits discretion), it also should increase opportunities for review.

Table 5 explores this relationship. In this table, we divide laws into high and low levels of discretion, corresponding to whether each law's constraint ratio was at or below versus above the median, respectively. Using our law-level measure of judicial review exposure, we then calculate the average exposure score for laws falling into each of those categories, with the expectation that when Congress writes more detailed laws, it also will increase opportunity for review (i.e., higher *Agency Exposure* scores). A *t*-test confirms that this is indeed the case: as we move from laws with high discretion to those with low discretion—in other words, those in which Congress uses the statute to constrain agencies—we see an increase of 0.126 units in our *Agency Exposure* score, which corresponds to a 4% increase.⁵⁸ Our results therefore suggest that Congress exposes agencies to more judicial review when it gives them explicit directions.⁵⁹

divided by the mean number of words in laws in that policy area. We then take its inverse as our relative measure of discretion. For each section with a coded judicial review provision, we utilize the Comparative Agendas Project (CAP) master codebook to code the major topic of the policy area (Comparative Agendas Project, 2020). For all other sections, we rely on the major topic code in the CAP Public Law dataset.

57. Because laws often delegate to multiple agencies simultaneously (e.g., Farhang and Yaver 2015; Clouser McCann and Shipan, 2021), it would be extremely difficult to disentangle which words are connected to which agencies. Thus, we use the standard approach of calculating constraint (and thus discretion) at the law level.

58. Our law-level index is 3.146 units in length. To further investigate this relationship, we utilized ordinary least squares with our exposure index as the left-hand-side variable and discretion on the right, along with fixed effects for Congress and policy area, time trends, and robust standard errors clustered by public law number. We find a statistically significant positive coefficient using the constraint ratio (0.098 with a standard error of 0.040), which again indicates that increasing constraint (i.e., decreased discretion) goes with increasing exposure to review.

59. Calculating law-level scores by aggregating across agencies, rather than across sections, produces similar results. We also find support for our results if we do a correlation

8.3 Agency Independence

As a final exercise, we evaluate the relationship between agency independence and exposure to review. Government agencies vary considerably in the degree to which they are independent of elected officials (e.g., [Gilardi 2008](#)). One question that has not been addressed, however, is whether there is a connection between an agency's level of independence and the degree to which Congress exposes it to, or insulates it from, judicial review.

The expectations here are less clear than in the previous two examples. On the one hand, Congress might choose to increase judicial review for agencies that are more independent and decrease judicial review for those agencies that are less independent. The logic is that since Congress is unable to exert strong influence over agencies that are more independent, it might turn to the courts to try to place limits on what more independent agencies are doing. On the other hand, Congress might choose to shield from judicial review those agencies that are more independent, as it expects such agencies to benefit from the freedom to develop and draw on its own expertise, without needing to worry about influence or reprisal from other institutional actors, including the courts.⁶⁰ Since we lack a clear prediction here, this exercise is less about predictive or concurrent validation and more about demonstrating how our scores can be used to assess other aspects of agency policymaking.

We draw our measure of agency independence from recent work by [Selin \(2015\)](#). In this innovative study, Selin gathers separate indicators of independence and creates an index of independence along two dimensions: how agency leaders are appointed (dimension 1, which captures the independence of agency leaders), and political review of agency actions (dimension 2, which captures the independence of agency processes).⁶¹ Here, we explore the relationship between Selin's measures and our agency-level measure of *Agency Exposure*, with the goal of assessing the connection between an agency's independence and the degree to which Congress opens it to judicial review.

To examine the correlation between Selin's measures and our agency-level measure of *Agency Exposure*, we use a simple regression, one that allows us to control for other factors by including time and agency effects. Since Selin's measure is a static measure of agency independence, we utilize our static agency-level index. [Table 6](#) displays these results. We find a

between a four-category (i.e., quartiles) version of our discretion measure and our exposure index. A simple correlation between the measures is likewise positive, although it does not reach statistical significance (p -value = 0.08).

60. The pattern for the VA shown in [Figure 4](#) corresponds to this second possibility, with the agency being more shielded from the courts when it was an independent agency.

61. Selin's dimension related to political review includes whether the agency has the independence to litigate on its own instead of through the Attorney General—which is itself a political choice that Congress makes. On the topic of conflict across agencies, see [Farber and O'Connell \(2017\)](#).

Table 6. Agency Independence and Agency Exposure to Judicial Review

	Model 1
	Coef. (C.S.E.)
Leader independence (Selin Dimension 1)	-0.047 (0.022)*
Independent processes (Selin Dimension 2)	0.059 (0.022)**
Agency clustered S.E.	√
Congress F.E.	√
Policy area F.E.	√
Time trend	√
Time trend ²	√
Time trend ³	√
Constant	-1.136 (0.468)*
R-squared	0.123
Adj. R-squared	0.102
N	2,500

Notes: Model 1 reports ordinary least squares estimates with the dependent variable as the average static agency-year *Agency Exposure* index. Robust standard errors, clustered by agency, in parentheses with

* $p < 0.05$, ** $p < 0.01$. We include indicators for policy area and Congress, as well as time trends (number of years since 1945, along with its square and cubic forms). We exclude agencies for which there were no independence measures and use zero for the Executive Office of the President.

statistically significant negative relationship between the independence of agency leaders and *Agency Exposure*. More specifically, the coefficient of -0.047 corresponds to a 1.3% decrease in agency exposure to the judiciary as this first dimension of agency independence increases by one unit, given our agency-level exposure index is 3.71 units in length. At the same time, we find a positive effect for the second dimension of independence: as agency processes become independent of politics, the agency is increasingly exposed to the judiciary. The coefficient for this variable corresponds to an increase of agency exposure around 1.6% as independent processes increase by one unit.

By showing that when Congress trusts an agency's leaders it protects the agency from review, but that it increases opportunities for review when an agency is structurally more independent, our results suggest that Congress may be using judicial review provisions strategically. More specifically, legislators seem to vary their use depending on the specific nature of agency independence. Clearly, however, these mixed findings call for additional research into the relationship between independence and review.

9. Discussion and Conclusion

Congress has the power to spell out administrative judicial review provisions in individual statutes, offering up the potential to dramatically affect agency policymaking and shape policy outcomes. Although scholars have

noticed the existence of these provisions, research has suffered from a lack of a systematic and unified approach to measure how Congress strategically uses statutory language in an attempt to influence this relationship between agencies and the courts. Our goals in this paper were to provide such a unified and systematic measure of exposure to judicial review across laws and agencies over time.

In part, we build upon insights from several case studies that have pointed to the controversies that occurred over the choice of review provisions in specific contexts. But our approach to measuring exposure to review is much more comprehensive, covering a significant number of major laws over a long period and across policy areas. Based on intensive hand-coding of laws to determine which types of provisions have been used, we found that Congress regularly chooses to include review provisions in major laws. Indeed, judicial review provisions are included in over a third of all major laws that have delegated authority to federal agencies in the post-World War II era.

Furthermore, we found that Congress sets the parameters for review in a variety of ways. These review provisions sometimes allow for review of agency actions, sometimes limit it, and other times preclude review altogether. In addition, Congress often specifies the venue for review, the time limit in which review must be initiated, the scope of review, and standing. By using these provisions, and by deciding on their specific form, Congress can substantially affect whether the actions that agencies take are protected from judicial review or whether they are made vulnerable to judicial oversight. Overall, then, our analysis demonstrates how Congress can—and does—use procedural controls involving the courts in much the same ways that it does with the bureaucracy.

Our main contribution is to combine these attributes using a latent variable approach to measure agency exposure to judicial review. Our measure of *Agency Exposure*, which we create at both the law-level and agency-level, has a wide variety of potential uses. Notably, we also carefully examined its validity, by considering the frequency of litigation as well as potential associations between *Agency Exposure* and important aspects of the separation of powers: the amount of discretion included in public laws and agency independence. Our validation exercises show that, as expected, an increase in exposure to judicial review is associated with an increase in litigation.⁶² Furthermore, agencies that are more constrained (i.e., have lower levels of discretion) have higher levels of

62. As discussed earlier, in [Online Appendix C](#) we provide further validation by showing that Congress increases exposure to judicial review when it is more aligned with the courts than the executive branch. In addition, we also have explored whether our indexes change in predictable ways following significant judicial decisions, and find some evidence that they do: in the decade following the Supreme Court's *Chevron* decision, our dynamic agency exposure reveals a statistically significant increase of 7.2 units, or a 38% increase (and continues to increase for another two decades). In the decade following the *Abbott Labs* decision, we also find an increase (0.09 units, or 0.4%) although it is not statistically significant. Both

exposure to the courts, suggesting that Congress utilizes the courts in its efforts to ensure that agencies follow congressional directions and again supporting the validity of our measures. Finally, we find mixed but interesting results concerning the relationship between agency independence and exposure to review.

Together, our new data and measure create possibilities for future empirical research to systematically explore how Congress creatively and strategically uses a variety of delegation tools to structure policy implementation. If, as our validation exercise suggests, Congress is pairing less court oversight with higher levels of discretion and protecting some kinds of independent agencies from administrative judicial review, theoretical approaches to delegation may need to be refined. It also suggests other avenues of investigation—for example, into the relative costs of congressional versus judicial oversight, differences across policy areas that require higher or lower levels of expertise or that have different levels of political salience, whether the use of review provisions is influenced by electoral considerations, and even the extent to which courts are constrained by these provisions. Our approach in this paper, by identifying, documenting, and systematically measuring the use of review provisions, as well as validating these measures, both suggests and makes possible these sorts of investigations.

Supplementary material

[Supplementary material](#) is available at *Journal of Law, Economics, & Organization* online.

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References

- Bagley, Nicholas. 2014. "The Puzzling Presumption of Reviewability," 127 *Harvard Law Review* 1285–340.
- Breyer, Stephen G., Richard B. Stewart, Cass R. Sunstein, Adrian Vermeule, and Michael Herz. 2017. *Administrative Law and Regulatory Policy: Problems, Text, and Cases*, 8th ed. Wolters Kluwer.
- Cameron, Charles M. 2000. *Veto Bargaining: Presidents and the Politics of Negative Power*. New York: Cambridge University Press.
- Cass, Ronald A. 1989. "Review, Enforcement, and Power under the Communications Act of 1934: Choice and Chance in Institutional Design," 420-433, in M. D. Paglin, ed., *A Legislative History of the Communications Act of 1934*. New York: Oxford University Press.
- Cass, Ronald A., and Colin S. Diver. 1987. *Administrative Law*. Boston: Little, Brown.
- Caughey, Devin, and Christopher Warshaw. 2016. "The Dynamics of State Policy Liberalism, 1936–2014," 60 *American Journal of Political Science* 899–913.
- Chutkow, Dawn M. 2008. "Jurisdiction Stripping: Litigation, Ideology, and Congressional Control of the Courts," 70 *Journal of Politics* 1053–64.

regressions were linear models including congressional fixed effects and time trends with robust standard errors clustered by agency.

- Clark, Tom S. 2009. "The Separation of Powers, Court Curbing, and Judicial Legitimacy," 53 *American Journal of Political Science* 971–89.
- . 2011. *The Limits of Judicial Independence*. New York: Cambridge University Press.
- Clinton, Joshua D., Anthony M. Bertelli, Christian R. Grose, David E. Lewis, and David C. Nixon. 2012. "Separated Powers in the United States: The Ideology of Agencies, Presidents, and Congress," 56 *American Journal of Political Science* 341–54.
- Clinton, Joshua D., and David E., Lewis 2008. "Expert Opinion, Agency Characteristics, and Agency Preferences," 16 *Political Analysis* 3–20.
- Clouser McCann, Pamela J., and Charles R. Shipan. 2021. "How Many Major Laws Delegate to Federal Agencies? (Almost) All of Them," *Political Science Research and Methods* 1–7.
- Comparative Agendas Project. 2020. The Policy Agendas Project at the University of Texas at Austin. *Public Laws*. www.comparativeagendas.net (last accessed December 30, 2020).
- Denny, Matthew. 2018. "More than Control: Partisan Differences in the Use of Statutory Constraints on the Bureaucracy." Working Paper, Penn State.
- Epstein, David, and Sharyn., O'Halloran 1999. *Delegating Powers: A Transaction Cost Politics Approach to Policy Making under Separate Powers*. New York: Cambridge University Press.
- Farber, Daniel A., and Anne Joseph O'Connell. 2017. "Agencies as Adversaries," 105 *California Law Review* 1375.
- Farhang, Sean, and Miranda Yaver. 2015. "Divided Government and the Fragmentation of American Law," 60 *American Journal of Political Science* 401–17.
- Gilardi, Fabrizio. 2008. *Delegation in the Regulatory State*. Northampton, MA: Elgar.
- Greenfest, Seth W. 2013. "Explaining Congressional Grants of Jurisdiction to the Federal District Courts," 34 *Justice System Journal* 274–93.
- Grimmer, Justin. 2010. "A Bayesian Hierarchical Topic Model for Political Texts: Measuring Expressed Agendas in Senate Press Releases," 18 *Political Analysis* 1–35.
- Heise, Nicole A. 2011. "Stripped: Congress and Jurisdiction Stripping," 3 *Faulkner Law Review* 1–16.
- Huber, John D., and Charles R. Shipan. 2002. *Deliberate Discretion? The Institutional Foundations of Bureaucratic Autonomy*. New York: Cambridge University Press.
- . 2006. "Politics, Delegation, and Bureaucracy," in B.R. Weingast and D. Wittman, eds., *The Oxford Handbook of Political Economy*. Oxford: Oxford University Press, 256–272.
- Huber, John D., Charles R. Shipan, and Madelaine Pfahler. 2001. "Legislatures and Statutory Control of Bureaucracy," 45 *American Journal of Political Science* 330–45.
- Hurwitz, Mark S., and Ashlyn Kuersten. 2012. "Changes in the Circuits: Exploring the Courts of Appeals Databases and the Federal Appellate Courts," 96 *Judicature* 23–34.
- Imai, Kosuke, James Lo, and Jonathan Olmsted. 2016. "Fast Estimation of Ideal Points with Massive Data," 110 *American Political Science Review* 631–56.
- . 2020. "emIRT: EM Algorithms for Estimating Item Response Theory Models." <https://cran.r-project.org/web/packages/emIRT/emIRT.pdf>
- Jackman, Simon. 2009. *Bayesian Analysis for the Social Sciences*. West Sussex, UK: John Wiley and Sons.
- Light, Paul C. 1992. *Forging Legislation*. New York: W.W. Norton.
- Martin, Andrew D., and Kevin M. Quinn 2002. "Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953–1999," 10 *Political Analysis* 134–53. doi:10.1093/pan/10.2.134.
- Martin, Andrew D., K. M. Quinn, J. H. Park, G. Vieille-dent, M. Malecki, M. Black-well, K. Poole, C. Reed, B. Goodrich, Q. Yu, et al. 2020. "MCMCpack: Markov Chain Monte Carlo (MCMC) Package." <https://cran.r-project.org/web/packages/MCMCpack/MCMCpack.pdf>
- Mayhew, David R. 2005. *Divided we Govern: Party Control, Lawmaking, and Investigations, 1946–2002*. New Haven: Yale University Press.

- Melnick, R. Shep. 1983. *Regulation and the Courts: The Case of the Clean Air Act*. Washington, DC: The Brookings Institution Press.
- . 1994. *Between the Lines: Interpreting Welfare Rights*. Washington, DC: The Brookings Institution Press.
- Pierce, Jr. Richard J. 2011. “What Do the Studies of Judicial Review of Agency Actions Mean?,” 63 *Administrative Law Review* 77–98.
- O’Connell, Anne Joseph. 2008. “Political Cycles of Rulemaking: An Empirical Portrait of the Modern Administrative State,” 94 *Virginia Law Review* 889–986.
- Potter, Rachel A. 2019. *Bending the Rules: Procedural Politicking in the Bureaucracy*. Chicago: University of Chicago Press.
- Quinn, Kevin M. 2004. “Bayesian Factor Analysis for Mixed Ordinal and Continuous Responses,” 12 *Political Analysis* 338–53.
- Rabin, Robert L. 1975. “Preclusion of Judicial Review in the Processing of Claims for Veterans’ Benefits: A Preliminary Analysis,” 27 *Stanford Law Review* 905–23.
- Randazzo, Kirk A., and Richard W. Waterman. 2011. “The U.S. Supreme Court and the Model of Contingent Discretion,” 32 *Justice System Journal* 269–92.
- Rodriguez, Daniel B. 1992. “The Presumption of Reviewability: A Study in Canonical Construction and Its Consequences,” 45 *Vanderbilt Law Review* 743–77.
- Rogers, James R.. 2001. “Information and Judicial Review: A Signaling Game of Legislative–Judicial Interaction,” 45 *American Journal of Political Science* 84–99.
- Rose-Ackerman, Susan. 1995. *Controlling Environmental Policy*. New Haven: Yale University Press.
- Rosenthal, Howard, and Erik Voeten. 2007. “Measuring Legal Systems,” 35 *Journal of Comparative Economics* 711–28.
- Selin, Jennifer. 2015. “What Makes an Agency Independent?,” 59 *American Journal of Political Science* 971–87.
- Shapiro, Martin. 1988. *Who Guards the Guardians? Judicial Control of Administration*. Athens, GA: University of Georgia Press.
- Shipan, Charles R. 1997. *Designing Judicial Review: Interest Groups, Congress, and Communications Policy*. Ann Arbor: University of Michigan Press.
- . 2000. “The Legislative Design of Judicial Review: A Formal Analysis,” 12 *Journal of Theoretical Politics* 269–304.
- Smith, Joseph L. 2005. “Congress Opens the Courthouse Doors: Statutory Changes to Judicial Review under the Clean Air Act,” 58 *Political Research Quarterly* 139–49.
- . 2006. “Judicial Procedures as Instruments of Political Control: Congress’s Strategic Use of Citizen Suits,” 31 *Legislative Studies Quarterly* 283–305.
- Strauss, Peter L., Todd D. Rakoff, Gillian E. Metzger, David J. Barron, and Anne Joseph O’Connell. 2018. *Gellhorn and Byse’s Administrative Law: Cases and Comments*. 12th ed. New York: Foundation Press.
- Turner, Ian. 2017. “Working Smart and Hard? Agency Effort, Judicial Review, and Policy Precision,” 29 *Journal of Theoretical Politics* 69–96.
- Vakilifathi, Mona. 2019. “Constraining Bureaucrats Today Knowing You’ll Be Gone Tomorrow: The Effect of Legislative Term Limits on Statutory Discretion,” 47 *Policy Studies Journal* 978–1001.
- VanSickle-Ward, Rachel. 2014. *The Devil Is in the Details: Understanding the Causes of Policy Specificity and Ambiguity*. Albany, NY: SUNY Press.
- Verkuil, Paul R. 1983. “Congressional Limitations on Judicial Review of Rules,” 57 *Tulane Law Review* 733–75.
- . 2002. “An Outcomes Analysis of Scope of Review Standards,” 44 *William and Mary Law Review* 679–735.
- Young, Ernest A. 2014. “Prudential Standing after *Lexmark International, Inc. v. Static Control Components, Inc.*,” 10 *Duke Journal of Constitutional Law & Public Policy* 149–63.