William & Mary Bill of Rights Journal

Volume 25 | Issue 3 Article 5

Are Commercial Speech Cases Ideological? An Empirical Inquiry

Adam M. Samaha

Roy Germano

ARE COMMERCIAL SPEECH CASES IDEOLOGICAL? AN EMPIRICAL INQUIRY

Adam M. Samaha* & Roy Germano**

ABSTRACT

The empirical study of judicial behavior continues to grow and mature. The live challenges include specification, such as constructing useful conceptions and measures of ideology, mapping particular domains in which identifiable forces influence decisions, and quantifying the magnitudes of those influences. To make progress on these challenges, we roll out new and expanded datasets that build on the work of Cass Sunstein, Lee Epstein, Gregory Sisk, and others, and we report on the character of constitutional litigation today. Our datasets cover U.S. Court of Appeals decisions in five domains: (1) commercial speech, (2) gun rights, (3) abortion rights, (4) establishment clause claims, and (5) anti-affirmative action claims. The bulk of the data reaches into 2016. Part of the data collection was automated, but all judge votes were coded by at least one law professor. Our vote coding allows judges to support claims in part or in full. We then deploy three proxies for judge ideology, including a new variable designed by Adam Bonica and Maya Sen that relies on judges' pre-appointment campaign contributions. In our regression models, we introduce both standard and novel independent variables, such as three measures of procedural and substantive law.

Commercial speech cases are the focus of this Article. We find no evidence of ideological influence within the full set of those cases, in the sense of judge votes tracking ordinary policy disagreements. The results make commercial speech cases

* Professor of Law, New York University School of Law.

** Research Scholar, New York University School of Law. This Article was prepared for the Commercial Speech Symposium held at Northwestern University Pritzker School of Law on October 14, 2016, in honor of Professor Martin Redish, who is a most gracious host. The Article later benefitted from a presentation at New York University's Law and Economics Workshop, with Jennifer Arlen's guidance. Thanks also to Emiliano Catan and Scott Hemphill for advice on empirical strategies; to Stephen Choi, Lewis Kornhauser, Daryl Levinson, and Burt Neuborne for comments on an earlier draft; to Luke Samaha for writing a Westlaw scraper for certain case-level data; to Christina Boyd, Lee Epstein, Adres Sawicki, Maya Sen, and Greg Sisk for creating datasets and sharing them; to the *William & Mary Bill of Rights Journal* editors for generously accommodating late-breaking changes; and to Peter Devlin and Emma Moore for tireless and excellent research assistance. Professor Samaha adds his thanks to the Filomen D'Agostino and Max E. Greenberg Research Fund for financial support. Mistakes, whether or not quantifiable, are ours.

look like gun rights cases—and unlike abortion rights, establishment clause, and affirmative action cases, which are consistently ideologically charged in our models. The differing magnitudes of ideological influence across case sets are presented numerically and visually. However, when commercial speech cases are limited to post-2000 decisions, to cases involving disclosure requirements, or to cases involving "right-wing advertising," some results do change. Our variable for "big business" claimants is statistically significant in the post-2000 cases but not in the full sample of cases. Also, subtle ideological rifts seem to emerge in the disclosure and right-wing advertising cases, with some judges apparently migrating toward or away from supporting commercial speech claims in part or in full. Some of our findings are preliminary and warrant further research. Regardless, our data and analysis should cast more light on contemporary constitutional litigation as it now stands, after the close of the Obama administration and at the beginning of the Trump presidency.

I vehemently dissent.[1] [abortion rights]

[Q]uit trivializing the Constitution![2] [religious establishment]

We deplore . . . the refusal of a present majority to recognize this.[3] [racial integration]

I will not join the carnage.[4] [meat labeling]

INTRODUCTION

Some conception of ideology, loose or tight, plays a role in adjudication. This news is old and hedged, but the observation can now command widespread agreement from informed observers. Constitutional law scholars can, with little effort, see a loose version of judicial ideology at play in upstream decisions about the architecture of legal doctrine. Among empiricists, the role of policy preferences in producing case results is longstanding conventional wisdom, even if their concept of judicial attitudes is not always well-defined or cleanly distinguished from lawful discretion. In any event, the live empirical challenges today involve specifics: conceptualizing and operationalizing ideology, identifying domains in which ideology does and does not play a role, and estimating and comparing magnitudes across domains.[5]

This Article revisits several domains of constitutional decision-making with new data and a few new angles. The Article focuses on commercial speech cases in the federal circuit courts and compares the judge voting patterns there with those in gun rights, abortion rights, establishment of religion, and affirmative action cases. The datasets are either expanded from the earlier work of other scholars or built from

---

[1] Memphis Planned Parenthood, Inc. v. Sundquist, 175 F.3d 456, 468 (6th Cir. 1999) (Keith, J., dissenting) (condemning parental consent restrictions on abortion).

[2] Washegesic v. Bloomingdale Pub. Sch., 33 F.3d 679, 685 (6th Cir. 1994) (Guy, Jr., J., concurring) (rejecting a challenge to a religious display in a public school).

[3] Belk v. Charlotte-Mecklenburg Bd. of Educ., 269 F.3d 305, 371 (4th Cir. 2001) (opinion of Motz & King, JJ.) (supporting, among other efforts, a magnet school program to promote racial integration).

[4] Am. Meat Inst. v. U.S. Dep't of Agric., 760 F.3d 18, 54 (D.C. Cir. 2014) (Brown, J., dissenting) (condemning country-of-origin labeling requirements for particular commodities).

[5] *See, e.g.*, Adam M. Samaha, *On Law's Tiebreakers*, 77 U. CHI. L. REV. 1661, 1710 (2010) (suggesting that extreme versions of the attitudinal model of judicial behavior, in which law has no independent influence on case outcomes, are giving way to more complex empirical views); Brian Z. Tamanaha, *The Distorting Slant in Quantitative Studies of Judging*, 50 B.C. L. REV. 685, 688 (2009) (contending that the key issue is how much, not whether, judicial ideology matters). An extensive review of the early scholarship that is accessible to a lawyer audience is Barry Friedman, *The Politics of Judicial Review*, 84 TEX. L. REV. 257, 272–329 (2005).

scratch, and the bulk of the data now reaches into 2016.[6] Some of the data collection was automated using a new Westlaw scraper, but all of the judge votes have been coded by at least one law professor. In addition, judge votes are allowed to support the relevant claim or claims in full, in part, or not at all. This coding increases our ability to pick up subtler shifts in voting behavior compared to binary coding.[7]

Furthermore, we use three measures of judicial ideology interchangeably for purposes of comparison: the party of the appointing president, which is a standard metric in the empirical literature on judicial behavior; Judicial Common Space scores, which also are commonly used; and so-called DIME scores, which are recently released measures based on judges' campaign contributions before they take the bench.[8] Moreover, in addition to a number of fairly standard independent variables, we constructed three new variables based on procedural and substantive law.[9] Constructing variables like these is an effort at "bringing the law back into the study of courts."[10]

The first headline result is that judge voting on commercial speech claims writ large looks different from—and nonideological compared to—voting in several other case sets.[11] If we define this domain of litigation simply and broadly, that is, ideological influence seems absent when people or companies complain about advertising regulations. None of our variables for judicial ideology are statistically significant in either a bare-bones specification that controls only for judge traits,[12] or a more complex kitchen-sink specification that attempts to measure and control for more than a dozen additional variables such as procedural posture, doctrinal subdomains, and several claimant traits.[13] Other intriguing variables, such as whether the commercial speech claimant is a "big business," do not appear to have clear effects on judge voting, although they are worth further investigation. In commercial speech cases, a dummy variable identifying big business claimants is not statistically significant at conventional levels in the full case set, but is for cases

---

[6] *See infra* Section II.A (describing the case sets); Section III.A & Table 1.0 (reporting summary statistics).

[7] *See infra* Section II.B (describing dependent variables).

[8] *See infra* note 141 and accompanying text. As explained below, we use DIME scores with imputations. DIME scores are alternatively referred to as "CFscores" ("campaign finance scores") in the literature.

[9] *See infra* Section II.C (describing independent variables).

[10] Charles M. Cameron & Lewis A. Kornhauser, *Rational Choice Attitudinalism?*, 2015 EUR. J.L. & ECON. 1, 17 (book review) (emphasis omitted); *see also* FRANK B. CROSS, DECISION MAKING IN THE U.S. COURT OF APPEALS 47 (2007) (calling quantitative measures of law "essential").

[11] *See infra* Section III.A.

[12] *See infra* Section III.B.1 & Tables A.1–A.3 (reporting bare-bones model results).

[13] *See infra* Section III.B.2 & Tables B.1–B.4 (reporting kitchen-sink model results). For a lay understanding of our tests for statistical significance, see *infra* note 177.

decided after the year 2000.[14] Regardless and from a broad global perspective on the modern era of constitutional litigation, therefore, judicial disagreements over commercial speech claims do not look like judicial disagreements over, say, abortion rights or affirmative action.

There is another headline to report, however: If we cut further into the domain of commercial speech litigation from two theoretically defensible angles, then evidence of ordinary ideological divisions emerges. Surprisingly, and whatever constitutional doctrine suggests, the subset of cases involving mandatory disclosures and warnings seems ideologically divisive.[15] Perhaps more troubling, judges sometimes divide over advertising content that is "right-wing" as opposed to "left-wing."[16] To paraphrase Judge Higginbotham's thirty-year-old complaint, the basis for disagreement in these cases "may be little more than how judges view whiskey"[17]—and guns and cigarettes and brothels. That said, some of the patterns are nuanced, with left-leaning judges apparently attracted to supporting commercial speech claims only in part, when the case involves disclosure or the advertising content turns rightward.

Thus for a piece, but only a piece, of the commercial speech docket we find indications of ideological divides that match ordinary political divides outside the judiciary. This much might be enough to prompt rethinking about the value of judicial review in this space.[18] Indeed it has never been clear that constitutional judicial review in this field has been worth the price in litigation costs and policy flexibility, or whether judges are sufficiently able to address emerging challenges such as business or regulator leveraging of big data analytics and cognitive nudges. Either way, the results reported below will underline the importance of choosing thoughtfully the domain of judicial behavior to study and the metrics of valuation. These choices can determine whether indicators of ideological influence are set off—whether

---

[14] *See infra* Section III.B.3 & Table C.1 (reporting results for post-2000 commercial speech cases). For our impressionistic coding of "bigness" in business, see text accompanying note 165 *infra*.

[15] *See infra* Section III.B.3; Table C.2; Figure 3.0 (all reporting results for commercial speech cases involving a disclosure issue).

[16] *See infra* Section III.B.3; Table C.2; Figure 3.0 (all reporting results for commercial speech cases involving putatively right-wing advertising). For our coding of advertising content, see text accompanying note 173 *infra*. In a similar spirit is Lee Epstein et al., Do Justices Defend the Speech They Hate?: In-Group Bias, Opportunism, and the First Amendment 2–3, 8–10 (2013) (unpublished manuscript), http://ssrn.com/abstract=2300572 [https://perma.cc/V39W-8D3Z] (reporting that the votes of putatively liberal and conservative Justices correlate with liberal and conservative speech content of the claimants, as coded by the authors).

[17] Dunagin v. City of Oxford, 718 F.2d 738, 755 (5th Cir. 1983) (en banc) (Higginbotham, J., dissenting) (evaluating, reluctantly, liquor advertising restrictions).

[18] *See infra* Section IV (identifying plausible responses to the reported results for commercial speech litigation, including judicial "exit").

judges' courtroom divisions over cigarette packaging and gun advertising look like everyone else's divisions over abortion policy and affirmative action. At a minimum, we can foreground the empirical options in order to better inform our reform commitments.

I. IDEOLOGY IN PERSPECTIVE

A. Upstream and Downstream

From conventional yet contested legal materials, someone must formulate constitutional doctrine to guide decisions on categories of issues. Constitutional doctrine provides part of the decision architecture for workaday judges, a strut located between high-level abstract principles and ground-level results.[19] We can then picture the development of doctrinal architecture as taking place "upstream" from particular case results, which we may locate further "downstream" in the development of constitutional norms. Now, the processes of developing mid-level doctrine and generating case results obviously occur simultaneously. Doctrinal design choices are influenced by experience with particular controversies and, sometimes unfortunately, by the case-level facts presented to the judge.[20] The upstream and downstream labels are metaphors, to separate conceptually two functionally related operations.[21] Each operation has a distinguishable connection to judicial ideology.

The concept of ideology has several interchangeable forms as applied to adjudication. Loosely, we may think of ideology as including a general perspective on how the world does or should operate without reference to extrajudicial politics,[22] and as encompassing something called judicial philosophy.[23] The constitutional law of

---

[19] *See* RICHARD H. FALLON, JR., IMPLEMENTING THE CONSTITUTION ix (2001) (highlighting judicial doctrine as a mechanism for implementing constitutional norms).

[20] *See* Frederick Schauer, *Do Cases Make Bad Law?*, 73 U. CHI. L. REV. 883, 885, 890–99 (2006) (examining "the disturbing possibility" that the ordinary adjudicative process in courts skews perceptions and predictions about a rule's distribution of applications toward all-too-salient case facts).

[21] *See* Adam M. Samaha, *On the Problem of Legal Change*, 103 GEO. L.J. 97, 111 (2014) (investigating stability and change in antecedent processes and consequent results within legal institutions and elsewhere).

[22] *See, e.g.*, Bryan D. Lammon, *What We Talk About When We Talk About Ideology: Judicial Politics Scholarship and Naive Legal Realism*, 83 ST. JOHN'S L. REV. 231, 242, 249–50, 254–55 (2009) (identifying one definition of ideology that is loose enough to include beliefs, experiences, and perceptions about the world, while later qualifications of ideology turn more political).

[23] *See, e.g.*, Charles Fahy, *The Judicial Philosophy of Mr. Justice Murphy*, 60 YALE L.J. 812, 813 (1951) ("Cases were not merely vehicles for the decision of a particular controversy, but occasions for the exposition of a philosophy of imaginative application of the

commercial speech and other fields must be "ideologically driven" in the loose sense, and without any shame for the judges who built that law. Formal law that is not well developed for a given issue or that affirmatively invites discretionary judgments will allow for or demand this loose notion of judicial ideology.[24] Thus, upstream doctrinal development is unavoidably influenced by each judge's general judicial philosophy, whether or not influenced by policy preferences that track disagreements outside the courthouse. Yes, we might test, for example, judges' commitments to rules or standards, broad or narrow holdings, and rapidly as opposed to rarely updated legal norms for correlation with ordinary political divides. But we should not have strong expectations of a match.

More tightly, we may think of ideology as the extralegal nonjudicial policy preferences that we see everywhere else in society. The distribution of these policy preferences among judges might or might not mimic the distribution of such preferences in agencies or legislatures or elsewhere. This tighter conception of ideology helps us ask whether results in court are driven by forces much different from results in nonjudicial politics. If we have reliable measures of policy differences in society, we can check for those differences in judicial decisions.

This target of investigation should turn our attention downstream. The downstream application of preexisting law to particular cases might be compared to other policy disputes, if we can translate the options that judges face into similar choices that other people face. Where the evidence is convincing,[25] we may then connect

---

Bill of Rights so that individual liberties should prevail over the efforts of the community to restrict them . . . ."); Miriam Galston, *Activism and Restraint: The Evolution of Harlan Fiske Stone's Judicial Philosophy*, 70 TUL. L. REV. 137, 185 (1995) ("[H]is preoccupation with the growing ineffectiveness of the law and with the threat to the legal order posed by a dwindling popular consensus as to the law's justice pulled him further and further toward a judicial posture deferential to legislative initiatives in economic matters."); John W. Poulos, *The Judicial Philosophy of Roger Traynor*, 46 HASTINGS L.J. 1643, 1693 (1995) (describing a balancing of "the forces of repose" against "the creative forces" of the judge creating new law).

[24] *See* Adam M. Samaha, *Looking Over a Crowd—Do More Interpretive Sources Mean More Discretion?*, 92 N.Y.U. L. REV. (forthcoming 2017) (manuscript at 9), https://ssrn.com/abstract=2888909 [https://perma.cc/8H4N-CMXD]. Pauline Kim helpfully explains that some conception of ideology is sometimes built into formal law itself, and that judges may have an "ideological" commitment to following law best understood. *See* Pauline T. Kim, *Lower Court Discretion*, 82 N.Y.U. L. REV. 383, 404–08 (2007). An excellent experimental study of judicial decision-making, with an uncharitable take on observational studies, is Dan M. Kahan et al., *"Ideology" or "Situation Sense"? An Experimental Investigation of Motivated Reasoning and Professional Judgment*, 164 U. PA. L. REV. 349 (2016). The authors emphatically restate the important point that doctrine sometimes allows or calls for the application of "different judicial philosophies." *Id.* at 363.

[25] In LEE EPSTEIN ET AL., THE BEHAVIOR OF FEDERAL JUDGES: A THEORETICAL AND EMPIRICAL STUDY OF RATIONAL CHOICE 159, 168 (2013), the overall voting difference between Democratic and Republican appointees to the Courts of Appeals, across all case categories, is on the order of 6%. For examples of studies failing to find statistically significant

downstream judicial results with extralegal policy preferences. And worth asking is whether the philosophical coalitions that build and retain the constitutional law of commercial speech will maintain a crosscutting quality, or whether judges, however unique their institutional setting, will divide the same way the rest of us divide.

B. Cross-Cutting Coalitions

For some years, the commercial speech doctrine was only mildly controversial. At first, lawyers and judges struggled over whether commercial advertising was within even the outer limits of the First Amendment's speech clause and corresponding protection in the Fourteenth Amendment.[26] In 1942, the Supreme Court quickly and unanimously explained that the answer is "no."[27] In 1976, the Court reversed course and answered "yes" in *Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council, Inc.*[28]

Justice Blackmun's lengthy opinion in *Virginia Board* observed doctrinal drift away from the no-coverage position,[29] identified settled free speech principles to confine the legally eligible reasons for stiffing proposals to engage in commercial

---

correlations between standard proxies for judicial ideology and judge voting patterns, see, for instance, Barton Beebe, *Does Judicial Ideology Affect Copyright Fair Use Outcomes?: Evidence from the Fair Use Case Law*, 31 COLUM. J.L. & ARTS 517, 519, 522 (2008) (studying fair use votes); Samaha, *supra* note 24, at 42–43 (studying likelihood of trademark confusion findings in district courts); Nancy Staudt et al., *The Ideological Component of Judging in the Taxation Context*, 84 WASH. U. L. REV. 1797, 1800 (2006) (reporting no statistical association between supposedly liberal and conservative Justices and liberal and conservative tax case voting in general, but then an association in corporate income tax case voting); *see also* E. Thomas Sullivan & Robert B. Thompson, *The Supreme Court and Private Law: The Vanishing Importance of Securities and Antitrust*, 53 EMORY L.J. 1571, 1578–92 (2004) (studying securities law votes). A study that is sensitive to magnitudes is Matthew Sag et al., *Ideology and Exceptionalism in Intellectual Property: An Empirical Study*, 97 CALIF. L. REV. 801, 803–04 (2009) ("[A]lthough ideology is highly predictive of IP [(intellectual property)] outcomes [in Supreme Court cases], the size of this effect is nonetheless significantly lower than it is in cases involving prominent social issues, such as voting rights or the death penalty.").

[26] An incisive introduction to the foundational theories and doctrinal developments is LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW 890–95 (2d ed. 1988).

[27] At least for "purely commercial advertising" in the public streets. Valentine v. Chrestensen, 316 U.S. 52, 54 (1942) (contrasting undue regulatory burdens on information and opinion dissemination in the streets, and stating "the Constitution imposes no such restraint on government as respects purely commercial advertising"). Later, Justice Douglas called *Valentine*'s conclusion "casual, almost offhand. And it has not survived reflection." Cammarano v. United States, 358 U.S. 498, 514 (1959) (Douglas, J., concurring).

[28] 425 U.S. 748, 761–62 (1976).

[29] *See id.* at 758–60.

transactions,[30] and made an effort to measure the interests of advertisers, consumers, and even voters in such information, "[s]o long as we preserve a predominantly free enterprise economy."[31] However persuasive as a matter of professional lawyering, the opinion attracted broad support on the Court. Justice Blackmun's opinion reassembled the *Roe v. Wade*[32] supermajority coalition, plus Justice White.[33] Only Justice Rehnquist (another Nixon appointee) dissented.[34] He contended that the majority had only scored points for "desirable public policy," which was better directed to the institutions of ordinary politics.[35]

Much of the reasoning in *Virginia Board* is logical, thoughtful, and lawyerly. It resembles some early legal scholarship on the question of how to treat informational advertising under the First Amendment.[36] Martin Redish was one of the first legal scholars to contribute, contending in 1971 that "as much information as possible concerning the relative merits of competing products" was necessary for an individual "to achieve the maximum degree of material satisfaction permitted by his resources."[37] Consumer decision-making in an information-rich environment was also good practice, he argued, for other settings including democratic self-governance.[38] "When the individual is presented with rational grounds for preferring one product or brand over another, he is encouraged to consider the competing information . . . [and to] exercise his abilities to reason and think; this aids him towards the intangible goal of rational self-fulfillment."[39]

---

[30] *See id.* at 761–62.

[31] *Id.* at 765.

[32] 410 U.S. 113 (1973).

[33] *See id.* at 165 (attempting to formulate doctrine that, among other virtues, is "consistent with the relative weights of the respective interests involved"). Recall that only Justices White and Rehnquist dissented in *Roe*. *Id.* at 167, 171; Doe v. Bolton, 410 U.S. 179, 221 (1973) (White, J., dissenting). Chief Justice Burger and Justice Stewart wrote concurrences in *Roe*, as they would later in *Virginia Board*. *Roe*, 410 U.S. at 167 (Stewart, J., concurring); *Bolton*, 410 U.S. at 207 (Burger, C.J., concurring). Justice Stevens, having been recently appointed to the Supreme Court to replace Justice Douglas, did not participate in *Virginia Board*.

[34] *Va. State Bd. of Pharmacy*, 425 U.S. at 781 (Rehnquist, J., dissenting).

[35] *Id.* at 784 ("[T]here is certainly nothing in the United States Constitution which requires the Virginia Legislature to hew to the teachings of Adam Smith in its legislative decisions regulating the pharmacy profession.").

[36] Martin H. Redish, *The First Amendment in the Marketplace: Commercial Speech and the Values of Free Expression*, 39 GEO. WASH. L. REV. 429, 433 (1971).

[37] *Id.*

[38] *Id.* at 439.

[39] *Id.* at 443–44; *cf.* Alex Kozinski & Stuart Banner, *Who's Afraid of Commercial Speech?*, 76 VA. L. REV. 627, 634 (1990) (concluding that "[t]he [F]irst [A]mendment's text and history don't provide us with any explanation of the distinction between commercial and noncommercial speech," and going on to evaluate the Court's alleged commonsense differences in "the nature" of commercial speech).

We should wonder whether courts are better at evaluating these competing interests than other combinations of actors. Institutional turns in legal scholarship demand that much.[40] Some of the above logic might seem quaint and beside the point for the contemporary world, in which image advertising and identity-connected consumer behavior play large roles.[41] Simple product descriptions and pricing are easily pulled down from digital sources by online consumer searches, and we do not always see simple informational advertisements for the *x* product at the *y* price. Furthermore, any notion that a rising information load is strictly beneficial to human judgment is an economic theory now battered if not crushed by behavioral evidence.[42] To the extent that courts are able to update their approach to commercial

---

[40] *See, e.g.*, NEIL K. KOMESAR, IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY 4–5, 246 (1994) (arguing that having policy goals is basically unimportant without understanding implementing institutions); ADRIAN VERMEULE, JUDGING UNDER UNCERTAINTY: AN INSTITUTIONAL THEORY OF LEGAL INTERPRETATION 63 (2006) (calling for sophisticated institutional analysis in formulating useful interpretive protocols for real judges acting on limited information); Einer R. Elhauge, *Does Interest Group Theory Justify More Intrusive Judicial Review?*, 101 YALE L.J. 31, 33–35 (1991) (comparing, in a serious theoretical way, judicial to legislative systems); Lawrence Gene Sager, *Fair Measure: The Legal Status of Underenforced Constitutional Norms*, 91 HARV. L. REV. 1212, 1263–64 (1978) (arguing that institutional constraints prevent Justices from enforcing every aspect of the Constitution as they might understand it); Adam M. Samaha, *Undue Process*, 59 STAN. L. REV. 601, 661–62 (2006) (observing that "[j]udges might be honest yet error-prone brokers, or parochial yet expert players," and suggesting ways to calibrate judicial review in light of its decision costs); Cass R. Sunstein & Adrian Vermeule, *Interpretation and Institutions*, 101 MICH. L. REV. 885, 886 (2003) (contending that useful and realistic debates about legal interpretation must take into account institutional capacities and dynamic effects); *see also* Richard A. Posner, *Against Constitutional Theory*, 73 N.Y.U. L. REV. 1, 2–4, 22 (1998) (stressing the value of empirical inquiry over normative constitutional theorizing by law professors); William N. Eskridge, Jr., *No Frills Textualism*, 119 HARV. L. REV. 2041, 2044–45 (2006) (reviewing VERMEULE, *supra*) (asserting that an "institutional turn started almost a century ago" in legal scholarship and practical theorizing); *cf.* Elizabeth Garrett & Adrian Vermeule, *Institutional Design of a Thayerian Congress*, 50 DUKE L.J. 1277, 1278 (2001) ("The massive scale of the political branches relative to the judiciary—measured in resources, personnel and organizational capacities—ensures that, across a broad range of constitutional questions, the legislative process rather than the Court has de jure or de facto authority to decide constitutional questions.").

[41] *See* Mark Bartholomew, *Advertising and Social Identity*, 58 BUFF. L. REV. 931, 941–42 (2010) (discussing the notable role that advertising and branding may have in our opportunities for identity formation, perhaps as old forms of religion, family, and geography become less constraining).

[42] *See, e.g.*, Martin J. Eppler & Jeanne Mengis, *The Concept of Information Overload: A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines*, 20 INFO. SOC'Y 325, 331, 333 & tbl. 4 (2004) (listing, among the symptoms of information overload, "[a]rbitrary information analysis and organization" including ignoring information, losing control over information, superficial analysis, loss of differentiation,

speech disputes with new learning about "commercial" interactions, we have to face John Hart Ely's nagging suggestion—perhaps more darkly poignant in a politically riven society—that "[t]here simply does not exist *a* method of moral philosophy."[43] The point probably is overstated but it remains a good warning. That said, the Justices, if not other judges, often do have the chance "to follow the ways of the scholar,"[44] if not the professional philosopher. Some people might hope for real judicial progress on these and other constitutional disputes. There is, in any event, a roughly parallel brand of principled lawyer's reasoning in the Court's opinions and in some legal scholarship on commercial speech.

Whatever the quality of the early commercial speech opinions as philosophical inquiries, the Court's early efforts in the field could boast significant bipartisan and trans-ideological support.[45] When the Court invalidated flat restrictions on a utility company's promotional advertising and announced a four-part test for commercial speech claims in the famous case of *Central Hudson Gas & Electric Corp. v. Public Service Commission*,[46] once again only Justice Rehnquist dissented.[47] A group of Justices did refuse to join Justice Powell's majority opinion on the ground that he offered insufficient protection to commercial advertising,[48] or threatened to unjustifiably expand the range of commercial speech doctrine at the expense of more constitutionally valuable promotional exhortations.[49] But this group of Justices (Brennan, Blackmun, and Stevens) did not obviously share one philosophy of judging, let alone partisan affiliation or ordinary policy preferences. They certainly were not easily classified as the most pro-business faction on the Court. However the Justices were

---

overestimation of peripheral cues, and misinterpretation); Sheena S. Iyengar & Mark R. Lepper, *When Choice Is Demotivating: Can One Desire Too Much of a Good Thing?*, 79 J. PERSONALITY & SOC. PSYCHOL. 995, 1003 (2000) (reporting results of field studies indicating that some consumers are deterred from purchasing when the option set increases); Naresh K. Malhotra, *Information Load and Consumer Decision Making*, 8 J. CONSUMER RES. 419, 424, 427–28 (1982) (separating experimentally the number of *options* from the number of option *attributes*, and finding that increasing either is associated with decreasing decisional accuracy, measured by respondents' own preferences, though the effects were apparently triggered at different numerical levels); Barry Schwartz et al., *Maximizing Versus Satisficing: Happiness Is a Matter of Choice*, 83 J. PERSONALITY & SOC. PSYCHOL. 1178, 1179, 1193 (2002) (examining evidence of an increasing sense of regret when consumers face large numbers of choices, but distinguishing more-regretful maximizers from less-careful satisficers).

[43] JOHN HART ELY, DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW 58 (1980).

[44] ALEXANDER M. BICKEL, THE LEAST DANGEROUS BRANCH: THE SUPREME COURT AT THE BAR OF POLITICS 25 (2d ed., Yale Univ. Press 1986) (1962).

[45] *See supra* notes 31–35 and accompanying text.

[46] *See* 447 U.S. 557, 563–66 (1980).

[47] *See id.* at 583 (Rehnquist, J., dissenting).

[48] *See id.* at 573 (Blackmun, J., joined by Brennan, J., concurring).

[49] *See id.* at 579 (Stevens, J., joined by Brennan, J., concurring).

devising four-part tests or rigid rules, there did not appear to be an easy formula for predicting their positions based on conventional left/right divisions.

The next best illustration of crosscutting agreements might be *44 Liquormart, Inc. v. Rhode Island*.[50] All nine Justices agreed that government may not outright prohibit price advertising for alcohol,[51] and their disagreement over the proper shape of constitutional doctrine showed nothing like the well-known cleavages in abortion, religion, and other newsworthy topics. Justices Stevens, Kennedy, and Ginsburg indicated that strict judicial review was appropriate for government attempts to prohibit dissemination of truthful and nonmisleading commercial advertising, at least when not related to a "fair bargaining process."[52] The regulation of commercial advertising to eliminate false, misleading, or overly aggressive sales pitches would be entitled to less demanding review.[53] Justice Thomas wanted to go further and make per se unconstitutional any government effort to influence market choices through the maintenance of consumer ignorance.[54] But Justice Scalia withheld judgment on the correct content of the doctrine, despite his sense that the *Central Hudson* test had "nothing more than policy intuition to support it."[55] The Justices who were most friendly to regulation and most protective of *Central Hudson*'s abstract intermediate scrutiny were Justice Breyer from the supposed left, Justice Souter and Justice O'Connor from the supposed middle, and Chief Justice Rehnquist from the supposed right side of the Court.[56]

C. Familiar Divides

This early structure of disagreement described above—with the Supreme Court fairly receptive to complaints by commercial advertisers while offbeat coalitions spoke up for strict or lax doctrine—might be disintegrating. Any "First Amendment era of good feelings" might well have ended.[57] The Justices certainly have divided into camps of the usual suspects in some relatively recent cases.

---

[50] 517 U.S. 484 (1996) (plurality opinion).

[51] *Id.* at 489.

[52] *Id.* at 501 (opinion of Stevens, J.).

[53] *See id.*

[54] *See id.* at 518 (Thomas, J., concurring).

[55] *Id.* at 517 (Scalia, J., concurring). The parties had not offered evidence on history and long-standing tradition, and Justice Scalia apparently was not ready to conduct the necessary research. *See id.*

[56] *See id.* at 532 (O'Connor, J., concurring) ("Because we need go no further, I would not here undertake the question whether the test we have employed since *Central Hudson* should be displaced."). Note some resemblance to the coalition of centrists on campaign-finance issues.

[57] BURT NEUBORNE, MADISON'S MUSIC: ON READING THE FIRST AMENDMENT 113 (2015); *id.* at 115 (suggesting that "[a]fter 2000, Republican and Democratic justices began to revert to type").

A possible forerunner was the 2001 divide in *Lorillard Tobacco Co. v. Reilly*,[58] which addressed cigarette, smokeless tobacco, and cigar advertising and promotion.[59] This time, a more familiar group of dissenters coalesced, albeit not to demand radical doctrinal change.[60] Justices Stevens, Ginsburg, Breyer, and Souter contended that the state should be allowed to go forward and defend at trial its restriction on tobacco advertising within 1,000 feet of schools and playgrounds.[61] The first three of these Justices also rejected the Court's invalidation of a regulation requiring that displays not be too low to the ground, close to eye level for children.[62]

Lorillard was hardly the bitterest split on the Court in that era, but there are other instances of conventional divisions in the commercial speech field. Worth mentioning is *Thompson v. Western States Medical Center*.[63] The case involved restrictive conditions on the promotion of compounded prescription drugs if those mixtures had not completed a rigorous premarket approval process at the Food and Drug Administration.[64] The issue produced a 5–4 divide to which we became accustomed during this time frame.[65] Finally, we now have the potentially monumental decision in *Sorrell v. IMS Health Inc.*[66] There, a 6–3 majority pushed commercial speech doctrine into big data territory, cabining regulator power to restrain the collection and use for marketing of data collected on prescription drug practices.[67] The majority attempted to recognize new data-driven privacy questions, but thought that the State was rigging "a debate" about privacy.[68] Justice Sotomayor joined the majority[69] but the dissenters were Justices Ginsburg, Breyer, and Kagan, who charged the majority with misjudging an ordinary regulatory effort for health and against sharp marketing practices.[70]

---

[58] 533 U.S. 525 (2001). As a young associate, one of us (Samaha) helped represent Blue Cross and Blue Shield of Minnesota and the State of Minnesota in their lawsuit against the tobacco industry and its trade associations. Part of his work involved First Amendment objections to the suit. The views that we express here, of course, are our own and do not necessarily reflect those of Blue Cross or the State of Minnesota.

[59] *Id.* at 532.

[60] *See id.* at 590, 599–603 (Stevens, J., concurring in part and dissenting in part).

[61] *See id.*

[62] *See id.* at 604–05.

[63] 535 U.S. 357 (2002).

[64] *See id.* at 368–69 (describing the statute and the federal government's defense).

[65] *See id.* at 389 (Breyer, J., dissenting) (raising concerns that the majority's application of the *Central Hudson* test might produce "a tragic constitutional misunderstanding" in which courts interfere with "what ought to be a legislative or regulatory decision about the best way to protect the health and safety of the American public").

[66] 564 U.S. 552 (2011).

[67] *See id.* at 557.

[68] *Id.* at 579–80. The majority did stress its conclusion that the statute in question was insufficiently broad and rigid to serve its asserted goals. *See id.* at 580.

[69] *See id.* at 555.

[70] *See id.* at 580–81, 602–03 (Breyer, J., dissenting) (expressing worries about a return to pre–New Deal judicial aggression toward "ordinary economic regulation"); *see also*

True, the number of such divided commercial speech decisions is not large. Systematic empirical analysis probably is not worthwhile. Moreover, we can find counterexamples of relatively unified positions. A recent case involving disclosure, *Milavetz, Gallop & Milavetz v. United States*,[71] produced fairly widespread agreement among the Justices on the proper outcome.[72] But the question remains how the Justices and other judges will decide, or fracture over, future waves of bleeding-edge controversies surrounding the boundaries of commercial speech. Judges on the federal courts of appeals and state courts already are facing new angles on the commercial speech field, and we should be inquiring into how they approach the upstream issues of doctrinal construction as well as the downstream issues of application to particular controversies.

Consider, then, a number of emerging commercial speech issues on which ideology in a loose sense seems unavoidable, and on which a narrower conception of ideological division might also appear. For example, should judges be concentrating on the character of the government regulation or the character of the alleged speech at issue? Older doctrine appeared to screen out commercial speech claimants depending on whether the content of their (proposed) advertising was false, misleading, or proposed an unlawful transaction.[73] But perhaps judges will at least sometimes shift their attention to the regulation's target, as they often do in other fields.[74] Moreover, what counts as a misleading statement, exactly, and how much discretion should administrative officials have in locating the boundaries? A contemporary D.C. Circuit decision shows judges pondering whether a federal agency could demand two sound empirical studies of the beneficial effects of pomegranate juice, instead of just one.[75]

LAURENCE TRIBE & JOSHUA MATZ, UNCERTAIN JUSTICE: THE ROBERTS COURT AND THE CONSTITUTION 84 (2014) ("In an information age, as the line between economic transactions and speech blurs, the *Sorrell* approach might imperil whole swaths of financial, corporate, consumer, and medical regulation.").

[71] 559 U.S. 229, 249 (2010) (following *Zauderer* and upholding a disclosure requirement).

[72] *See id.* at 231.

[73] *See* Adam M. Samaha, *Litigant Sensitivity in First Amendment Law*, 98 Nw. U. L. REV. 1291, 1329–33 (2004) (describing cases and arguments, and concluding that "the filtering question in commercial speech cases is bound to arise again").

[74] *See* Retail Dig. Network, LLC v. Appelsmith, 810 F.3d 638, 648 (9th Cir. 2016) (remanding a display company's claim against limits on alcohol wholesaler paid advertisements and indicating tougher scrutiny for content-based regulation after *Sorrell*, though continuing to refer to "laws burdening commercial speech" as the trigger for the doctrinal test). In early work, one of us characterized this legal design choice as one between litigant-sensitive and litigant-*in*sensitive doctrine. *See* Samaha, *supra* note 73, at 1295–96.

[75] *See* POM Wonderful, LLC v. FTC, 777 F.3d 478 (D.C. Cir. 2015) (upholding an FTC finding of deceptiveness, but rejecting an FTC order to prevent misleading advertising insofar as it required at least two randomized clinical trials for any POM claim about disease), *cert. denied*, 136 S. Ct. 1839 (2016).

Other issues will more plainly track policy rifts outside the courthouse. For instance: Is nudging consumer decisions, such as by framing options as losses or gains,[76] sneaky and unconstitutional or not even a regulation of speech? Appellate courts have struggled over whether prohibiting sellers from imposing surcharges on credit card transactions while allowing cash discounts is a ghastly mind game or instead humdrum price regulation.[77] The Supreme Court recently granted certiorari.[78]

When businesses try to develop an image and a cultural resonance that links up with customers' sense of identity, do these efforts count as commercial speech or more highly valued expression? The Federal Circuit went en banc and divided over the government's ability to prohibit a punk band, *The Slants*, from trademarking a potentially racially offensive name, with some judges maintaining that trademarks are subsidies over which government retains significant discretion.[79] The Supreme Court recently granted certiorari on this matter, too.[80]

Finally, when regulators demand that businesses inform the world at large about their operations, as opposed to particular product details, is the government improperly compelling private actors to deliver offensive messages, or legitimately facilitating reflective consumer choice in an age of collapsing boundaries between economic, private, and ethical aspects of life? Lower courts are now debating the boundaries of the government's power to demand disclosure regarding the origins of products—where they came from and how they were made—beyond information about the *x* product, narrowly defined, at the *y* price.[81]

---

[76] *See generally* RICHARD H. THALER & CASS R. SUNSTEIN, NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS (2008) (exploring the malleability of individuals' choices based on changes in presentation).

[77] *Compare* Dana's R.R. Supply v. Att'y Gen. of Fla., 807 F.3d 1235, 1239 (11th Cir. 2015) ("Florida's no-surcharge law directly targets speech to indirectly affect commercial behavior."), *with* Expressions Hair Design v. Schneiderman, 808 F.3d 118, 131 (2d Cir. 2015) ("Because all that [the statute] prohibits is a specific relationship between two prices, it does not regulate speech."), *cert. granted*, 137 S. Ct. 30 (2016).

[78] *See Expressions Hair Design*, 137 S. Ct. at 30.

[79] *See In re* Tam, 808 F.3d 1321, 1328, 1358 (Fed. Cir. 2015) (en banc) (finding the statute's disparagement provision unconstitutional), *cert. granted sub nom.* Lee v. Tam, 137 S. Ct. 30 (2016); *id.* at 1363, 1368 (Dyk, J., concurring in part and dissenting in part) (denying that the statutory provision is facially unconstitutional as to all purely commercial speech, and asserting "[t]hat trademark registration is a subsidy is not open to doubt").

[80] *See Lee*, 137 S. Ct. at 30.

[81] *See, e.g.*, Nat'l Ass'n of Mfrs. v. SEC, 800 F.3d 518, 531 (D.C. Cir. 2015) (invalidating, over a partial dissent, an SEC rule requiring certain companies to state on their websites that their products were not "DRC [Democratic Republic of Congo] conflict free"); Am. Meat Inst. v. U.S. Dep't of Agric., 760 F.3d 18, 20, 22–23 (D.C. Cir. 2014) (en banc) (upholding, over a dissent, country-of-origin labeling and recognizing disclosure interests beyond deception when mandating factual information), *overruling* R.J. Reynolds Tobacco Co. v. FDA, 696 F.3d 1205, 1214, 1222 (D.C. Cir. 2012) (invalidating, over a dissent, an FDA rule issued

Upstream development of constitutional doctrine invites the use of judicial philosophy, and careful empirical study is not needed to know this. But little work has been done to test whether downstream disagreements over commercial speech at the case-result level track nonjudicial policy divides. No one will be surprised to see that a significant degree of judicial disagreement over abortion policy and affirmative action programs matches our proxies for judicial ideology.[82] But judicial divides in nominally commercial fields might not be as easily predicted or understood. The New Deal shift at the Court supposedly established a settlement in which most economic policy would be de-constitutionalized,[83] and so we might not expect to find many areas of constitutional litigation with a clear commercial facet to compare or learn from.

Pioneering work by Cass Sunstein, David Schkade, Lisa Ellman, and Andres Sawicki included commercial speech cases in the U.S. Courts of Appeals within an impressive number of controversial litigation fields.[84] The authors reported that Republican appointees were about six percent more likely to support challenges to commercial speech regulations than Democratic appointees from 1978 through 2004.[85] But the authors noted that this difference did not meet conventional standards for statistical significance,[86] and comparisons with their other case sets suggest that commercial speech cases were on the low end of ordinary ideological divisiveness.[87] More recently, John Coates suggested that corporate speakers are making progress in the federal judiciary on their constitutional claims, and perhaps displacing people as the beneficiaries of free speech litigation.[88] The study is provocative but did not focus on commercial speech, per se, and did not code deeply into appellate court cases.[89]

---

pursuant to a federal statute requiring cigarette packages to include color graphic images depicting negative health consequences of smoking); *see also* Int'l Dairy Foods Ass'n v. Boggs, 622 F.3d 628, 632 (6th Cir. 2010) (invalidating much of an Ohio rule restricting dairy producer claims about non-use of hormones, including a disclosure requirement involving placement).

[82] *See infra* Sections III.B.1–2 (reporting regression results).

[83] *See* Jamal Greene, *What the New Deal Settled*, 15 U. PA. J. CONST. L. 265, 280 (2012) (summarizing conventional wisdom on the New Deal settlement for the domains of deferential as opposed to more-intense judicial review).

[84] *See* CASS R. SUNSTEIN ET AL., ARE JUDGES POLITICAL? AN EMPIRICAL ANALYSIS OF THE FEDERAL JUDICIARY (2006).

[85] *See id.* at 39.

[86] *See id.* at 165 n.56 (reporting $p = 0.13$).

[87] *See id.* at 26–27 fig. 2-2.

[88] *See* John C. Coates IV, *Corporate Speech & the First Amendment: History, Data, and Implications*, 30 CONST. COMMENT. 223 (2015).

[89] *See id.* at 249 (reporting that "cases currently in the Courts of Appeal under *Central Hudson* predominantly do not involve expressive businesses, but are attacks on laws and

Judges on those intermediate courts are thought to show lower levels of ideological division compared to the Supreme Court, in the downstream sense of case results tending to match preference divisions in wider society.[90] Their mix of cases is distinctive, often routine but also covering the hardest of the hard cases. In any event much law is developed, auditioned, and even effectively finalized at this intermediate level. Furthermore, the mix of cases within a given circuit is generally subject to random assignment across judges within the circuit.[91] "Related cases" are an exception,[92] but many empirical studies of judicial behavior take advantage of the largely random assignment practice of the U.S. Courts of Appeals in the modern era.

What can we learn, then, from more data?

II. DATA AND METHODS

A. Case Sets

For this Article, we analyzed votes cast by U.S. Court of Appeals judges on claims involving commercial speech, the right to keep and bear arms, abortion rights, establishment of religion, and affirmative action challenges. Some of the data were collected earlier and made available by Cass Sunstein and his team (commercial speech claims);[93] the Law Center to Prevent Gun Violence (gun rights claims);[94] Greg Sisk and Michael Heise (establishment clause claims);[95] and Lee Epstein,

---

regulations that inhibit 'speech' by other kinds of businesses in areas of activity incidental or instrumental to their core profit-making activity").

[90] *See, e.g.*, EPSTEIN ET AL., *supra* note 25, at 168.

[91] *See* Adam M. Samaha, *Randomization in Adjudication*, 51 WM. & MARY L. REV. 1, 47 (2009). The development and features of case assignment systems are not as well understood as one might hope. *See id.* ("There seems to be no general historical account of randomization's rise in case assignment protocols . . . .").

[92] *See* J. Robert Brown, Jr. & Allison Herren Lee, *Neutral Assignment of Judges at the Court of Appeals*, 78 TEX. L. REV. 1037, 1039 (2000) (offering an example in one circuit).

[93] *See* SUNSTEIN ET AL., *supra* note 84, at 160–61 n.17; *see also* Cass R. Sunstein et al., *Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation*, 90 VA. L. REV. 301 (2004). The Sunstein dataset on commercial speech cases goes back to 1978 and ends in 2004. *See* SUNSTEIN ET AL., *supra* note 84, at 160–61 n.17. We thank Andres Sawicki for making the data available to us.

[94] This database of gun rights decisions, in state and federal courts since *Heller*, is proprietary but was generously shared with the authors by the organization.

[95] *See* Gregory C. Sisk & Michael Heise, *Ideology "All the Way Down"? An Empirical Study of Establishment Clause Decisions in the Federal Courts*, 110 MICH. L. REV. 1201 (2012). The Sisk and Heise data on establishment clause cases ends in 2005. Their dataset is available at EMPIRICAL STUDY OF RELIGIOUS LIBERTY DECISIONS, http://courseweb.stthomas.edu/gcsisk/religion.study.data/cover.html [https://perma.cc/XN9D-52W4].

Richard Posner, and William Landes (anti-affirmative action claims).[96] All of the preexisting case coding was reviewed by Samaha and corrections were made.[97] Samaha constructed the abortion rights case set from scratch.

The new and enlarged case sets have several useful features. First, recent cases were added to bring the data forward through June 2016,[98] and therefore the data now include votes by judges appointed by President Obama. Second, judge votes were coded to allow support for a claim or claims either in full or only in part. Third, to reduce human error and to increase the speed of data collection, some of the coding was automated. Many of the case names, citations, opinion dates, judgments, and names of the panel members were scraped from Westlaw using an application written by Luke Samaha.[99]

The case selection criteria for these preexisting datasets is not always clear, which is not surprising for the lawyer's task of collecting relevant cases. Relevance, if at all sophisticated, depends on some judgment calls. We replicated as best we could the earlier criteria. We also made efforts to keep a record of cases that were collected in initial Westlaw searches but that we excluded from the final case sets. This recording, which includes brief explanations, helped to assure consistency in the standards for inclusion even though those standards are difficult to restate as clear rules. The results at least are fairly transparent for other researchers.

Time frames also are worth explaining. Four of the five case sets are coded through June 2016,[100] which is a recent and convenient date. This time frame ends with the most recent complete Supreme Court Term, which ended near the close of the Obama administration and shortly before Trump's presidency. The exception for now is the establishment clause case set,[101] which ends earlier. As a whole, the

---

[96] *See* EPSTEIN ET AL., *supra* note 25, at 157–58, 204 (indicating that the Epstein dataset builds on the original Sunstein dataset, adding cases through 2008). Their dataset is available at *Datasets, Full Inventory*, THE BEHAVIOR OF FEDERAL JUDGES, http://epstein.wustl.edu/research/behaviorJudges/chapters.php?reg=11 [https://perma.cc/V3RT-NMUJ].

[97] Reviewing the judge votes in each case was important. Sometimes law-student coding is subject only to scattered mistakes (i.e., the pre-existing commercial speech data set). Sometimes the student coding is less reliable (i.e., a sizable fraction of errors in coding judge votes in affirmative action cases). Any manual coding operation of a useful size faces the risk of error, of course. For what it may be worth, we are confident that we have improved the accuracy and usefulness of the existing case data in these fields.

[98] The exception, for the time being, is the establishment clause case set, which currently ends in 2005. *See infra* Table 1.0.

[99] Enterprise Architect. The application was coded using Python. Some judgments and panel member names had to be revised by one of the authors or were omitted by this pioneering scraper. But the scraping was hands-free, fast, and usually effective—especially for more recent decisions. The automation saved a large number of human hours.

[100] *See infra* Table 1.0.

[101] *See infra* Table 1.0.

recent end points for our case sets will support the careful study of contemporary constitutional litigation as it now stands.

With respect to starting points, each case set begins on a different date. These starting points were pegged to important developments in constitutional doctrine at the Supreme Court, as explained below. The result is that the case sets are not fully comparable in years of decision, but their starting points are driven by the same theory. Starting point choices, too, involve judgment. But any constitutional scholar who is familiar with these doctrinal areas should immediately recognize the Court cases that we used as starting points:

Commercial Speech—*Central Hudson Gas & Electric Corp. v. Public Service Commission* (1980)[102]**:** The *Central Hudson* case formulated the modern standard for testing commercial speech claims. Each component of the prevailing doctrine allows some room for judgment, and the final three considerations are self-evidently toward the standards side of the rules-standards spectrum. Judges must decide whether the regulatory interest is "substantial," whether the regulation in question "directly advances" the asserted interest,[103] and whether the fit between the regulation and the interest is, as a subsequent case held, "reasonable."[104]

Gun Rights—*District of Columbia v. Heller* (2008)[105]**:** Contemporary gun rights decisions also suggest significant room for judicial judgment calls, but for different reasons. The Supreme Court has yet to establish a doctrinal framework for analyzing large numbers of gun rights claims, and so lower courts are left to generate doctrine or simply offer results without a firm mid-level decision protocol. The Supreme Court has established that the right to keep and bear arms is individual in the sense of being untethered to militia service, and that law-abiding non-mentally ill people have a right to have a handgun in their home as against a flat ban on possession.[106] But the Court has yet to provide additional clarity.

Abortion Rights—*Planned Parenthood of Southeastern Pennsylvania v. Casey (1992)*[107]**:** For abortion rights claims, the famous joint opinion in this case embraced an "undue burden" standard while it revised the trimester framework of *Roe v. Wade*.[108] Thus *Casey* is an obvious starting point for analyzing judicial voting behavior, and the formal complexion of the applicable undue burden doctrine is not very different from the *Central Hudson* standard for commercial speech regulation discussed above.

---

[102] 447 U.S. 557 (1980).

[103] *Id.* at 566.

[104] Bd. of Trustees of State Univ. of N.Y. v. Fox, 492 U.S. 469, 480 (1989).

[105] 554 U.S. 570 (2008).

[106] *See id.* at 626–28.

[107] 505 U.S. 833 (1992).

[108] *See id.* at 873–74 (joint opinion) (criticizing the trimester framework in *Roe v. Wade*, 410 U.S. 113 (1973), and endorsing an undue-burden test for a category of abortion regulation).

Establishment Clause—*Lee v. Weisman* (1992)[109]: Current case law offers a number of tests for violations of the establishment clause that are more or less applicable to different situations. A reasonable observer's perspective on government endorsement, if not proselytizing, of religion still seems applicable to government use of religious symbols.[110] This test is comparable in its standard-like character to *Central Hudson*'s test for commercial speech regulation. For government funding of religious activity, the picture is more complicated yet probably more structured. Funding programs that cut checks to individuals who then make choices across religious and secular service providers ordinarily will be upheld,[111] while programs that deliver benefits directly to religious organizations may require special efforts to earmark the benefits for secular activity.[112] The Supreme Court also has deployed a coercion test for religious rituals and prayer with enough flexibility and fact-sensitivity to allow for reasonable disagreement;[113] we begin this case set with the leading coercion case, *Lee v. Weisman*.[114]

Affirmative Action Challenges—*Adarand Constructors, Inc. v. Pena* (1995)[115]: Unlike the other case sets, the Supreme Court has announced that it will apply strict scrutiny to all race-based affirmative action programs.[116] On the other hand, the Court simultaneously emphasized that strict scrutiny will not always be fatal to such programs,[117] and soon enough the Court accepted educational diversity as a sufficiently compelling interest and university judgment as worthy of some measure of deference.[118] This combination of doctrinal messages is adequate to make room in law for disagreements in practice. Finally, in the employment setting, older Supreme Court precedent in the Title VII context indicates significant space for private employers

---

[109] 505 U.S. 577 (1992).

[110] *See* McCreary Cty. v. Am. Civ. Liberties Union of Ky., 545 U.S. 844, 860 (2005) (relying on, among other sources, *Lynch v. Donnelly*, 465 U.S. 668, 688 (1984) (O'Connor, J., concurring) ("Endorsement sends a message to nonadherents that they are outsiders, not full members of the political community . . . .")); *id.* at 866 (relying on a reasonable observer perspective from past cases and separate opinions).

[111] *See* Zelman v. Simmons-Harris, 536 U.S. 639, 652 (2002); Mueller v. Allen, 463 U.S. 388, 398 (1983).

[112] *See* Mitchell v. Helms, 530 U.S. 793, 842–44 (2000) (O'Connor, J., concurring) (discussing the line between direct and indirect aid, and collecting cases).

[113] *Weisman*, 505 U.S. at 587 (reiterating that, at minimum, the Constitution prohibits government from coercing people into supporting or participating in religion).

[114] *See id.* The Supreme Court also has committed itself against sect discrimination by government officials. *See, e.g.*, Fowler v. Rhode Island, 345 U.S. 67, 69 (1953). But this issue probably is not as prominent in day-to-day litigation.

[115] 515 U.S. 200 (1995).

[116] *See id.* at 235.

[117] *See id.* at 237.

[118] *See* Grutter v. Bollinger, 539 U.S. 306, 325 (2003).

to voluntarily adopt affirmative action programs.[119] At the same time, the recently mixed constitutional resistance to affirmative action programs at the Supreme Court means that there is room for reasonable disagreement among judges attempting to understand, elaborate, and apply existing doctrine.[120]

B. Dependent Variables

The dependent variable is a judge vote, rather than a case outcome, on the merits of a claim of interest. A judge's decision on an issue of procedure or justiciability surely can be influenced by the judge's evaluation of the merits of a commercial speech claim, for instance, but those anterior decisions were generally excluded from this study.[121] We also excluded votes to deny and grant rehearing. But we did include votes in cases decided en banc as well as by three-judge panels. We also included votes on applications for stays pending appeal. The claims of interest are defined with reference to the selection criteria for the case sets.

Each judge vote is either "for the claim," "for the claim in part," or "not for the claim even in part." In many of our models and in accord with some prior studies, we collapse the first two possibilities, meaning that a judge vote is coded as supporting the claim even if only in part. But as we will see, it is sometimes valuable to be able to differentiate a judge's full support from partial support for a claim. The nuance can be useful.

However, the likelihood that a vote will be coded as "for the claim in part" is partly a function of how constitutional claims are bundled within cases. More bundling of more claims tends to increase the chance of a partial-support outcome, all else equal. If a judge faces a legal claim that is relatively narrow and conceptualized as a single issue, then partial support for the claim in this given case is unlikely. But if a judge faces claims that are conceptualized as involving multiple issues in the same constitutional domain, then the judge might be more liable to support the claim

---

[119] *See, e.g.*, United Steelworkers of Am. v. Weber, 443 U.S. 193, 197 (1979) (upholding an employer's race-conscious affirmative action plan against a Title VII claim).

[120] *See* Fisher v. Univ. of Tex. at Austin, 136 S. Ct. 2198, 2215 (2016) ("It is the University's ongoing obligation to engage in constant deliberation and continued reflection regarding its admissions policies.").

[121] Cases were excluded from our analysis if the opinions rested on procedural or justiciability issues and did not address the merits of the constitutional claims of interest. An exception to this exclusionary rule was made for cases in which one or more judges on a panel reached the merits while one or more colleagues on the same panel rested their votes on procedure or justiciability. On these occasions, the cases were left in and judges voting to block claims on procedure or justiciability were coded as voting neither for the claim nor for the claim in part. A second exception involves establishment of religion and taxpayer standing. In that doctrinal field, a claimant's standing to sue can be affected by the religion-inflected analysis of *Flast v. Cohen*, 392 U.S. 83 (1968). When *Flast*-related standing to sue on establishment claims was at issue, judge votes on this issue were left in the analysis.

"in part" by either voting for one or more but not all of the claims, or by voting for part of one of the claims. Either kind of vote was coded as "for the claim in part."[122]

To illustrate: In *Retail Digital Network, LLC v. Appelsmith*,[123] a three-judge panel voted unanimously to reverse summary judgment in favor of the government defendants.[124] A display company had challenged certain state law limits on alcohol wholesalers paying for advertisements.[125] The panel explained that, in their view, the State had not yet offered persuasive arguments on the third and fourth prongs of the *Central Hudson* test, but that further proceedings were necessary to know for sure whether the regulation was invalid.[126] So, each judge was coded as voting "for the claim in part," in this instance meaning that the judges supported part of a single claim.

Other cases involve multiple claims, conventionally speaking. In *Planned Parenthood Minnesota v. Rounds*,[127] the panel majority voted to uphold an informed consent law for abortions that included statements regarding human beings, human relationships, and general medical risks of the procedure, but also voted to invalidate a statement regarding suicide risks.[128] So, these two judges were coded as voting "for the claim in part." A judge who dissented in part wanted to uphold each of the four challenged provisions,[129] so this judge was coded as voting against the claim (neither voting for the claim nor voting for the claim in part).

Thus our three-category coding is more nuanced than a two-category coding, but is still a rather dull edge with which to cut through various outcomes. One could code even more precisely, for fractions of support in each case with the denominator defined by analytical sections in judicial opinions, for instance. In *Rounds*, judges who supported one fourth of the plaintiff's constitutional claims got counted as voting for the claims in part, and those judges end up in a separate category from the judge who rejected all four claims. But even a more fine-grained coding of votes would not estimate the doctrinal footprint or social significance of each issue or case. Votes in a case involving a single issue, somehow defined, might involve far higher stakes for the parties and society at large than votes in a case involving five issues, somehow defined. Of course, additional sophistication in manual coding will likely increase errors and reasonable disagreement. In this Article, we offer a modest advance in nuance without exhausting the feasible possibilities for coding outcomes.

---

[122] In a small number of commercial speech cases (four), two different judge votes were coded for each participating judge in order to allow for "deep coding" of a single case with multiple issues.

[123] 810 F.3d 638 (9th Cir. 2016).

[124] *See id.* at 642.

[125] *Id.* at 644–45.

[126] *Id.* at 651–53.

[127] 653 F.3d 662 (8th Cir. 2011), *vacating on reh'g en banc in part*, 686 F.3d 889 (8th Cir. 2012).

[128] *See id.* at 673.

[129] *See id.* at 682 (Gruender, J., concurring in part and dissenting in part).

C. Independent Variables

1. Bare-Bones Models

We started with a bare-bones model in which the only independent variables are a collection of judge traits, with circuit fixed effects and standard errors clustered at the judge level. These models were used to analyze each of the five case sets separately. Demographic traits (sex, race,[130] age, tenure on the court of appeals) were pulled from a Federal Judicial Center database.[131] We include both U.S. Court of Appeals judges and U.S. District Court judges sitting by designation. We exclude Court of International Trade judges sitting by designation, for whom ideology scores are often not readily available.

For judge ideology, we use three different proxies and rotate them into separate regression models. Each scoring system is one-dimensional, is linked to politics outside the judiciary, and cannot perfectly reflect extralegal policy preferences. But these proxies do offer credible ways of examining the relationship, if any, between judicial voting patterns and political disagreement outside the courthouse. In a strict sense, ideology and demographic traits are hard to describe as independent variables with respect to the judges who are doing the voting.[132] On the other hand, we may think of the judicial system of adjudication as selecting—usually at random—a set of judges to vote on claims in a case. This perspective helps us conceptualize judge ideology and (other) demographic traits as independent variables within the larger system of adjudication.

Model 1 uses the political party of the appointing president, which is a simple dichotomous variable that nonetheless tends to perform well compared to competitor proxies. Model 2 uses Judicial Common Space (JCS) scores developed by Lee Epstein and others,[133] which are continuous variables with theoretical bounds of -1.000 to represent far left or liberal ideology and 1.000 to represent far right or conservative

---

[130] We have been informed by Winston Bowman, Associate Historian at the Federal Judicial Center (FJC), that the FJC data on judge race "in the last several decades" has been based on what the judges themselves self-report on a questionnaire from the Department of Justice's Office of Legal Policy. Email from Winston Bowman to Emma Moore (Nov. 16, 2016, 9:52 AM & 9:22 AM) (on file with the authors).

[131] The database is available at FEDERAL JUDICIAL CENTER, http://www.fjc.gov/history/home.nsf/page/judges.html [https://perma.cc/FXU6-3GB3].

[132] On the issue of judge traits such as sex being conceptualized as causal variables, see Christina L. Boyd et al., *Untangling the Causal Effects of Sex on Judging*, 54 AM. J. POL. SCI. 389, 396–97 (2010).

[133] *See* Lee Epstein et al., *The Judicial Common Space*, 23 J.L. ECON. & ORG. 303 (2007); Michael W. Giles et al., *Picking Federal Judges: A Note on Policy and Partisan Selection Agendas*, 54 POL. RES. Q. 623 (2001).

ideology. These scores were developed to match scores for members of Congress and the President and thus facilitate comparisons across institutions. Christina Boyd extended JCS scores to district court judges.[134] Model 3 uses the Database on Ideology, Money in Politics, and Elections (DIME) scores initially developed by Adam Bonica[135] and applied to judges in a recent paper with Maya Sen.[136] Like JCS scores, DIME scores are continuous variables.[137]

Observed DIME scores are based on an interesting bit of behavior—campaign contributions made by the person before he or she became a judge—rather than inferences about each judge's ideology based on other people who were involved in the appointment process.[138] Some federal judges lack actual DIME scores, however, especially older judges.[139] Bonica and Sen report thirty-five percent missing values for all federal court of appeals judges, though only nineteen percent missing for such judges appointed since 2001.[140] We rely on "imputed" DIME scores, as well, which correlate strongly with the observed scores but which are not without weakness.[141]

---

[134] Boyd's databases for federal district judges are available at http://clboyd.net/ideology.html [https://perma.cc/9QLK-JXXT].

[135] *See* Adam Bonica, *Mapping the Ideological Marketplace*, 58 AM. J. POL. SCI. 367 (2014) [hereinafter Bonica, *Mapping*]; Adam Bonica, *Database on Ideology, Money in Politics, and Elections (DIME)*, STAN. U.: SSDS SOC. SCI. DATA COLLECTION, http://data.stanford.edu/dime [https://perma.cc/K8BG-NB5F].

[136] *See* Adam Bonica & Maya Sen, *A Common-Space Scaling of the American Judiciary and Legal Profession*, SEMANTIC SCHOLAR (Oct. 31, 2015), https://pdfs.semanticscholar.org/7572/185e95e52abbc353ad9ec52f8b3d2d7f4fd6.pdf [https://perma.cc/4DLG-R9N9].

[137] *See* Bonica, *Mapping*, *supra* note 135, at 379 (indicating that DIME scores complement roll-call-based measures of legislator ideology, albeit using a different scale).

[138] *See* Bonica & Sen, *supra* note 136, at 1–2.

[139] *See id.*

[140] *See id.* at 7.

[141] *See id.* at 8 (reporting a correlation of $p = 0.81$ between observed and overimputed DIME scores). Bonica and Sen list the factors in their imputation algorithm:

> We include in the multiple imputation model (1) observed DIME and JCS scores, (2) the type of court, (3) whether the judge attended a law school ranked #1–14, 15–25, 26–50, 51–70, 71–100, or outside the top 100, (4) birth year, (5) gender, (6) race or ethnicity, (7) prosecutor experience, (8) public defender experience, (9) professorial or adjunct experience, (10) whether they were rated "Well Qualified" by the American Bar Association, and (11) whether the judge clerked for a liberal or conservative judge. We also include variables reflecting the political environment at time of nomination, including (12) whether the nomination arose during a divided government, and (13) dummy variables for identity of the President making the nomination. Lastly, we included (14) a variable that captures the average DW-NOMINATE score for members of the home-state congressional delegation.

Id. (footnotes omitted).

Along with the debut efforts to validate DIME scores, this study offers an early look at how the new proxy for judicial ideology compares to the now-standard options.

2. Kitchen-Sink Models

We also developed a more complex model, to investigate other plausible forces and to see whether any indication of ideology in the bare-bones model would disappear (or reappear) once other factors were controlled for. Our kitchen-sink models can be thought of as robustness checks, among other functions served.

One focus of this effort was formal law. True, even well-constructed legal variables may not show up as statistically significant within a law-abiding judiciary, given selection effects in litigation.[142] Good lawyers and clients who can afford not to litigate will avoid falling into areas of law (procedural, substantive, or otherwise) that would disadvantage them. Instead, those actors will settle their disputes, sculpt their legal claims and workaround the formal legal barriers, or lump it. Nonetheless, confidently identifying the domains and magnitudes of ideological influence depends on a well-developed picture of law and legal doctrine. Particularly when the number of observations is low, law variables can help assure that a set of judges with a particular ideological leaning did not see a clump of cases legally skewed toward one outcome that escaped the docket of a second set of judges with a different ideological leaning. In addition to developing admittedly imperfect yet realistic law-grounded variables, we added other independent variables that are standard in the field, plus a few others.

a. Law Variables

Procedure Score: The U.S. Courts of Appeals tend to affirm U.S. District Court judgments,[143] but this "affirmance slant" may or may not be related to formal law.

---

[142] *See, e.g.*, George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 4–5 (1984) (modeling litigation selection effects with symmetric stakes); Frederick Schauer, *Judging in a Corner of the Law*, 61 S. CAL. L. REV. 1717, 1723–27 (1988) (addressing appellate cases); *see also* EPSTEIN ET AL., *supra* note 25, at 232 (discussing filtering of appeals if "legalist methodology" can resolve the case and lawyers and litigants are rational). One key assumption in the Priest-Klein model involves similar stakes for all sides to the dispute. *See* Priest & Klein, *supra*, at 5 ("[T]he relative stakes to the parties will greatly influence the rate of success in litigation and are likely to be the principal reason why success rates differ from the 50 percent baseline."). Empirical challenges to especially strong selection-effect hypotheses include Theodore Eisenberg, *Testing the Selection Effect: A New Theoretical Framework with Empirical Tests*, 19 J. LEGAL STUD. 337 (1990).

[143] *See* Chris Guthrie & Tracy E. George, *The Futility of Appeal: Disciplinary Insights into the "Affirmance Effect" on the United States Courts of Appeals*, 32 FLA. ST. U. L. REV. 357, 358 (2005).

Affirming judgments because the appellate docket load is heavy is not an indication of fidelity to the law, for example.[144] To better account for the procedural posture of the judgments appealed in our dataset, we constructed a procedure score. The score attempts to track the relevant standard of review established in formal law and, if that standard is de novo, to account for the procedural law that applies to the relevant motion in the district court.[145] Negative scores represent procedural postures in which the claimant is supposed to be at a formal legal disadvantage, while positive scores are meant to represent a formal legal advantage for the claimant. A score of zero indicates no substantial formal legal advantage either way from the procedural posture: for example, cross-motions for summary judgment where both sides' motions are then at issue on appeal.[146]

Most of the scores for most of the procedural postures in our dataset should impress practicing lawyers as uncontroversial—again, as a matter of formal law. For instance, all else equal, a commercial speech claimant should have a harder time attacking an adverse bench trial judgment on appeal (-2) than defending a favorable bench trial judgment (+2) or a preliminary injunction (+2), because the latter two outcomes are supposed to be reviewed only for clear error or abuse of discretion apart from questions of law.[147] Furthermore, successful summary judgment motions and successful motions to dismiss are both reviewed de novo,[148] but parties facing

---

[144] For evidence of affirmance rates increasing in one part of the docket after a dramatic increase of cases to dispose of in another part of the docket, see the excellent Bert I. Huang, *Lightened Scrutiny*, 124 HARV. L. REV. 1109, 1115 (2011).

[145] In a similar spirit but with different coding constraints is Frank Cross's important contribution to understanding the role of procedural posture in the federal courts of appeals. *See* CROSS, *supra* note 10, at 49–56 (suggesting influence of both ideology and procedure, and acknowledging that not every procedural context variable had been coded precisely). A small number of appeals in our dataset arose from federal agency action. For want of a more sophisticated scoring system, petitions for review of agency action were assigned a procedure score of zero.

[146] Occasionally, appellate judges invoke the "constitutional fact" doctrine to justify de novo review over some part of the appeal that would otherwise require some degree of deference to trial-level conclusions. *See, e.g.*, Bloedorn v. Grube, 631 F.3d 1218, 1229 (11th Cir. 2011) ("[W]e review the core constitutional facts de novo, unlike historical facts, which are measured only for clear error."). That doctrine appears to be invoked rarely in our dataset and, at this stage, we have not coded for its invocation. In the absence of a fairly clear preexisting doctrine of constitutional fact, we have been reluctant to code the procedure score for an appellate case based on the judges themselves invoking the doctrine—an event which is at least arguably an outcome that is part of the judges' votes, rather than an independent variable to help explain judge votes.

[147] A list of procedure scores is available in the codebook for this project, which is on file with the authors.

[148] *See, e.g.*, Poughkeepsie Supermarket Corp. v. Dutchess Cty., 648 F. App'x 156, 157 (2d Cir. 2016) (involving a motion to dismiss); Alexander v. Cahill, 598 F.3d 79, 87 (2d Cir. 2010) (involving a motion for summary judgment).

summary judgment must come up with some kind of evidence beyond the pleadings to support their view of contested issues of material fact.[149] All else equal, a claimant who lost on a motion to dismiss should have an easier time attacking the judgment on appeal (+3) compared to a claimant who lost on summary judgment (+2). Some of these scores, however, are subject to reasonable debate and improvement.[150]

Doctrinal Subset Score: The universe of "commercial speech cases" is somewhat diverse. Like any field of repeated litigation, judges developed tributaries of doctrine—without a clean break from the more general doctrinal field in question.[151] Empiricists face judgment calls on whether to treat these apparent doctrinal tributaries separately; in the end, there might not be an empirically defensible universal category for what lawyers call commercial speech cases. From a lawyer's perspective, however, many of these subdomains are easy to identify. Often enough, judges explain to us that they are applying a special doctrine within the field of, say, the constitutional law of commercial speech, and that this special doctrine provides a relative advantage to claimants or others, or a special way of analyzing the issue.

For each case set, we selected three or more doctrinal subsets that are supported by formal doctrine and that appeared with some frequency in our datasets. These subsets were combined into a simple scoring system: Each subset was assigned a value from 1 to 5, based on a judgment of the strength of claims within the subset all else equal; if more than one subset applied to a single judge vote, the subset scores were averaged. To illustrate within the commercial speech case set, we coded for "the law of billboards" (1),[152] disclosure regulations normally governed by *Zauderer* (2),[153] the regulation of professions such as lawyer and chiropractor advertising

---

[149] *See, e.g.*, Celotex Corp. v. Catrett, 477 U.S. 317, 322–24 (1986) (indicating that the federal rules require a nonmoving party who bears the burden of persuasion on a material issue of fact to offer support beyond the party's pleadings, although not necessarily evidence that is already in admissible form).

[150] For example, it is difficult to score precisely any differences in formal legal advantage to claimants between, say, a party defending against a commercial speech claim who appeals from an adverse judgment after a bench trial (+2) and a commercial speech claimant who appeals from a successful motion to dismiss for failure to state a claim (+3). All else equal and concentrating on the formal law of procedure, a claimant probably should prefer to attack a motion to dismiss for which the claimant's well-pled factual allegations are supposed to be taken as true along with plausible inferences therefrom, compared to defending success after a bench trial for which the trial-level fact conclusions are subject to review for clear error. But the comparison is complicated, admittedly, partly because lawyers naturally combine the formal law of procedure with practical judgments about the likelihood of appellate judges disrupting a costly trial compared to a quick and dirty dismissal.

[151] *See* TRIBE, *supra* note 26, at 890–901 (recounting early doctrinal developments).

[152] *See* Metromedia, Inc. v. City of San Diego, 453 U.S. 490, 501 (1981) ("We deal here with the law of billboards.").

[153] *See* Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626, 650 (1985) (observing "material differences between disclosure requirements and outright prohibitions on speech").

(3),[154] the regulation of broadcast advertising (4),[155] and mandatory assessments to finance generic advertising campaigns such as "Beef. It's what's for dinner" (5).[156] Each case set has its own separate list of doctrinal subsets.[157] As with the procedure score, observers should not confidently predict that the doctrinal subset codings will show statistically significant correlations with judge votes. Even if these tributary doctrines are meaningful and all judges follow them, litigation selection effects can moderate or eliminate their significance.

Supreme Court Case Score: We then built another law-related variable based on Supreme Court decisions within two years before a given judge vote. Our theory is that lower court judges pay some attention to messages from the Supreme Court, and that relevant actors will not always be willing or able to adjust their positions to avoid litigation in the wake of a Supreme Court decision. Hence we collected Supreme Court decisions relevant to each of the five case sets, coded each Court decision as either opposing or supporting the relevant claim, and then converted those dummy variables into continuous scores. The conversion was done by adjusting for the number of citations in the courts of appeals within one year and also within two years of the Supreme Court decision, to get a sense of each case's impact below; the largest number of citations for a single one-year time frame (thirty-five for *Agostini v. Felton*[158] during its second year on the books) was used as the denominator. When more than one Supreme Court decision fell within the same time frame, we averaged the scores. We further calibrated these scores according to the overall number of decisions on the merits in the courts of appeals; the same number of citations is more impressive evidence of impact when the overall docket is relatively small. However, this variable is not precise enough to exclude citations in opinions for cases on which the relevant judges are voting. And not every Supreme Court decision will be followed faithfully as opposed to worked around.

b. Affirmance Bias—Circuit Affirmance Score

Scholars have noted a so-called affirmance bias in the federal courts of appeals.[159] Most judgments are outright affirmed when we look at the entire docket of

---

[154] *See, e.g.*, Harrell v. Fla. Bar, 608 F.3d 1241, 1271 (11th Cir. 2010) (upholding the Florida bar's pre-broadcast review of attorney advertising).

[155] *See id.* at 1270–71.

[156] *See, e.g.*, United States v. Frame, 885 F.2d 1119, 1121–22 (3d Cir. 1989).

[157] A list of the doctrinal subsets is available in the codebook for this project, which is on file with the authors.

[158] 521 U.S. 203 (1997) (rejecting an establishment clause claim).

[159] *See* CROSS, *supra* note 10, at 48–49, 52 (reporting that most votes were to affirm in the relevant circuit court dataset, and that circuit courts are more likely to reverse district court

the appellate courts.[160] And this tilt toward letting stand trial-level results probably is not fully accounted for in formal procedural law. A kind of status quo bias might be operating, with the judgment below representing the relevant status quo. Instead of using a dummy variable for whether the claimant is the appellant on a relevant claim, however, we built a more precise measure. We calculated a circuit affirmance score for each judge vote, using that particular circuit's overall affirmance rate for the calendar year in question.[161] We use that affirmance rate if the claimant is the respondent on appeal; if the claimant is the appellant, we use one minus that rate. These numbers thereby account for who is seeking affirmance as well as the variance in the overall willingness to disrupt district court decisions across circuits and across time.

c. Claimant Traits

Claimant Plaintiff: A different kind of status quo bias, also not fully accounted for in formal law, might operate in favor of defendants at the trial level. Plaintiffs always seek to disrupt the status quo in some sense, and perhaps trial judges prefer to leave private ordering and ordinary politics alone. On the other hand, plaintiffs to some extent pick their targets while defendants ordinarily do not. The opportunity to initiate litigation and formulate the initial terms of a dispute easily can be advantageous to the first-moving party; this initial litigation choice should reflect litigation selection effects. Which force will dominate (status quo bias, selection effects, some other force) is not fully clear theoretically. We include a dummy variable for whether the claimant is the plaintiff.

Claimant Pro Se: Like the foregoing traits, being pro se is not supposed to matter under formal law. But of course pro se litigants are usually at a serious disadvantage against parties represented by professional counsel. The only obvious exception is for pro se litigants who are themselves lawyers.[162] We include a dummy variable for whether the claimant is pro se.

---

judgments that favor plaintiffs instead of defendants); *cf.* Donald R. Songer et al., *Do the "Haves" Come Out Ahead over Time? Applying Galanter's Framework to Decisions of the U.S. Courts of Appeals, 1925–1988*, 33 LAW & SOC'Y REV. 811, 819 tbl.2 (1999) (showing a range of success rates on appeal, depending on party type).

[160] *See* Guthrie & George, *supra* note 143, at 359.

[161] In general, we used the year-ending-in-December figures from the Administrative Office of the U.S. Courts. Recent figures are available in Tables B-5 and B-8, *Federal Judicial Caseload Statistics*, U.S. CTS., http://www.uscourts.gov/statistics-reports/analysis-reports/federal-judicial-caseload-statistics [https://perma.cc/BFY9-GD7H]. For years 1992, 1993, and 1994, the December figures were not available so we used the year-ending-in-September figures instead.

[162] Other possible exceptions are for well-informed and skilled jailhouse lawyers.

Claimant Individual: Other claimant traits might also correlate with persuasiveness in court. One supporting theory is that identifiable claimant types are more or less likely to access skilled professional counsel, whether because of resource advantages or otherwise. Another supporting theory is that certain claimant types are more attractive to judges, apart from the indications of formal law. The theoretically plausible coding options are almost limitless, but only some claimant traits are quickly and reliably identified. One of them is whether the claimant is an individual. We include a dummy variable for whether at least one of the claimants is an individual.

Claimant "Small Business" and "Big Business": For the reasons just mentioned, business claimants might be treated more or less favorably by judges in various domains of litigation.[163] At least some business claimants might have greater litigation resources or litigation prowess; or some business claimants might prompt a more protective attitude from judges sympathetic to market players.[164] We make an initial stab at distinguishing big businesses from small businesses. In this initial attempt, we include a dummy variable for whether at least one of the claimants is a small business—operationalized as any business not coded as a big business. And "big business" is subjectively coded for whether at least one of the claimants either is a household name (Anheuser-Busch, for example, or R.J. Reynolds Tobacco) or was described in the relevant judicial opinion as operating on a national or international scale. Only a fairly small number of businesses in the commercial speech case set are coded as "big"; and that label seems inapt for nearly every other claimant in the other case sets. In any event, more objective and precise measures of "big business" are worth pursuing in future research.[165]

Claimant Interest Group: Other claimants with plausibly different and better prospects for success in litigation are organized interest groups and, perhaps, nonprofits with an interest in the field of law at issue. Granted, not all of these groups are relatively well financed nor do all of these groups enjoy wide strategic and tactical discretion to maximize litigation success. Sometimes interest groups "win by losing" in litigation, to the extent that a loss can be blamed on a dangerous judiciary and opposing forces, and that such losses can generate salient examples for sympathetic observers and potential donors to the cause.[166] Even so, trade associations and abortion rights organizations, to name two, are worth flagging to see how they fare

---

[163] *See* Songer et al., *supra* note 159, at 815 tbl.1.

[164] *See id.* at 816 (reviewing how courts have gone through pro-business periods).

[165] *See infra* note 188 and accompanying text (listing a few measurement options for business size or name recognition).

[166] *See generally* Douglas Nejaime, *Winning Through Losing*, 96 IOWA L. REV. 941, 945 (2011) ("When savvy advocates lose in court, they may nonetheless configure the loss in ways that result in productive social movement effects and lead to more effective reform strategies.").

in court. We include a dummy variable for whether at least one of the claimants is an interest group or nonprofit.

d. Case Traits

Criminal Case: Particular case types might also give rise to special judicial treatment. We include a dummy variable for whether the case is criminal in nature, including applications for post-conviction relief such as habeas corpus. Criminal law boasts its own special set of formal legal norms, of course. Criminal cases also tend to be distinctive because of the stakes involved. Criminal defendants regularly face high penalties if an appeal is unsuccessful and low costs for pursuing an appeal, assuming access to an acceptable government-paid attorney.

Level of Law Under Challenge: Different levels of government—federal, state, local—might produce different kinds of laws or decisions that are more or less vulnerable to judicial review. Only rarely have judges made the level of government law or decision relevant to formal constitutional doctrine.[167] Nevertheless, different levels of government respond to different combinations of political forces; different and potentially less diverse political forces are at work at the local and state levels compared to national level politics, even though many policy debates are nationalized in some sense. In addition, different levels of government might well have different levels and quality of legal counsel and legal prowess, before and after litigation begins. Local and even state governments plausibly have fewer resources and possibly less relevant litigation experience compared to federal officials defending federal programs. We include a three-value variable {1, 2, 3} for the level of government under challenge, with the higher values representing state or local government action at issue, with the District of Columbia counted as a local government.[168]

Source of Law Under Challenge: With less certain theoretical grounding, it could be that a claimant's prospects are influenced by the source of law or decision

---

[167] One exception can be found in the field of affirmative action challenges. For a period of time, the Supreme Court indicated that affirmative action programs involving race would be easier to defend at the federal level than when adopted by a local government. *See* Metro Broad., Inc. v. FCC, 497 U.S. 547, 564–65 (1990) (applying intermediate scrutiny to a federal program and distinguishing *Richmond v. J.A. Croson Co.*, 488 U.S. 469, 495 (1989) (plurality opinion), which had adopted strict scrutiny while reviewing a local program), *overruled by* Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 227 (1995) (indicating that some form of strict scrutiny applies to all race-based affirmative action programs). This time period is not within our data set of affirmative action cases.

[168] Some studies of judicial behavior code for the non-claimant's party type. Our government-level and source-of-law variables usually cover the party-type territory, but not always. Occasionally, a relevant claim is made against a private party. For example, a private-party defendant in a civil suit brought by a private-party plaintiff might assert that civil liability would amount to a violation of the First and Fourteenth Amendments.

within a given level of government. Most government institutions are uncontroversially categorized as executive, legislative, or judicial, and it seems possible that the kinds of decisions that each produces or the features of each institution will be seen more or less favorably by judges. For instance, perhaps federal judges generally have more confidence in the judgment of other judges when under constitutional challenge, compared to executive officer decisions that might ordinarily lack the kind of apparent deliberation valued by federal judges. Our priors are not strong here. But we include another three-value variable {1, 2, 3} to represent executive, legislative, and judicial sources of law or decision.

e. Panel Effects—Panel Republicans Fraction

A judge's behavior might be influenced by colleagues. For example, a panel of judges might be influenced by each other's arguments, traits, or positions once they are revealed. Our focus in this study is not intra-panel dynamics, but our datasets do offer a renewed opportunity for examining them. We begin this effort with a simple variable for one type of partisan panel effect: the party affiliation of other judges on each panel, measured here as the fraction of other judges who are Republican appointees.[169] Using a fraction allows extension of the variable from three-judge panels to en banc proceedings. En banc proceedings have special features, of course, but some existing panel effects theories based on deliberation, learning, monitoring, and so forth might apply to the en banc setting. In any event, en banc decisions can be dropped from the analysis if need be.

3. Commercial-Speech Variables

Two additional variables are special to the commercial speech case set, inspired by research into the issues and disagreements among judges.

a. Disclosure Cases

First, we retrained our focus on claims against disclosure. Constitutional doctrine does not indicate that these cases should be especially controversial, but recent litigation

[169] Our approach is in the spirit of tests for so-called contextual panel effects in Joshua Fischman, *Interpreting Circuit Court Voting Patterns: A Social Interactions Framework*, 31 J.L. ECON. & ORG. 808, 813–14, 827–29 (2015) (describing the model and reporting mixed results)—although Fischman was pursuing a sophisticated investigation into a norm of panel consensus based on panel colleagues' votes, somehow revealed, see *id.* at 829–31 (reporting larger and fairly consistent results in an endogenous panel effects model). His findings are impressive but we do not follow up on his model here.

results indicate that the issue is indeed divisive.[170] By separating out commercial speech cases that involve disclosure requirements—such as a warning to consumers, a graphic image on cigarette packaging, an explanation to contextualize promotional messages from lawyers—we can begin to investigate whether judges operate differently in these case settings, and whether "commercial speech" was the most illuminating domain definition. We include a dummy variable to flag commercial speech cases that involved disclosure requirements of some kind, whether or not other commercial speech claims were at issue.

b. Advertising Content

We also wondered whether the content of commercial advertising might influence judicial rulings, beyond what formal constitutional doctrine permits. When judges determine that the content of commercial speech, or the target of commercial speech regulation, is untruthful, misleading, or advertises unlawful transactions, then existing constitutional doctrine does allow this content to drive results.[171] But other advertising content might have an ideological valence and might prompt greater ideological influence on voting behavior.[172] Many commercial speech cases do not involve advertising content with any obvious or even plausible ideological tinge; "the law of billboards" does not lend itself to straightforward ideological coding. But a subset of the cases in our commercial speech set offered up advertising content with a plausible ideological valence.

This subset of cases amenable to ideological categorization was coded, based on our judgment, as either ideologically left or right:

> *Left-Wing Advertising*—advertisements for (1) alcohol, (2) gambling, (3) sexually explicit businesses, and (4) drug paraphernalia.
>
> *Right-Wing Advertising*—advertisements for (1) cigarettes, (2) guns, (3) pregnancy centers, and (4) racially charged or politically incorrect content.[173]

---

[170] *See* sources cited *supra* note 81 (collecting some recent disclosure cases and divisions among judges therein).

[171] *See* Samaha, *supra* note 73, at 1329–33.

[172] For a recent empirical study of Supreme Court voting behavior in free speech cases, which also relates judge votes to speech content, see Epstein et al., *supra* note 16 (using a Bayesian framework and reporting that speech content that was coded liberal correlated with more support for claims protecting such speech by judges with liberal ideology scores).

[173] *See, e.g.*, Hous. Opportunities Made Equal, Inc. v. Cincinnati Enquirer, 943 F.2d 644, 645 (6th Cir. 1991) (involving real estate advertisements which feature only white models).

In a handful of cases, the advertising content was apparent but no single, intuitive ideological grouping was available.[174] Those cases, along with cases in which advertising content was not described or targeted by regulation, were scored as ideologically neutral or unclear. These judgments are debatable, it should be emphasized. Readers are encouraged to critically evaluate these groupings and to suggest alternatives.

III. RESULTS

A. Summary Statistics

The summary statistics in Table 1.0 show that commercial speech cases are roughly typical along several dimensions. The fraction of judge votes for the commercial speech claim(s) at issue is about one-third, for instance, with another one in ten votes for part of the claim(s) at issue. The estimated fraction of votes to affirm is over one half, and the claimant is usually the appellant and very often the plaintiff. The fraction of judge votes involving individual claimants is on the low side, however, while the fraction involving small business claimants is on the high side. No other case set includes claimants assigned to the big-business category. Overall, the cases in the five sets seem to cluster within two or three doctrinal subsets. As well, the procedure scores clump at -2 and +2.

The gun rights case set is an outlier. Nearly three-fourths of the observations involve criminal cases, four in five involve challenges to federal action, the estimated fraction of votes to affirm approaches nine out of ten, and over ninety percent of judge votes are against the claimant. These claims are, bluntly speaking, outstanding losers. Below, we will sometimes break out civil litigation over gun rights, which looks more like the other case sets. The civil claimant success rate in attracting at least partial support for gun rights is about one in five judge votes—which still falls short of our other claimants' track records but is closer.[175] A satisfying explanation for the patterns in gun rights litigation will have to wait, however. No simple explanation, such as legal uncertainty or lax regulation, is convincing at this early stage of research.[176]

---

[174] For example, the *Bad Frog Brewery* case involving a company's effort to use a cartoon image of a frog giving you the finger on its beer bottle labels. *See* Bad Frog Brewery, Inc. v. N.Y. State Liquor Auth., 134 F.3d 87, 90 (2d Cir. 1998).

[175] *See infra* Figure 1.0 (displaying judge vote percentages for various case sets, including civil gun rights claims).

[176] Lawyers and parties considering whether to file or persist in civil litigation have some freedom to pick their targets, and we might well assume that they will choose thoughtfully in light of the costs and potential benefits of litigation. If regulation is generally lax, lawyers and litigants may turn their attention to the more vulnerable regulatory efforts. If legal doctrine is uncertain, we might predict relatively high levels of persistent litigation but not necessarily relatively low levels of success. Legal uncertainty opens room for disagreement and refusal to settle, but does not indicate systematic losses for one side. Although the numbers

Getting started on judicial ideology, the summary statistics indicate that commercial speech claims are like gun rights claims in that ideology might play a small role, while ideology might play a large role in abortion rights, establishment clause, and anti-affirmative action claims. Democratic and Republican appointees vote for commercial speech and gun rights claims at about the same rate, although Democratic appointees might be more willing to support commercial speech claims in part compared to Republican appointees, and Democratic appointees are not yet showing support of gun rights claims in full. In fact, the judicial support for gun rights claims is so terribly low that this field of litigation might not be amenable to grouping with other claims. In any event, the voting patterns of Democratic and Republican appointees look starkly different in the abortion, establishment, and anti-affirmative action case sets. Gaps of more than twenty-five percent open up in these case sets, in the anticipated directions, with Democratic appointees also showing a twelve percent greater willingness to support abortion rights claims in part.

---

are small, it is interesting to note that the success rate for abortion rights claims during the eight years after *Casey* is higher, not lower, than the success rate for the entire abortion rights case set: About 64% of the votes were for the claim(s) at least in part, compared to 58% for the entire case set, with a 40% gap between Republican and Democratic appointees in the early period ($n = 88$).

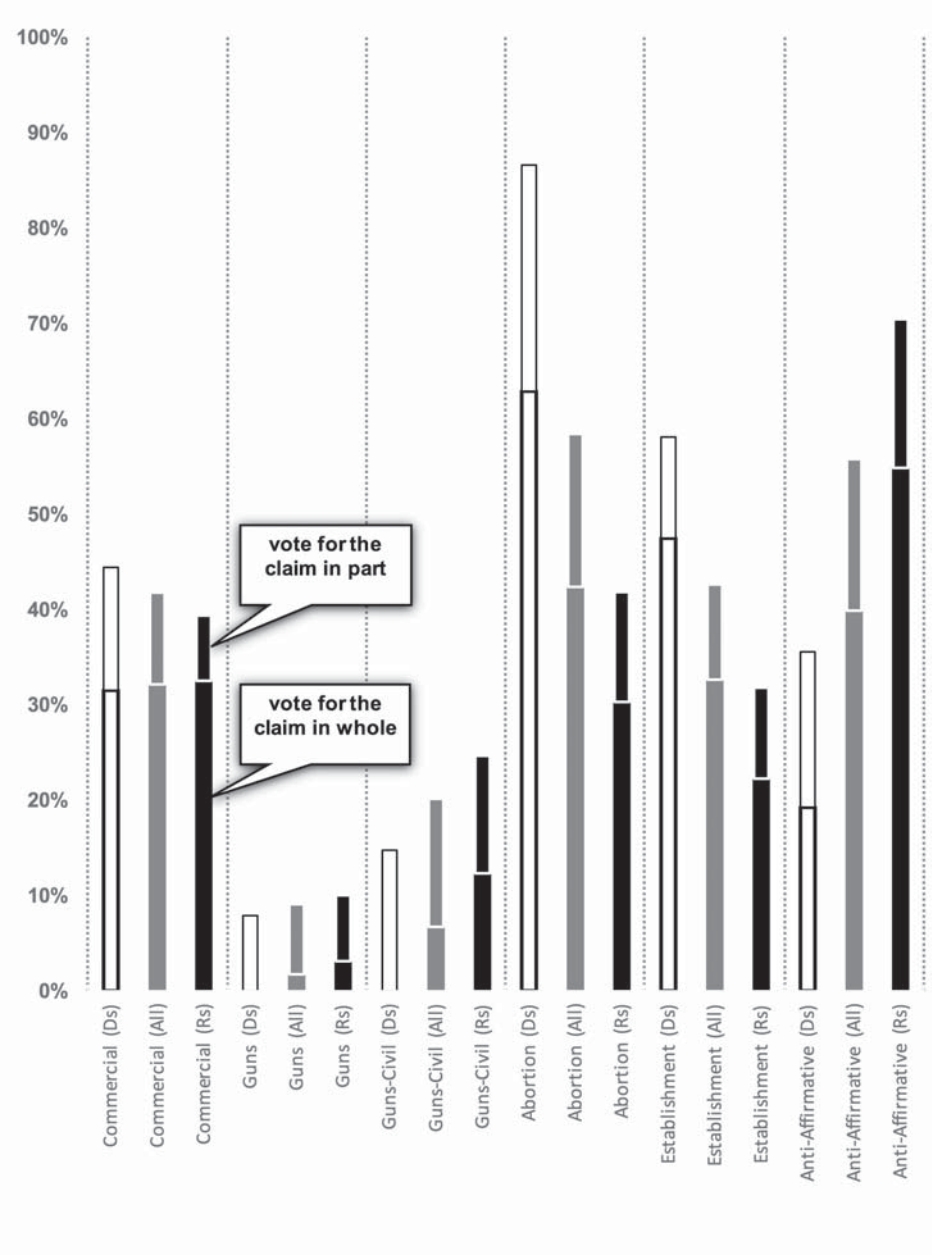
Among the possibilities worth considering are stakes and resources. Perhaps, for example, the litigation arm of the gun rights movement is generally better financed than other constitutional litigation shops, and can afford to litigate claims that are unlikely to prevail. And perhaps a high fraction of litigation losses are tolerable for this class of litigants because persistent litigation maintains high expected costs for regulators who otherwise would like to innovate with new gun policies—and perhaps litigation losses can be used to promote the cause to gun owners, who may be reminded that judges are not willing to establish their preferred gun policies and who may then increase their material support for the broader cause. Or perhaps gun rights claimants and lawyers are relatively more committed to their cause, are less influenced by a global litigation plan of some organizing body, and are not dissuaded by judicial rejection. But again, the factors that might make gun rights litigation special will have to be explored in future work.

Table 1.0: Summary Statistics

	Commercial Speech 1980–2016	Gun Rights 2008–2016	Abortion Rights 1992–2016	Establishment Clause 1992–2005	Anti-Affirmative Action 1995–2016
Observations	759	517	262	481	321
Vote for the claim(s)	32%	2%	42%	33%	40%
Vote for part of the claim(s)	10%	7%	16%	10%	16%
Vote for neither of the above	58%	91%	42%	57%	44%
Republican vote for the claim(s)	33%	3%	30%	22%	55%
Democrat vote for the claim(s)	32%	0%	63%	47%	19%
Republican-Democrat difference	1%	3%	-33%	-25%	36%
Republican vote for part of the claim(s)	7%	7%	12%	10%	16%
Democrat vote for part of the claim(s)	13%	8%	24%	11%	16%
Republican-Democrat difference	-6%	-1%	-12%	-1%	-1%
Vote for claim, claimant appellant	15%	0%	35%	17%	15%
Vote against claim, nonclaimant appellant	42%	87%	7%	43%	32%
Vote to affirm (estimated)	57%	87%	42%	59%	47%
Criminal case	1%	74%	0%	4%	0%
Published opinion	90%	54%	99%	96%	97%
En banc	10%	4%	20%	24%	23%
Review of agency	6%	0%	0%	0%	2%
Judge Republican appointee	54%	56%	63%	59%	58%
Judge JCS (mean)	0.061	0.063	0.092	0.067	0.064
Judge DIME with imputed values (mean)	0.088	0.107	0.261	0.140	0.122
Judge age at time of vote (mean years)	64	66	63	62	64
Judge tenure at time of vote (mean years)	14	16	14	13	14

	Commercial Speech	Gun Rights	Abortion Rights	Establishment Clause	Anti-Affirmative Action
	1980–2016	2008–2016	1992–2016	1992–2005	1995–2016
Judge male	78%	76%	79%	83%	80%
Judge white	86%	79%	90%	87%	88%
Judge Asian American	2%	0%	1%	1%	1%
Judge Hispanic	5%	8%	4%	4%	4%
Judge African American	7%	12%	5%	8%	7%
District judge	8%	4%	7%	5%	3%
Panel Republicans, fraction of others (mean)	0.54	0.56	0.63	0.58	0.58
Claimant plaintiff	87%	29%	99%	95%	86%
Claimant appellant (no cross appeals)	64%	95%	17%	63%	63%
Claimant pro se	1%	6%	1%	4%	2%
Individual claimant	45%	100%	91%	88%	76%
"Small business" claimant	55%	5%	42%	2%	10%
"Big business" claimant	11%	0%	0%	0%	0%
Interest group claimant	19%	10%	46%	33%	21%
Amicus participation	34%	14%	47%	41%	49%
Level of law challenged 1, federal	27%	80%	5%	11%	17%
Level of law challenged 2, state	41%	9%	94%	30%	29%
Level of law challenged 3, local	32%	11%	1%	59%	45%
Source of law challenged 1, executive	21%	9%	5%	46%	69%
Source of law challenged 2, legislative	69%	84%	95%	38%	12%
Source of law challenged 3, judicial	9%	7%	0%	2%	10%
Supreme Court case score average (mean)	-0.03	0.18	-0.02	-0.14	0.02
Doctrinal subset score average (mean)	2.65	2.20	3.55	3.01	1.70
Procedure score (mean)	0.19	-1.10	0.47	-0.17	0.76

Figure 1.0: Fraction of Judges Voting for the Claim in Whole or in Part, by Case Set and Party of the Appointing President



B. Regression Analysis

1. Bare-Bones Models

With respect to ideological influence, our bare-bones specifications confirm the indications in the summary statistics. And the evidence of standard ideological divides appears without much complicating influence from other judge traits. Tables A.1, A.2, and A.3 present binomial logit estimates. The dependent variable in these models is dichotomous, measuring whether a judge voted to reject a claim (0) or support it either in part or in whole (1). Each case set is treated as a unique sample and thus estimated separately. The models in each of the three tables are identical with the exception of the ideology variable. Table A.1 presents binomial logit estimates when the party of the appointing president is the proxy for judicial ideology; Table A.2 uses Judicial Common Space scores instead; and Table A.3 uses judge DIME scores including imputed values.

None of our judge demographic traits (age, experience, sex, race) are statistically significant predictors of voting behavior in any of our case sets, with one exception. Judges recorded as Asian American by the Federal Judicial Center appear less likely to vote in favor of establishment clause claims ($p < 0.05$),[177] controlling for other traits including our ideology proxies. But that's it for demography.

In addition, ordinary ideology seems boxed out of some case sets. None of our three judicial ideology variables are statistically significant in the commercial speech case set, in the gun rights case set, or in the gun rights case set when restricted to civil litigation. True, Figure 1.0 does show that Republican appointees supported gun rights claims in civil suits more often than did Democratic appointees, and that a Democratic appointee has yet to support a gun rights claim in full. But, again, the variable identifying judges as Democratic or Republican appointees is not a statistically significant predictor in gun rights cases, nor are the other two proxies for judicial ideology. Perhaps a partisan gap in judge votes will grow and become meaningful if and when gun rights claims get further off the floor. Commercial speech claims, it is worth emphasizing, already are off the floor. These claims have a success rate of over 40%

[177] Such p values represent the probability that a regression coefficient's value would appear as a matter of chance. *See* EPSTEIN ET AL., *supra* note 25, at 20–21. A p value of less than 0.05, for example, indicates that the result is less than 5% likely to have appeared by chance. *Id.* The proper level of statistical significance to use is not entirely clear when decision makers face hard policy choices and reliable information is scarce. *See* Philip J. Cook & Jens Ludwig, *Aiming for Evidence-Based Gun Policy*, 25 J. POL'Y ANALYSIS & MGMT. 691, 694 (2006) ("[T]he standard for policy-relevant evidence should, in our view, be different and based on expected values of costs and benefits for the policies being evaluated."). That said, and for whatever weight that conventions should receive, a p value above 0.05 will not inspire widespread agreement among empirical legal scholars that "the effect is real." Unless otherwise indicated, in our discussion we will treat p values above 0.05 as not statistically significant.

in attracting judge votes for at least part of an objection to advertising regulation. But our proxies for ordinary ideological divisions are not demonstrably helpful in explaining judge voting behavior in the commercial speech case set.

The other case sets are different. All three of our judicial ideology variables are statistically significant ($p < 0.01$) in the abortion rights, establishment clause, and anti-affirmative action case sets.[178]

Figure 2.0 gives a sense of the substantive effects of the three ideology variables across five case sets, with gun rights claims restricted to civil suits. Here we can see the probability—predicted from estimates shown in Tables A.1, A.2, and A.3—that judges with particular ideology scores vote in favor of at least part of the relevant claim(s). In each of these simulations, the ideology variable increases from its minimum value to its maximum value while all other variables are held at their means.[179] The far-left side of the *x*-axes represents judges with the lowest (i.e., the most left-leaning) scores on the ideology variables; the far-right side of the *x*-axes, on the other hand, represents judges with the highest (i.e., the most right-leaning) scores on the ideology variables. Predicted probabilities on the *y*-axes correspond to the solid lines, which are surrounded by 95% confidence intervals, represented by dotted lines.

The different ideology variables do show somewhat different magnitudes of influence. The party of the appointing president indicates somewhat less ideological influence in the abortion, establishment, and anti-affirmative action case sets (where the differences in predicted probabilities between minimum and maximum judge ideology scores range from 0.27 to 0.41), compared to JCS scores (where the probability differences range from 0.39 to 0.60), and DIME scores (where the differences range from 0.63 to 0.73). Choosing the best ideology measure requires additional information and judgment. That said, all three variables and the associated predicted probabilities suggest that garden-variety ideological divisions map onto judicial treatment of abortion rights claims and affirmative action challenges somewhat better than establishment clause claims. The low-versus-high ideology score differences in predicted probabilities are smallest in the establishment clause case set, albeit still significant.

---

[178] Following Epstein, Landes, and Posner, we have clustered standard errors at the judge level in an effort to make our tests for statistical significance more conservative. *See* EPSTEIN ET AL., *supra* note 25, at 23–24 (explaining that judge votes can be treated separately and yet standard errors estimated by clustering observations by judge). "By reducing the number of separate observations in calculating standard errors, clustering produces higher standard errors and therefore lower estimates of statistical significance—and rightly so, for otherwise we would fool ourselves into thinking that we had many more independent observations than we do." *Id.*; *see also* Sag et al., *supra* note 25, at 837 n.168 (discussing clustering at the judge or case level to avoid missing true nulls, and also indicating that fixed effects would be even more effective but, for one thing, statistical models might break down depending on the number of observations). We include circuit fixed effects, but not case or judge fixed effects.

[179] *See* EPSTEIN ET AL., *supra* note 25, at 22–23 (discussing the reporting of marginal effects and predicted probabilities in logistic regression analyses involving dichotomous independent variables).

Table A.1 (Binomial Logit Estimates): Bare-Bones Models—Vote for Claim in Whole or in Part—Party of the Appointing President

Independent Variables	Commercial Speech Model 1	Gun Rights Model 1	Gun Rights—Civil Model 1	Abortion Rights Model 1	Establishment Clause Model 1	Anti-Affirmative Action Model 1
judge_party	-0.133 (0.173)	0.216 (0.327)	0.586 (0.506)	-2.168*** (0.378) [0.85 → 0.44]	-1.258*** (0.228) [0.58 → 0.31]	1.772*** (0.352) [0.34 → 0.69]
judge_age	0.00523 (0.0117)	-0.0220 (0.0314)	-0.0455 (0.0458)	0.0181 (0.0297)	0.0177 (0.0176)	0.00671 (0.0249)
judge_tenure	-0.0119 (0.0110)	0.00931 (0.0295)	0.0533 (0.0445)	-0.0126 (0.0352)	-0.0191 (0.0207)	-0.0427 (0.0286)
judge_gender	-0.0253 (0.221)	-0.174 (0.390)	0.111 (0.597)	0.192 (0.401)	-0.322 (0.282)	-0.489 (0.357)
judge_asian american	0.383 (0.395)	–	–	–	-1.667** (0.777)	0.338 (1.707)
judge_hispanic	0.0290 (0.258)	0.569 (0.384)	0.534 (0.708)	-0.0240 (1.203)	0.847 (0.660)	-0.0257 (0.588)
judge_african american	0.0999 (0.275)	-0.523 (0.641)	-0.693 (1.265)	-0.250 (0.493)	0.198 (0.323)	-1.011 (0.689)
Constant	-1.488** (0.734)	-0.679 (1.892)	1.667 (2.485)	0.760 (1.878)	-1.779 (1.267)	-2.140 (1.504)
Circuit fixed effects	✓	✓	✓	✓	✓	✓
Errors clustered at judge-level	✓	✓	✓	✓	✓	✓
Observations	757	432	115	253	481	309
Pseudo R^2	0.0487	0.0862♦	0.0823♦	0.205♦	0.116	0.209
Chi-squared	58.62	26.60	11.79	45.13	71.02	75.55

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Robust standard errors are in parentheses.

"–" indicates dropped variables.

"♦" indicates the highest pseudo R^2 value among the three models within each case set or case subset. In brackets are predicted probabilities of a vote in favor of the claim(s) or part of the claim(s) as one variable changes [minimum value → maximum value] and all other variables are held at their means.

Table A.2 (Binomial Logit Estimates): Bare-Bones Models—Vote for Claim in Whole or in Part—Judicial Common Space Scores

Independent Variables	Commercial Speech Model 2	Gun Rights Model 2	Gun Rights—Civil Model 2	Abortion Rights Model 2	Establishment Clause Model 2	Anti-Affirmative Action Model 2
judge_JCS	-0.161 (0.258)	0.288 (0.463)	0.319 (0.699)	-3.128*** (0.578) [0.91 → 0.31]	-1.748*** (0.377) [0.64 → 0.25]	2.490*** (0.531) [0.25 → 0.76]
judge_age	0.00543 (0.0118)	-0.0206 (0.0312)	-0.0473 (0.0457)	0.0251 (0.0305)	0.0236 (0.0181)	-0.00258 (0.0237)
judge_tenure	-0.0116 (0.0110)	0.00914 (0.0296)	0.0559 (0.0448)	-0.0252 (0.0325)	-0.0313 (0.0215)	-0.0255 (0.0275)
judge_gender	-0.0123 (0.223)	-0.178 (0.387)	0.0508 (0.588)	0.134 (0.399)	-0.298 (0.284)	-0.710* (0.366)
judge_asian american	0.401 (0.394)	–	–	–	-1.530** (0.682)	0.409 (1.561)
judge_hispanic	-0.0129 (0.254)	0.538 (0.370)	0.360 (0.658)	0.0178 (1.201)	0.905 (0.684)	-0.191 (0.566)
judge_african american	0.111 (0.273)	-0.555 (0.616)	-0.867 (1.236)	0.149 (0.543)	0.212 (0.314)	-1.271* (0.749)
Constant	-1.576** (0.727)	-0.672 (1.896)	2.106 (2.442)	-0.463 (1.896)	-2.532* (1.296)	-0.689 (1.464)
Circuit fixed effects	✓	✓	✓	✓	✓	✓
Errors clustered at judge-level	✓	✓	✓	✓	✓	✓
Observations	755	431	115	251	471	306
Pseudo R2	0.0483	0.0859	0.0756	0.198	0.112	0.197
Chi-squared	58.28	26.42	11.39	44.43	65.84	70.97

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Robust standard errors are in parentheses.

"–" indicates dropped variables.

"♦" indicates the highest pseudo R^2 value among the three models within each case set or case subset. In brackets are predicted probabilities of a vote in favor of the claim(s) or part of the claim(s) as one variable changes [minimum value → maximum value] and all other variables are held at their means.

Table A.3 (Binomial Logit Estimates): Bare-Bones Models—Vote for Claim in Whole or in Part—Judge DIME Scores Including Imputed Values

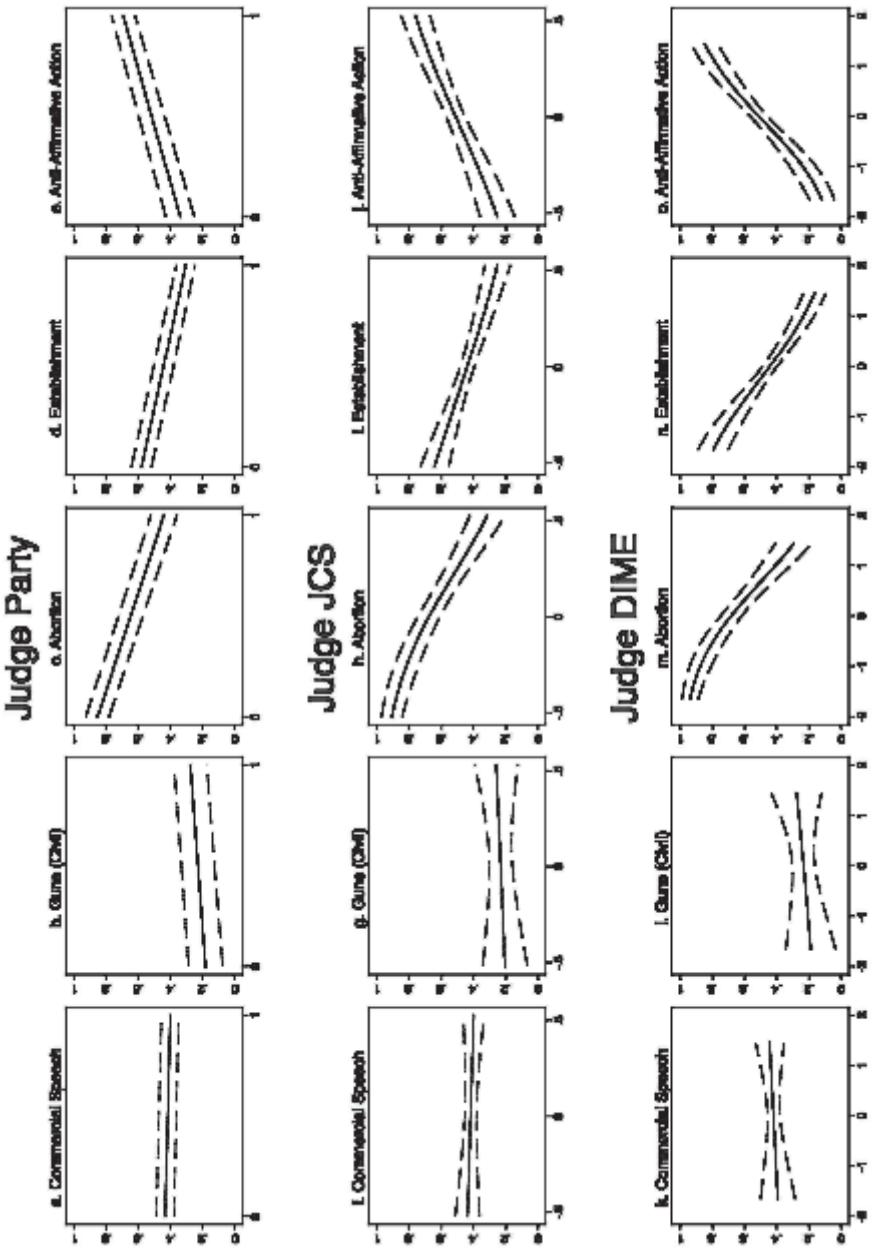
Independent Variables	Commercial Speech Model 3	Gun Rights Model 3	Gun Rights—Civil Model 3	Abortion Rights Model 3	Establishment Clause Model 3	Anti-Affirmative Action Model 3
judge_DIME_imputed	0.0709 (0.130)	0.115 (0.206)	0.174 (0.284)	-1.238*** (0.220) [0.94 → 0.29]	-1.057*** (0.184) [0.80 → 0.17]	1.395*** (0.248) [0.12 → 0.85]
judge_age	0.00552 (0.0124)	-0.0213 (0.0317)	-0.0466 (0.0460)	0.0272 (0.0271)	0.0224 (0.0182)	-0.00177 (0.0250)
judge_tenure	-0.00877 (0.0120)	0.00991 (0.0300)	0.0544 (0.0450)	-0.0304 (0.0331)	-0.0331 (0.0216)	-0.0282 (0.0274)
judge_gender	0.0233 (0.222)	-0.170 (0.396)	0.0536 (0.596)	0.0772 (0.386)	-0.499* (0.293)	-0.370 (0.361)
judge_asian american	0.501 (0.380)	–	–	–	-1.819*** (0.692)	0.775 (1.689)
judge_hispanic	0.0888 (0.244)	0.569 (0.390)	0.424 (0.665)	0.0450 (1.083)	0.521 (0.596)	0.440 (0.665)
judge_african american	0.197 (0.284)	-0.507 (0.638)	-0.796 (1.239)	0.0470 (0.524)	-0.120 (0.337)	-0.749 (0.715)
Constant	-1.721** (0.749)	-0.604 (1.937)	2.140 (2.478)	-0.380 (1.653)	-2.678** (1.228)	-0.616 (1.432)
Circuit fixed effects	✓	✓	✓	✓	✓	✓
Errors clustered at judge-level	✓	✓	✓	✓	✓	✓
Observations	745	432	115	252	478	307
Pseudo R^2	0.0496♦	0.0858	0.0764	0.186	0.129♦	0.225♦
Chi-squared	64.48	26.59	11.16	47.62	80.35	64.34

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Robust standard errors are in parentheses.

"–" indicates dropped variables.

"♦" indicates the highest pseudo R^2 value among the three models within each case set or case subset. In brackets are predicted probabilities of a vote in favor of the claim(s) or part of the claim(s) as one variable changes [minimum value → maximum value] and all other variables are held at their means.

Figure 2.0: Predicted Probabilities of a Vote for the Claim, in Whole or in Part



2. Kitchen-Sink Models

Above we found that ideology mattered in three case sets with minimal controls. To analyze the influence of other factors on judges' voting patterns and explore the extent to which results on the ideology variables are robust to alternative model specifications, we ran a series of what we call "kitchen-sink" models. In addition to the judge trait variables that were used in the models reported above, our kitchen-sink models include controls for a number of variables that may be relevant to judges' voting decisions—such as partisan panel effects, law-related variables, circuit affirmance score, the level of government action under challenge, the source of law under challenge, criminal as opposed to civil cases, and whether the claimant is the plaintiff, pro se, an individual, a big business, or an interest group.[180]

Tables B.1, B.2, and B.3 report binomial logit estimates for our kitchen-sink models. The first noteworthy feature of these tables is the consistency of the estimates on the ideology variables with those reported above in Tables A.1, A.2, and A.3. We continue to see statistically significant correlations between all three of our ideology proxies and voting behavior in the abortion rights, establishment clause, and anti-affirmative action case sets ($p < 0.01$). And again the ideology variables fail to achieve statistical significance in the commercial speech, gun rights, and gun rights civil case sets. These results indicate that our ideology variables are indeed robust to alternative model specifications. The pseudo R^2 values—which try to express a model's goodness of fit with the data[181]—increase within each case set compared to the corresponding values in the bare-bones models.

Other judge traits usually are not reliable indicators of voting behavior in our kitchen-sink models. In gun rights civil cases, however, we find that younger judges and judges who have more experience are more likely to vote for the claim, either in part or in whole ($p < 0.05$). Furthermore, in these kitchen-sink models we have collapsed our race variables into one dichotomous variable that distinguishes judges identifying as African American, Asian American, or Hispanic (1) from judges identifying as white (0), as recorded by the Federal Judicial Center.[182] There is evidence

---

[180] *See supra* Section II.C.2 (detailing the independent variables used in these kitchen-sink models).

[181] A pseudo R^2 can be used with dichotomous dependent variables, such as those we use here. An introduction to the pseudo R^2 statistic from the Institute for Digital Research and Education is available at IDRE, http://www.ats.ucla.edu/stat/mult_pkg/faq/general/Psuedo_RSquareds.htm [https://perma.cc/7ABA-GFN5]. There are many options. We use McFadden's pseudo R^2. *See id.* (detailing McFadden's among other options); *see also* EPSTEIN ET AL., *supra* note 25, at 17–19, 22 (noting that pseudo R^2 measures in logistic regressions involving dichotomous dependent variables "cannot be interpreted in the same way as in linear regression models").

[182] *See supra* note 130 (describing the source of race data).

that judge race matters in anti-affirmative action cases, in the sense that people of color may be more likely to reject the challenge. We note, however, that this finding is sensitive to model specification. The race variable, for example, is not statistically significant in models that use judge DIME scores, but is statistically significant when the judge party variable ($p < 0.10$) and judge JCS variable ($p < 0.05$) are used. A variable identifying male judges is also significant in specifications that use the JCS ideology variable, but not so for the other judge ideology proxies.

As for partisan panel effects, our variable is statistically significant in the establishment clause and affirmative action cases in all three models ($p < 0.05$), but is not statistically significant in other case sets. Thus the fraction of other judges who were appointed by Republican presidents does not seem to influence the probability of votes for or against commercial speech claims, gun rights claims, or abortion rights claims. Our full case sets do include en banc proceedings, which have not been the target of panel effects theorizing. But the results do not change much when the analysis is restricted to three-judge panels. Results are reported in Table B.4, which uses judge party as the ideology proxy for illustrative purposes. The same two case sets show partisan panel effects at the same level of significance, while the other case sets do not. Why partisan panel effects are present and absent in various parts of the docket, whether en banc proceedings are really any different in terms of colleague impact, and whether other kinds of panel effects might be present in our case sets are subjects for future study.

The influence of our law variables is likewise spotty, perhaps indicating the countervailing influence of litigation selection effects. The Supreme Court case score is positive and statistically significant in the gun rights case sets ($p < 0.01$), and in two of the models for anti-affirmative action claims ($p < 0.05$). Otherwise the Supreme Court case score is only marginally significant at best, except in establishment clause cases using judge party for ideology where, oddly, the variable turns negative and statistically significant ($p < 0.05$). In this particular model, it is as if circuit court judges resist the Supreme Court's recent messages in the field, or some litigants overreact to the most recent Court judgment.

The doctrinal subset score is positive and statistically significant in the abortion rights and establishment clause case sets ($p < 0.05$). Doctrinal subset scores are not statistically significant in the commercial speech and gun rights case sets. But these doctrine scores are negative and statistically significant in affirmative action challenges ($p < 0.01$).[183] Thus our impressions about the implications of affirmative action's formal doctrinal tributaries were upside down in terms of judge voting patterns, apparently, whether because of differing litigation selection effects or otherwise. But

[183] The coding of affirmative action doctrinal subsets is 1 for challenges to employment programs, 2 for challenges to educational programs including admissions policies, and 3 for challenges to government contracting programs.

it turned out that, even there, our doctrine scoring system was still somewhat useful in explaining voting patterns.

The procedure score performs even less evenly. Procedure is not statistically significant in the general gun rights, abortion rights, and establishment clause case sets, consistent with lawyers and clients reacting pragmatically to formal procedural law's obstacles and opportunities. However, the procedure score is negative and statistically significant ($p < 0.01$) in the commercial speech case set regardless of model; and the score is sometimes negative and significant in the civil gun rights and anti-affirmative action case sets, depending on the model. This is surprising, because the procedure score was constructed with the intent that higher scores would indicate friendlier formal law for the claimant.[184] Whether because of variable selection effects or otherwise, the formal law of procedure as scored here is not consistently useful in predicting circuit judge votes.

The circuit affirmance score, which is not trained precisely on law, is more reliable. This variable is positive and highly statistically significant ($p < 0.01$) in all three models for three case sets: commercial speech, establishment clause, and anti-affirmative action claims. These results suggest that lawyers and parties are not fully able or willing to adjust their litigation decisions to a circuit's overall inclination to disrupt district court judgments. Knowing this inclination may help predict outcomes even in divisive fields of constitutional litigation that are ideologically charged, generally speaking.

In contrast, neither claimant type nor the level or type of law under challenge is a reliable predictor of success across our case sets, all else equal. Small businesses do appear to perform better than other claimants in gun rights cases, and the law source variable is positive and significant in civil gun rights cases. Additionally, the law level score looks negative in the guns rights and abortion rights cases, indicating that federal and/or state action is somewhat easier to attack than local government action. Those last two results were not easily predicted beforehand, but they remain isolated in those case sets.

With respect to commercial speech claims, being the plaintiff who picks litigation targets does seem to pay off. That variable is positive and statistically significant across models ($p < 0.05$). Hence no status quo bias in the form of judges resisting those who instigate litigation is evident in the commercial speech case set. Finally, the coefficient for "big business" in the full commercial speech case set is positive, but only marginally significant in all three models. Perhaps this impressionistic variable is not precise enough to pick up the influence of business resources or name recognition.

---

[184] *See supra* text accompanying notes 143–50.

Table B.1 (Binomial Logit Estimates): Kitchen-Sink Models—Vote for Claim in Whole or in Part—Party of the Appointing President

Independent Variables	Commercial Speech Model 1	Gun Rights Model 1	Gun Rights—Civil Model 1	Abortion Rights Model 1	Establishment Clause Model 1	Anti-Affirmative Action Model 1
judge_party	-0.119 (0.178)	0.502 (0.418)	0.691 (0.989)	-2.526*** (0.448)	-1.904*** (0.310)	2.388*** (0.385)
judge_age	0.00324 (0.0119)	-0.0436 (0.0356)	-0.183** (0.0758)	0.0336 (0.0316)	0.0204 (0.0198)	0.0111 (0.0280)
judge_tenure	-0.0123 (0.0111)	0.0319 (0.0340)	0.205** (0.0872)	-0.0470 (0.0433)	-0.00838 (0.0236)	-0.0640** (0.0298)
judge_gender	-0.0510 (0.233)	-0.154 (0.458)	1.249 (1.116)	0.341 (0.439)	-0.291 (0.353)	-0.613 (0.413)
judge_of_color †	0.0553 (0.201)	0.181 (0.477)	-0.735 (1.137)	0.192 (0.601)	0.215 (0.409)	-0.845* (0.452)
panel_republicans_fraction	0.0479 (0.244)	0.559 (0.618)	-0.239 (1.965)	-0.477 (0.707)	-1.007** (0.463)	1.530** (0.611)
procedure_score	-0.141*** (0.0483)	-0.0677 (0.424)	-1.321** (0.663)	0.0550 (0.0985)	0.0182 (0.0622)	-0.271** (0.128)
subset_score_ave	0.105 (0.107)	0.0820 (0.189)	1.109 (0.882)	0.574** (0.237)	0.832*** (0.145)	-1.270*** (0.398)
sct_case_score_ave	0.974* (0.572)	2.450*** (0.737)	8.899*** (3.329)	3.035 (1.863)	-1.086** (0.508)	5.888** (2.920)
circuit_affirmance_score	1.246*** (0.340)	-0.566 (3.577)	-19.84 (12.12)	0.852 (0.809)	2.259*** (0.505)	2.715*** (0.774)
case_criminal	-1.534 (1.068)	-15.03*** (3.155)	–	–	-2.632** (1.119)	–
lawchallenged_level	0.0741 (0.152)	-2.108*** (0.734)	-5.035** (2.454)	-16.26*** (1.672)	0.322 (0.251)	-0.219 (0.228)
lawchallenged_source	0.0213 (0.166)	0.0363 (0.388)	5.722*** (1.370)	-1.401 (1.055)	0.0154 (0.178)	0.0763 (0.252)
claimant_plaintiff	0.718** (0.342)	-10.62*** (1.021)	–	–	-0.775 (1.045)	0.00574 (0.935)
claimant_prose	-0.981 (0.767)	–	–	–	-0.641 (0.747)	-0.623 (1.321)
claimant_individual	0.156 (0.223)	–	–	-0.0639 (0.736)	0.572 (0.592)	-1.805*** (0.578)
claimant_business_small	-0.0693 (0.214)	3.251*** (1.052)	7.203*** (2.368)	-1.360* (0.758)	-0.426 (0.870)	0.720 (0.846)
claimant_business_big	0.544* (0.299)	–	–	–	–	–
claimant_interest group	0.293 (0.265)	-0.510 (1.009)	-0.442 (2.126)	-1.502* (0.791)	0.0301 (0.223)	0.287 (0.541)
claimant_other	0.382 (0.715)	– (0.679)	–	–	-1.097 (1.033)	-0.546 (0.598)
Constant	-2.985*** (1.048)	15.90*** (3.763)	13.15 (10.51)	36.70*** (5.286)	-3.595 (2.235)	0.271 (2.276)

Independent Variables	Commercial Speech Model 1	Gun Rights Model 1	Gun Rights—Civil Model 1	Abortion Rights Model 1	Establishment Clause Model 1	Anti-Affirmative Action Model 1
Circuit fixed effects	✓	✓	✓	✓	✓	✓
Errors clustered at judge-level	✓	✓	✓	✓	✓	✓
Observations	757	407	104	247	481	309
Pseudo R^2	0.102	0.279♦	0.513♦	0.298♦	0.291	0.306
Chi-squared	102.7	1089	46.64	321.7	139.5	100.6

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Robust standard errors are in parentheses.

"–" indicates dropped variables.

"♦" indicates the highest pseudo R^2 value among the three models within a case set or case subset.

† In these models, judge race is operationalized as a dichotomous variable, either a person of color (1) or white (0), relying on coding by the Federal Judicial Center.

Table B.2: (Binomial Logit Estimates): Kitchen-Sink Models—Vote for Claim in Whole or in Part—Judicial Common Space Scores

Independent Variables	Commercial Speech Model 2	Gun Rights Model 2	Gun Rights—Civil Model 2	Abortion Rights Model 2	Establishment Clause Model 2	Anti-Affirmative Action Model 2
judge_JCS	-0.156 (0.263)	0.554 (0.547)	-0.223 (1.515)	-3.803*** (0.676)	-2.765*** (0.487)	3.561*** (0.587)
judge_age	0.00328 (0.0120)	-0.0425 (0.0352)	-0.202*** (0.0782)	0.0371 (0.0328)	0.0313 (0.0197)	0.0000238 (0.0264)
judge_tenure	-0.0120 (0.0111)	0.0331 (0.0345)	0.224*** (0.0855)	-0.0604 (0.0405)	-0.0268 (0.0245)	-0.0413 (0.0282)
judge_gender	-0.0416 (0.234)	-0.164 (0.451)	1.439 (1.077)	0.217 (0.432)	-0.268 (0.353)	-0.884** (0.410)
judge_of_color †	0.0454 (0.198)	0.0937 (0.441)	-1.038 (1.082)	0.357 (0.608)	0.279 (0.389)	-1.074** (0.480)
panel_republicans_fraction	0.0352 (0.244)	0.468 (0.622)	-1.333 (1.876)	-0.331 (0.784)	-1.100** (0.470)	1.603** (0.627)
procedure_score	-0.140*** (0.0483)	-0.0546 (0.421)	-1.148* (0.611)	0.0243 (0.101)	0.0247 (0.0621)	-0.296** (0.121)
subset_score_ave	0.105 (0.107)	0.0841 (0.189)	1.106 (0.983)	0.543** (0.247)	0.848*** (0.143)	-1.421*** (0.407)
sct_case_score_ave	0.974* (0.572)	2.462*** (0.734)	9.427*** (3.478)	3.358* (1.862)	-1.010* (0.516)	5.090* (2.811)
circuit_affirmance_score	1.235*** (0.338)	-0.748 (3.573)	-21.10 (13.16)	0.989 (0.866)	2.232*** (0.517)	2.944*** (0.810)
case_criminal	-1.531 (1.071)	-16.57*** (3.166)	–	–	-2.737** (1.100)	–
lawchallenged_level	0.0766 (0.152)	-2.096*** (0.727)	-4.991* (2.775)	-15.99*** (1.587)	0.345 (0.256)	-0.309 (0.240)
lawchallenged_source	0.0310 (0.166)	0.0258 (0.390)	5.780*** (1.388)	-1.079 (1.104)	0.0368 (0.176)	0.288 (0.250)
claimant_plaintiff	0.720** (0.343)	-12.23*** (1.050)	–	–	-0.974 (0.974)	0.462 (0.894)
claimant_prose	-0.980 (0.763)	–	–	–	-0.623 (0.758)	-0.433 (1.378)
claimant _ individual	0.147 (0.222)	–	–	-0.356 (0.767)	0.613 (0.576)	-1.879*** (0.594)
claimant_business_small	-0.0683 (0.213)	3.221*** (1.045)	6.872*** (2.486)	-1.519* (0.785)	-0.247 (0.863)	0.946 (0.854)
claimant_business_big	0.541* (0.298)	–	–	–	–	–
claimant_interest group	0.302 (0.265)	-0.494 (1.013)	-0.0795 (2.269)	-1.670** (0.804)	0.103 (0.224)	0.303 (0.552)
claimant_other	0.375 (0.716)	–	–	–	-1.087 (0.988)	-0.556 (0.594)
Constant	-3.073*** (1.036)	17.68*** (3.830)	14.75 (12.46)	35.01*** (5.218)	-4.753** (2.184)	1.911 (2.247)

Independent Variables	Commercial Speech Model 2	Gun Rights Model 2	Gun Rights—Civil Model 2	Abortion Rights Model 2	Establishment Clause Model 2	Anti-Affirmative Action Model 2
Circuit fixed effects	✓	✓	✓	✓	✓	✓
Errors clustered at judge-level	✓	✓	✓	✓	✓	✓
Observations	755	406	104	245	471	306
Pseudo R^2	0.102	0.276	0.511	0.296	0.287	0.296
Chi-squared	102.2	911.6	46.07	391.3	132.6	105.3

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Robust standard errors are in parentheses.

"–" indicates dropped variables.

"♦" indicates the highest pseudo R^2 value among the three models within a case set or case subset.

† In these models, judge race is operationalized as a dichotomous variable, either a person of color (1) or white (0), relying on coding by the Federal Judicial Center.

Table B.3 (Binomial Logit Estimates): Kitchen-Sink Models—Vote for Claim in Whole or in Part—Judge DIME Scores Including Imputed Values

Independent Variables	Commercial Speech Model 3	Gun Rights Model 3	Gun Rights—Civil Model 3	Abortion Rights Model 3	Establishment Clause Model 3	Anti-Affirmative Action Model 3
judge_DIME_imputed	0.0900 (0.133)	0.249 (0.243)	-0.188 (0.657)	-1.353*** (0.273)	-1.504*** (0.244)	1.867*** (0.287)
judge_age	0.00440 (0.0126)	-0.0418 (0.0355)	-0.207** (0.0834)	0.0363 (0.0293)	0.0260 (0.0220)	0.00116 (0.0294)
judge_tenure	-0.00948 (0.0123)	0.0330 (0.0349)	0.232** (0.0943)	-0.0570 (0.0412)	-0.0297 (0.0260)	-0.0444 (0.0300)
judge_gender	0.00741 (0.232)	-0.161 (0.453)	1.550 (1.196)	-0.0119 (0.431)	-0.525 (0.380)	-0.433 (0.400)
judge_of_color †	0.154 (0.206)	0.211 (0.491)	-1.219 (1.362)	0.309 (0.598)	-0.215 (0.397)	-0.463 (0.524)
panel_republicans_fraction	0.0969 (0.245)	0.505 (0.619)	-1.528 (1.946)	-0.0612 (0.731)	-0.943** (0.478)	1.316** (0.635)
procedure_score	-0.147*** (0.0488)	-0.0749 (0.421)	-1.123* (0.602)	0.00752 (0.0909)	0.0147 (0.0622)	-0.247* (0.134)
subset_score_ave	0.0965 (0.109)	0.0807 (0.189)	1.106 (0.987)	0.533** (0.235)	0.778*** (0.150)	-1.432*** (0.414)
sct_case_score_ave	0.806 (0.573)	2.471*** (0.734)	9.511*** (3.468)	2.099 (1.733)	-0.936* (0.495)	6.418** (2.524)
circuit_affirmance_score	1.254*** (0.348)	-0.812 (3.548)	-21.14 (13.22)	0.917 (0.841)	2.355*** (0.516)	2.595*** (0.832)
case_criminal	-1.592 (1.071)	-15.41*** (3.139)	–	–	-2.253** (1.098)	–
lawchallenged_level	0.0968 (0.155)	-2.108*** (0.733)	-4.994* (2.798)	-16.30*** (1.440)	0.340 (0.277)	-0.294 (0.220)
lawchallenged_source	-0.0200 (0.167)	0.0329 (0.389)	5.847*** (1.461)	-1.182 (0.997)	0.0550 (0.176)	0.0610 (0.245)
claimant_plaintiff	0.722** (0.337)	-10.96*** (1.001)	–	–	-0.529 (1.103)	0.0171 (0.985)
claimant_prose	-0.963 (0.800)	–	–	–	-0.772 (0.744)	-0.910 (1.112)
claimant_individual	0.178 (0.223)	–	–	0.0472 (0.694)	0.372 (0.552)	-1.952*** (0.639)
claimant_business_small	-0.0170 (0.213)	3.218*** (1.046)	6.916*** (2.675)	-1.080 (0.707)	-0.570 (0.912)	0.853 (0.869)
claimant_business_big	0.559* (0.298)	–	–	–	–	–
claimant_interest group	0.332 (0.266)	-0.541 (1.008)	0.0186 (2.208)	-1.196 (0.753)	0.0558 (0.214)	0.383 (0.584)
claimant_other	0.382 (0.714)	–	–	–	-1.079 (1.036)	-0.685 (0.609)
Constant	-3.345*** (1.048)	16.46*** (3.843)	14.81 (12.37)	35.09*** (4.799)	-4.877** (2.099)	2.953 (2.352)

Independent Variables	Commercial Speech Model 3	Gun Rights Model 3	Gun Rights—Civil Model 3	Abortion Rights Model 3	Establishment Clause Model 3	Anti-Affirmative Action Model 3
Circuit fixed effects	✓	✓	✓	✓	✓	✓
Errors clustered at judge-level	✓	✓	✓	✓	✓	✓
Observations	745	407	104	246	478	307
Pseudo R^2	0.104♦	0.277	0.511	–	0.298♦	0.326♦
Chi-squared	107	1180	46.86	–	144.7	102.4

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Robust standard errors are in parentheses.

"–" indicates dropped variables.

"♦" indicates the highest pseudo R^2 value among the three models within a case set or case subset.

† In these models, judge race is operationalized as a dichotomous variable, either a person of color (1) or white (0), relying on coding by the Federal Judicial Center.

Table B.4 (Binomial Logit Estimates): Kitchen-Sink Models—Three-Judge Panels Only—Party of the Appointing President

	Commercial Speech	Gun Rights	Gun Rights—Civil	Abortion Rights	Establishment Clause	Anti-Affirmative Action
Independent Variables	Model 1	Model 1	Model 1	Model 1	Model 1	Model 1
judge_party	-0.0565 (0.185)	0.567 (0.459)	3.204 (2.645)	-1.855*** (0.462)	-1.730*** (0.341)	2.036*** (0.455)
judge_age	-0.00453 (0.0152)	-0.0606 (0.0415)	-0.332*** (0.104)	0.0157 (0.0363)	-0.00522 (0.0250)	0.0132 (0.0354)
judge_tenure	-0.00715 (0.0165)	0.0415 (0.0418)	0.337*** (0.109)	-0.0413 (0.0494)	-0.00905 (0.0290)	-0.0679* (0.0379)
judge_gender	-0.309 (0.266)	-0.252 (0.492)	2.588* (1.465)	0.206 (0.491)	-0.754* (0.425)	-0.360 (0.505)
judge_of_color †	0.0174 (0.228)	0.123 (0.511)	-3.275 (2.205)	0.684 (0.796)	0.236 (0.480)	-0.563 (0.538)
panel_republicans_fraction	0.227 (0.249)	0.670 (0.638)	5.114 (5.210)	-0.0141 (0.706)	-0.900** (0.424)	1.704** (0.663)
procedure_score	-0.133*** (0.0491)	0.109 (0.346)	-0.0696 (0.909)	-0.00921 (0.123)	0.117* (0.0695)	-0.273* (0.146)
subset_score_ave	0.224* (0.116)	0.175 (0.193)	1.244* (0.683)	0.636*** (0.236)	0.750*** (0.139)	-1.507*** (0.512)
sct_case_score_ave	1.101* (0.597)	3.222*** (0.773)	9.410** (4.181)	2.487 (2.244)	-1.276** (0.566)	1.261 (3.523)
circuit_affirmance_score	0.981*** (0.359)	2.110 (2.111)	85.71* (49.31)	0.897 (0.847)	2.459*** (0.518)	3.083*** (0.959)
case_criminal	-1.333 (1.022)	-14.16*** (2.427)	–	–	-2.546** (1.103)	–
lawchallenged_level	-0.170 (0.161)	-2.071*** (0.732)	-4.049* (2.403)	-15.99*** (1.710)	0.419 (0.260)	-0.273 (0.285)
lawchallenged_source	-0.0472 (0.181)	-0.275 (0.371)	5.577** (2.715)	-1.174 (1.025)	-0.0203 (0.161)	-0.0258 (0.268)
claimant_plaintiff	1.012*** (0.351)	-10.99*** (1.066)	–	–	-1.132 (1.060)	-0.173 (1.097)
claimant_prose	-0.876 (0.764)	–	–	–	-0.463 (0.794)	-0.534 (1.211)
claimant_individual	0.184 (0.236)	–	–	-0.158 (0.671)	0.253 (0.625)	-1.685** (0.712)
claimant_business_small	0.412* (0.234)	4.485*** (1.282)	23.82** (11.31)	-1.475** (0.659)	-0.0578 (0.864)	1.150 (0.983)
claimant_business_big	0.890*** (0.297)	–	–	–	–	–
claimant_interest group	0.0315 (0.283)	-0.534 (0.937)	0.482 (1.899)	-1.145 (0.716)	0.00433 (0.243)	1.622** (0.818)
claimant_other	-0.0611 (0.846)	–	–	–	-1.345 (1.061)	-0.577 (0.729)
Constant	-2.834** (1.192)	16.06*** (3.094)	-14.73 (16.34)	36.06*** (5.523)	-1.453 (2.452)	0.891 (2.815)

Independent Variables	Commercial Speech Model 1	Gun Rights Model 1	Gun Rights—Civil Model 1	Abortion Rights Model 1	Establishment Clause Model 1	Anti-Affirmative Action Model 1
Circuit fixed effects	✓	✓	✓	✓	✓	✓
Errors clustered at judge-level	✓	✓	✓	✓	✓	✓
Observations	681	385	93	195	366	234
Pseudo R^2	0.126	0.337♦	0.637♦	0.280	0.301	0.346♦
Chi-squared	134.2	1324	77.27	332.3	127.8	97.84

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Robust standard errors are in parentheses.

"–" indicates dropped variables.

"♦" indicates the highest (or tied for the highest) pseudo R^2 value among the three models within a case set or case subset.

† In these models, judge race is operationalized as a dichotomous variable, either a person of color (1) or white (0), relying on coding by the Federal Judicial Center.

3. Commercial Speech Subsets

Given the elusiveness of measures that predict judge votes in commercial speech cases as a whole, one way forward is to examine smaller subsets of litigation. We made the effort in three subfields with theoretical or evidentiary grounds for special attention, understanding that further partitioning can be done. In fact, one message from our work here is that the selection of litigation domains can influence the resulting picture of judicial behavior.

a. Post-2000 Cases

The commercial speech case set has the longest timespan in our study, and there is reason to think that the character of free speech litigation changed during this period. Intriguingly, the regression results do change somewhat if we analyze cases decided after the supposed "First Amendment era of good feelings."[185] Results are reported in Table C.1.

In post-2000 commercial speech cases, our judge ideology variables are still not quite statistically significant. But, among other differences, the Supreme Court case score variable is statistically significant ($p < 0.05$) in two of three models in the post-2000 cases and, as predicted, points in a positive direction. Circuit court judges might have become more attentive to the Supreme Court's recent messages about commercial speech as the field became more divisive. In contrast, the circuit affirmance rate loses significance in the post-2000 cases, which might signify that commercial speech appeals became less like garden variety appeals.

Most notable in the post-2000 results is the "big business" coefficient. It is now statistically significant ($p < 0.01$) in all three kitchen-sink models. These commercial speech claimants appear to have gained ground in recent years—perhaps because large firms have become better resourced and savvy litigators, or more sympathetic and reputable parties in the eyes of many judges, or targets of especially assertive and novel regulatory efforts. Unfortunately, our simple big business variable cannot test competing theories for why, say, the R.J. Reynolds Tobacco Company might perform better than, say, the Poughkeepsie Supermarket Corporation.[186] Furthermore, individual claimants also seem to have gained ground in the post-2000 case set. In addition, as displayed in Table B.4, the big business variable is positive and

[185] *See supra* text accompanying note 57 (quoting Burt Neuborne).

[186] *Compare* Poughkeepsie Supermarket Corp. v. Dutchess Cty., 648 F. App'x 156, 158 (2d Cir. 2016) (summary order) (upholding a requirement that individual items sold at retail have price stickers), *with* R.J. Reynolds Tobacco Co. v. FDA, 696 F.3d 1205, 1208, 1221–22 (D.C. Cir. 2012) (invalidating graphic warnings for cigarette packages), *overruled by* Am. Meat Inst. v. U.S. Dep't of Agric., 760 F.3d 18, 22–23 (D.C. Cir. 2014) (en banc) (rejecting an attempt to confine the *Zauderer* test to anti-deception programs).

statistically significant ($p < 0.01$) in the full commercial speech case set when restricted to three-judge panels only. Perhaps big business success is not, or not only, a function of time.[187]

Moreover and to repeat, our big business variable was subjectively coded. Better but less convenient measures of "bigness" might be obtained for many companies in our case set for the relevant time frame. One might count the company's number of employees, market capitalization, or name recognition from crowdsourcing services like Amazon's MTurk.[188] The best measures will depend on the hypotheses under investigation, which should follow careful consideration of plausible reasons why judges might treat larger or more recognizable firms differently from other litigants. Finally, as with the models for the full commercial speech case set, the post-2000 models obviously do not explain all of the variation in judge voting behavior. The pseudo R^2 numbers are larger but remain below 0.20. The post-2000 results are provocative, though, and further investigation seems warranted.

[187] Another possibility is that the Sunstein group's commercial speech data set, which we used to identify judge votes before February 18, 2004, implicitly applied a different standard from ours for including cases and that their standard was somehow related to the prospects of big business.

[188] *Cf.* Terence Dunworth & Joel Rogers, *Corporations in Court: Big Business Litigation in U.S. Federal Courts, 1971–1991*, 21 LAW & SOC. INQUIRY 497, 500 (1996) (relying on the so-called *Fortune 500*).

Table C.1 (Binomial Logit Estimates): Commercial Speech Subsets—Post-2000 Cases Only

	Commercial Speech	Commercial Speech	Commercial Speech
Independent Variables	Model 1	Model 2	Model 3
judge_party	-0.320 (0.233)	–	–
judge_JCS	–	-0.491 (0.332)	–
judge_DIME_imputed	–	–	-0.0490 (0.160)
judge_age	-0.0175 (0.0173)	-0.0188 (0.0175)	-0.0158 (0.0178)
judge_tenure	0.0177 (0.0205)	0.0194 (0.0208)	0.0164 (0.0212)
judge_gender	0.142 (0.240)	0.155 (0.242)	0.174 (0.244)
judge_of_color †	-0.0363 (0.240)	-0.0485 (0.238)	0.0440 (0.243)
panel_republicans_fraction	-0.271 (0.386)	-0.300 (0.387)	-0.215 (0.385)
procedure_score	-0.184*** (0.0671)	-0.181*** (0.0670)	-0.186*** (0.0666)
subset_score_ave	-0.257* (0.153)	-0.256* (0.152)	-0.245 (0.153)
sct_case_score_ave	2.061* (1.055)	2.103** (1.051)	2.141** (1.047)
circuit_affirmance_score	0.719 (0.556)	0.701 (0.555)	0.664 (0.555)
case_criminal	-0.691 (1.390)	-0.700 (1.384)	-0.808 (1.384)
lawchallenged_level	-0.0360 (0.246)	-0.0340 (0.245)	-0.0413 (0.244)
lawchallenged_source	-0.114 (0.238)	-0.111 (0.237)	-0.0923 (0.236)
claimant_plaintiff	1.418*** (0.481)	1.417*** (0.480)	1.435*** (0.472)
claimant_prose	-0.582 (1.160)	-0.591 (1.145)	-0.527 (1.144)
claimant_individual	0.932*** (0.358)	0.915** (0.358)	0.898** (0.354)
claimant_business_small	0.514 (0.331)	0.503 (0.328)	0.510 (0.329)
claimant_business_big	2.347*** (0.511)	2.342*** (0.510)	2.279*** (0.503)
claimant_interestgroup	1.064** (0.453)	1.070** (0.451)	1.068** (0.451)
claimant_other	–	–	–
Constant	-1.807 (1.385)	-1.901 (1.376)	-2.173 (1.350)

Independent Variables	Commercial Speech Model 1	Commercial Speech Model 2	Commercial Speech Model 3
Circuit fixed effects	✓	✓	✓
Errors clustered at judge-level	✓	✓	✓
Observations	484	482	483
Pseudo R^2	0.173♦	0.173♦	0.171
Chi-squared	115	117.6	119

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Robust standard errors are in parentheses.

"–" indicates dropped variables.

"♦" indicates the highest pseudo R^2 value among the three models within a case set or case subset.

† In these models, judge race is operationalized as a dichotomous variable, either a person of color (1) or white (0), relying on coding by the Federal Judicial Center.

b. Disclosure Cases

The D.C. Circuit's disagreements in disclosure cases helped make an otherwise sleepy constitutional field worth examining more closely.[189] Disputes over graphic warnings for cigarette packages and country-of-origin food labeling prompted dissents and en banc rehearings. Regardless of the Supreme Court's permissive attitude thirty years ago in *Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio*,[190] perhaps disclosure cases have become not only more difficult but also ideologically riven in a recognizable way.

We do find indications, albeit somewhat nuanced, that commercial speech cases involving disclosure trigger familiar ideological divisions among judges. Because the number of observations falls fast when we isolate disclosure cases, we revert to the simpler bare-bones specifications to reduce the number of variables on the right-hand side of the regression equation.[191] We then take advantage of our judge-vote coding which cuts between support for a constitutional claim in whole, support in part, and outright opposition. This allows us to detect moderate influences on judicial voting behavior, in the sense of limited changes in receptiveness to particular claims. As a result, we are no longer modeling judges' voting decisions as a dichotomous choice between rejecting a claim or voting for at least part of it, but as choice among three possible options: (1) vote to reject the claim(s) outright, (2) vote for the claim(s) in part, or (3) vote for the claim(s) in whole.

To explore the factors that may influence this kind of decision, we present estimates from multinomial logistic regressions in Table C.2. To simplify the presentation of these results, we present only the model where JCS scores were used for judge ideology. We can see in Table C.2 that ideology is a statistically significant predictor of judge voting behavior in these commercial speech subsets. Because, however, interpreting the signs and magnitudes of multinomial logit estimates is not always intuitive, we use these results to simulate and graph 1,000 mock judge-decisions for each commercial speech subset. These simulations are presented in Figure 3.0 and help us visualize patterns in the effects of ideology on judge voting behavior.

Each dot in Figure 3.0 represents the probability that a judge voted to reject the claim, voted to support the claim in part, or voted to support the claim in whole. Each dot therefore has three probabilities associated with it. A dot close to any of the three vertices signifies that the judge had a high probability of voting for that particular option over the other two. A dot near the center of the triangle signifies that the judge had an equal or near-equal probability of voting for any of the three options.

---

[189] *See* sources cited *supra* note 81 (collecting cases and divisions).

[190] *See* 471 U.S. 626, 651 (1985) ("[A]ppellant's constitutionally protected interest in *not* providing any particular factual information in his advertising is minimal.").

[191] We also omit circuit fixed effects to minimize the number of variables in our models, although we continue to cluster errors at the judge level.

Finally, a dot close to the line separating two specific vertices signifies that the judge favored those two options equally or nearly equally over the third.

The probabilities used to graph each of the dots were calculated by holding all control variables at their means and setting the judge JCS ideology variable at one of two points. First, in the triangles on the left side (Figure 3.0a and Figure 3.0c) the JCS variable is fixed at -0.2685, which marks the twenty-fifth percentile of values on the JCS variable. Judges with this JCS score can be thought of as left-leaning judges. Second, in the triangles on the right side of the page (Figure 3.0b and 3.0d), the JCS variable is fixed at 0.3705, which marks the seventy-fifth percentile of values on the JCS variable. Judges with this JCS score can be thought of as right-leaning judges.

We gain insight into how ideology affects judge voting behavior in disclosure cases by comparing dot patterns in the triangles on the left with the triangles on the right. Figure 3.0a shows, for instance, that left-leaning judges are more likely to vote to reject claims, with some chance of support in part. Left-leaning judges are furthermore unlikely to vote to support claims in whole. Figure 3.0b, on the other hand, indicates that right-leaning judges tend to straddle outright rejection and full support of claims.

Table C.2 provides numerical comparisons for the disclosure cases. If we look at votes for claims in whole compared to rejecting claims outright when disclosure is at issue in the case, we can see important differences in voting probabilities between left-leaning and right-leaning appointees. Commercial speech cases involving disclosure regulations seem to push left-wing judges away from right-wing judges when measured by the likelihood of outright opposing or outright supporting claims, though not with respect to outright opposing or supporting claims in part.[192] If instead we compare support for claims in part to support for claims in full, higher JCS scores are again significantly correlated with a higher likelihood of supporting claims in full. In other words, left-wing judges seem more attracted to partial support of commercial speech claims involving disclosure compared to full support, while right-wing judges seem to move in the opposite direction.

c. Right-Wing Advertising

Of all the surface features of a case that might energize disagreement along typical ideological lines, the content of advertisements is among the most straightforward theoretically. Often, it is true, the content of commercial advertising at stake in a given case is not clear; restrictions on billboards do not necessarily suggest the mix of advertising content that will be affected. But sometimes the complaining advertiser's content is plain for every judge to see and plainly targeted by the government

[192] In the full commercial speech case set, we can see only a small difference, on the order of 6%, between Democratic and Republican appointees in their willingness to support claims in part.

regulation at issue. Perhaps the content of these advertisements will influence judgments on constitutional claims, even if constitutional doctrine indicates otherwise.

Using the same modeling approach that we applied to disclosure cases, a somewhat different pattern emerges in the right-wing advertising cases. Figure 3.0c shows our simulated left-leaning judge vote probabilities dispersing across the three options with a pull toward support for claims only in part. Figure 3.0d shows, on the other hand, our simulated right-leaning judge vote probabilities once again tending to straddle outright rejection and outright support of claims. In this subset, as Table C.2 shows, higher JCS scores are significantly and *negatively* correlated with support for a commercial speech claim in part compared to rejecting the claim outright. However, higher JCS scores are significantly and *positively* correlated with support for commercial speech claims in full compared to support only in part. So when the advertising content seems right-wing, right-wing judges might be especially attracted to either supporting the free-speech challenge in full or not at all, in contrast with left-wing judges who might be amenable to support only in part.

Interestingly, for these right-wing advertisements, JCS scores are not significantly correlated with the choice between outright rejecting the commercial speech claim and supporting the claim in full. Confining the investigation to this binary choice does not suggest ordinary ideological divisions on the bench, while allowing for more subtle influences on voting behavior does indicate some such divisions.[193]

Finally, resorting to summary statistics for a moment, the raw numbers suggest that Democratic appointees are moving more than Republican appointees when advertising content shifts from left-wing to right-wing. Republican appointees fully support commercial speech claims in both content categories at about the same rate, although the raw numbers do indicate a somewhat greater chance of supporting commercial speech claims in part when the advertising content is right-wing. In contrast, the raw numbers show that Democratic appointees' full support for commercial speech claims drop about twenty percentage points when advertising content is coded right-wing compared to left-wing, and yet their support for claims *in part* surges *upward* over thirty percentage points. If we refused to separate votes in full from votes in part, it would seem that Democratic appointees were *more* likely to support right-wing advertising (at least in part) than Republican appointees.[194]

---

[193] No similarly obvious pattern of subtly changing voting behavior in the *left*-wing advertising cases was apparent from the raw data, although Democratic and Republican appointees might be behaving differently in that subset as well. In 111 observations in which the advertising content was coded as left-wing, Democratic appointees were 12% more likely than Republican appointees to support a commercial speech claim in full or in part; but Democratic appointees were somewhat more likely to vote for a claim in whole *and* to vote for a claim in part. We have not tested these differences for statistical significance, however.

[194] Sticking with raw summary data, Democratic appointees do seem more willing to support left-wing commercial advertising than their Republican-appointee counterparts—and the gap between Democratic and Republican appointees is larger in the left-wing (12%) than in the right-wing advertising subset (8%).

Unfortunately, with a small number of observations, running complex statistical models often is not possible. But for what it is worth, in the five full case sets tested above, the statistical significance or lack thereof never changed for any of our three judicial ideology variables when we shifted from bare-bones models to kitchen-sink models.[195] It is also true that the disclosure and advertising content variables are crude. Cases were flagged as involving disclosure even when other kinds of commercial speech claims were adjudicated in the same case. And, as made clear above, the ideological valence of advertising content was assigned impressionistically. But the coding is meant to be transparent and readers are encouraged to evaluate the assignments critically. Imprecision or other error in these codes, moreover, would tend to yield an underestimation of the underlying influences.

[195] *Compare supra* Tables A.1–A.3, *with supra* Tables B.1–B.3.

Table C.2 (Multinomial Logit Estimates): Commercial Speech Subsets—Disclosure and Right-Wing Advertising Content

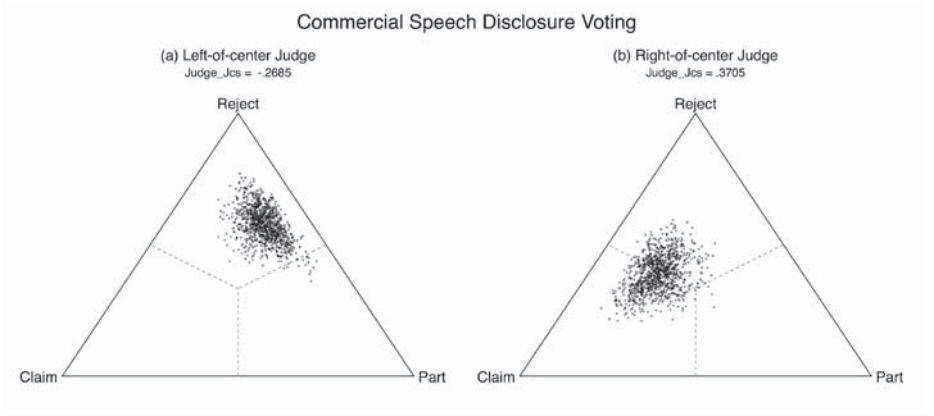
	Disclosure Cases			*Right-Wing Advertising Cases*		
Independent Variables	reject claim *v.* vote for *part*	reject claim *v.* vote for claim	vote for *part* *v.* vote for claim	reject claim *v.* vote for *part*	reject claim *v.* vote for claim	vote for *part* *v.* vote for claim
judge_JCS	0.0619833 (0.6998093)	2.280419*** (0.7551817)	2.218435*** (0.8119254)	-1.766271** (0.8824904)	0.4140778 (0.753547)	2.180349*** (0.9093465)
judge_age	0.032446 (0.0463728)	0.0510168 (0.041507)	0.0185708 (0.0543189)	-0.0035499 (0.0500726)	-0.0444559 (0.0408426)	-0.0409059 (0.0493196)
judge_tenure	-0.0562696 (0.0492489)	-0.0280177 (0.0434961)	0.0282518 (0.0584968)	-0.0323078 (0.0573179)	-0.0074885 (0.0460093)	0.0248193 (0.05313)
judge_gender	0.5025137 (0.524145)	-0.4855718 (0.4788975)	-0.9880855 (0.6472993)	0.4812465 (0.6779163)	-0.1836083 (0.5197124)	-0.6648548 (0.7127022)
judge_of_color †	-0.0649948 (0.5793305)	0.6374028 (0.6084179)	0.7023976 (0.7155535)	-0.4084274 (0.812014)	-1.094317 (0.6016539)	-0.6858896 (0.8598522)
Constant	-2.131927 (2.454385)	-3.732307 (2.273982)	-1.60038 (2.896617)	0.307063 (2.835899)	3.125861 (2.3163)	2.818798 (2.830734)
Circuit fixed effects ††		–			–	
Errors clustered at judge-level		✓			✓	
Observations		150			97	
Pseudo R^2		0.0758			0.083	
Chi-squared		15.56			17.66	

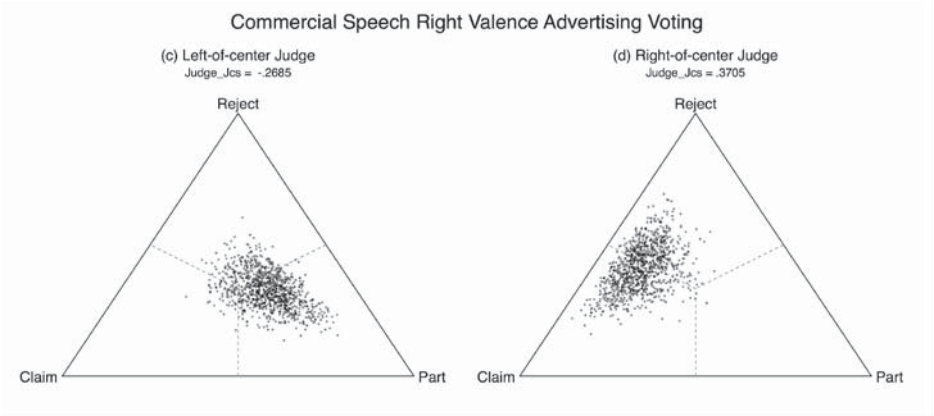
*** $p < 0.01$, ** $p < 0.05$. Robust standard errors are in parentheses.

† In these models, judge race is operationalized as a dichotomous variable, either a person of color (1) or white (0), relying on coding by the Federal Judicial Center.

†† In these models, circuit fixed effects were dropped to facilitate successful regression analysis with a relatively small number of observations.

Figure 3.0: Commercial Speech Subsets—Predicted Probabilities of a Vote to Reject the Claim, Vote for the Claim in Part, and Vote for the Claim in Whole—Judicial Common Space Scores





IV. IMPLICATIONS AND RESPONSES

A. Ideology in Domains and Degrees

We have identified two subsets of commercial speech cases, involving mandatory disclosure and right-wing advertising content, in which our judicial ideology proxies were statistically significant correlates with voting behavior. Under current doctrine, disclosure mandates should be easier for regulators to defend than other restrictions on advertiser choices, all else equal. However vague the disclosure doctrine may be, it certainly does not indicate that judges with different ideological perspectives should systematically vote differently. If our ideology proxies were measuring ideology in the loose jurisprudential sense of judicial philosophy,[196] we would have less concern. But our ideology proxies are designed to track policy disagreements outside the judiciary. Even more difficult to defend would be judge votes that not only depend on the content of the advertising—after all, checking for deceptive advertising requires judges to examine advertising content—but on how different judges with different ideological perspectives react to advertising content with a given ideological valence. Again, the operational conception of ideology here is a one-dimensional policy disagreement in ordinary politics.

Two other considerations may moderate the concerns, however. First, the apparent patterns of ordinary ideological division show up in only part of the commercial speech docket in the federal appellate courts. We have a total of 759 judge votes in the full commercial speech case set, as reported in Table 1.0. Of those votes, 151 involve a disclosure issue (20%), ninety-eight involve advertising coded as right-wing (13%)—and forty-seven of those votes (6%) overlap. Roughly speaking, then, this area of potential concern reaches about one quarter of the commercial speech docket in the U.S. Courts of Appeals. Furthermore, recall that part of the movement among judges is between full and partial support for constitutional claims. To be sure, we have not come close to investigating every plausible subset within the commercial speech domain. Perhaps "commercial speech" is a poorly conceptualized segment of the judicial docket, anyway. But relying on what we can see, based on the empirical strategies that we have chosen, a significant but not overwhelmingly large fraction of commercial speech litigation is dividing along conventional ideological lines.

Second, from a system-wide ex-ante perspective, the situation might be better defended.[197] Our court systems will always include judges with a mix of views, knowledge, and skills. Many of those differences are not only unavoidable but valuable, if we think of courts as groups of decision-makers working on some difficult problems without totally clear solutions. If these judge mixtures are largely understood

---

[196] *See supra* Section I.A.

[197] *See generally* Samaha, *supra* note 91, at 6–7 (offering possible justifications for random assignment of diverse sets of judges in ways that can be outcome determinative).

by prospective litigants who are well-advised by attorneys, people can predict and plan. This system-wide perspective might not be much comfort for the litigant, whether regulator or advertiser, who loses before one panel of judges and who is convinced that she would have prevailed before a different panel, or if the relevant advertising content had a different ideological valence. Looking at judicial systems ex ante and system wide, however, puts our results in an informed perspective.

B. Mindfulness and Rules

One potential response to our commercial speech results is for judges to recognize these areas of apparent ideological influence and rethink how they process these cases. Because the disclosure and advertising-content domains have not been studied in this way until now, the dividing lines might not have been apparent to these decision-makers. Being mindful of a cognitive pattern facilitates conscious efforts at self-correction.

Then again, perhaps the specially charged character of these case subsets (and others) has been readily apparent to judges and practitioners all along. Moreover, consciously confronting influential components of decision-making is not always a sure-fire strategy for minimizing those influences. It is even possible for judges to begin overthinking the possibility of unjustifiable forms of ideological influence, and then overreact in opposite directions—suddenly becoming too supportive of or resistant to disclosure challenges, or too supportive of advertising content with which the judge might otherwise be (un)comfortable. Without excessive defeatism on the prospects for individualized efforts at conscientious judging, we can flag the difficulties.

Another potential response is rule-oriented. To the extent that ideological influences are troubling, judges might shift commercial speech doctrine toward clearer rules and away from flexible standards. This doctrinal reform, if implemented effectively at all levels of the judiciary, could reduce the discretion of individual decision-makers and consequently the influence of their ideologies on case outcomes.

Yet standards certainly are not always ideology instigating, at least in a measurable way. Both *Central Hudson* and *Zauderer* offered doctrinal standards,[198] and yet it is difficult to identify ideological influence under the former.[199] Furthermore, judges would have to decide which rules to adopt, and therefore which sacrifices must be made under the crude analysis required by this sort of doctrine. In addition, a rule-oriented strategy offers only some hope for stopping ideology from migrating to other corners of the commercial speech-related docket. Recall the series of contested boundary questions listed above: what counts as commercial speech,[200] what counts

---

[198] *See* Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626, 651 (1985); Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n, 447 U.S. 557, 563–66 (1980).

[199] *See supra* Sections III.B.1–B.2.

[200] *See supra* notes 76–81 and accompanying text.

as misleading,[201] what counts as regulation of commercial conduct,[202] and what counts as flat-out regulation as opposed to permissibly conditional subsidies.[203] Theoretically judges may produce rules for each of these controversies, but surely there is room to disagree that the achievement of rule-saturated commercial speech doctrine is both realistic and desirable in any sense.

C. The Exit Option

Another possible response is for judges to embrace defeat and exit the field. Perhaps the forty-year experiment with constitutional-grade commercial-speech litigation should come to an end. Perhaps the judiciary's constitutional move into the territory of commercial advertising will become reversible in good time, as was the judiciary's earlier position that commercial advertising would receive no constitutional protection.[204] Some scholars and judges and others might become comfortable with withdrawal in the absence of convincing evidence that this brand of litigation has been net positive for society.

Indeed there are respectable arguments for judicial withdrawal, even if no ideological influence on case results can be demonstrated convincingly. One simple objection rests on restricting the value of free speech to narrow versions of self-definition and self-fulfillment,[205] but that approach might not withstand people's lived experiences in a supposedly commercial sphere that is not so separate from other parts of their lives. The live objections include the sense that much advertising is not really informational,[206] and perhaps more troubling doubts that much of the audience is adequately in control of these interactions.[207] The objections reach still

---

[201] *See supra* notes 81–83 and accompanying text.

[202] *See supra* notes 84–89 and accompanying text.

[203] *See supra* note 79 and accompanying text.

[204] Valentine v. Chrestensen, 316 U.S. 52, 54 (1942).

[205] *See* C. EDWIN BAKER, HUMAN LIBERTY AND FREEDOM OF SPEECH 196 & n.* (1989) (arguing that a well-conceived "liberty theory" of the First Amendment "requires a complete denial" of constitutional protection for profit motivated commercial speech).

[206] An early effort to describe the image-advertising phenomenon in the law literature is C.C. Laura Lin, *Corporate Image Advertising and the First Amendment*, 61 S. CAL. L. REV. 459, 461–67 (1988).

[207] *Cf.* Jack M. Balkin, *Cultural Democracy and the First Amendment*, 110 NW. U. L. REV. 1053, 1086 (2016) (explaining that, in the commercial speech domain, the government may "recognize that people are often dependent, vulnerable, and not equally able to fend for themselves"). Balkin does not argue for judicial exit but instead would limit judicial intervention such that, for instance, "[t]he emotional and cultural content of commercial advertising, powerful as it may be, is subject to government regulation only to the extent that it helps to mislead, obfuscates facts, or manipulates consumers into believing and acting on falsehoods and half-truths." *Id.* at 1088.

further, to complaints that judges have offered almost no originalist historical support for the doctrine, grounded in the world of 1791 or 1868, and that the judiciary's pro–advertisement intervention looks too much like *Lochner v. New York*.[208] Perhaps adequate responses can be formulated for all of that. Readers can make their own judgments.

The case for judicial review remains especially shallow, however, when we start thinking about the proper role for courts within the larger society. Some of the sharpest objections to commercial speech litigation concentrate on comparative institutional competence and institutional design, and commercial speech enthusiasts have done little work to blunt these objections. Institutional turns in legal scholarship seem to have passed them by. Within the intellectual space of institutional analysis, though, we are obliged to investigate the arguably special social dynamics associated with commercial advertising, along with the judiciary's special and limited role in the constitutional order. We have reason to think that many commercial advertisers capture the social value of their speech in ways that other speakers do not—and that many commercial advertisers are organized for success in politics in ways that other communicators might not be.[209]

If commercial advertising is not much like an informational public good, and if commercial advertisers already fare relatively well in politics, it becomes hard to justify special favors from the courts. And it becomes even harder to defend judicial review when such litigation essentially repeats policy disagreements that we already have elsewhere, now translated into the uncompromising terms of constitutional

---

[208] Lochner v. New York, 198 U.S. 45, 64 (1905) (invalidating a maximum hour law for bakers); *see* Sorrell v. IMS Health Inc., 564 U.S. 552, 602–03 (2011) (Breyer, J., dissenting) ("At worst, [the Court] reawakens *Lochner*'s pre–New Deal threat of substituting judicial for democratic decision-making where ordinary economic regulation is at issue."); Thomas H. Jackson & John Calvin Jeffries, Jr., *Commercial Speech: Economic Due Process and the First Amendment*, 65 VA. L. REV. 1, 18 (1979) (arguing "the absence of any principled distinction between commercial soliciting and other aspects of economic activity"); *see also* Cass R. Sunstein & Adrian Vermeule, *Libertarian Administrative Law*, 82 U. CHI. L. REV. 393, 423–27 (2015) (depicting recent judicial resistance to disclosure mandates as part of a larger libertarian project, and objecting to "a kind of constitutional war against a regulatory tool that is modest, promising, and characteristic of a wide range of congressional programs"). A modest version of this critique is that judges today are pressing too far beyond the constitutional value of commercial advertising in helping listeners make informed decisions. *See* Robert Post & Amanda Shanor, *Adam Smith's First Amendment*, 128 HARV. L. REV. F. 165, 169–71 (2015).

[209] *See* Daniel A. Farber, *Free Speech Without Romance: Public Choice and the First Amendment*, 105 HARV. L. REV. 554, 565 (1991) ("Commercial speech also closely resembles a private good. Most of the benefit of product advertising is captured by the producer itself in the form of increased sales."). Links between commercial advertising and the development of culture and identity, see *supra* note 41 and accompanying text, might be grounds for updating the economic analysis of commercial speech doctrine.

entitlement. Learning that part of the commercial speech docket is subject to conventional ideological disagreement is one more reason for people to reconsider the exit option.[210]

CONCLUSION

A broad review of the commercial speech field shows no significant sign of garden-variety ideological rifts over case results, even though judicial philosophy must play a role in upstream decisions about doctrinal architecture. Hence commercial speech cases writ large look nothing like abortion, affirmative action, or establishment clause cases on this measure. This headline is not changed either by different proxies for ideology or by the addition of a battery of independent variables, including variables designed to reflect applicable procedural and substantive law.

Familiar ideological rifts do seem to emerge, however, once we concentrate our attention on disclosure cases and advertisements with an apparent right-wing valence. These divisions are not outcome-determinative by themselves; other considerations obviously matter to judges, perhaps including the size of the business interest affected. And the area covered by the ideologically divisive cases is a fraction of the entire commercial speech docket. But now we have greater insight into the domain and magnitude of ideological influence—upstream and downstream, loosely and tightly conceptualized—in this and several other fields of modern constitutional litigation. Enhancing the precision and theoretical grounding of empirical studies should make our understanding of judicial behavior more realistic, and our efforts at reform better targeted for the future.

---

[210] In fact, a rising frequency and popularity of commercial speech objections to disclosure and other requirements could be one cause of, and not a justification for, rising judicial enthusiasm for the claims. The influence may run through the judicial appointments process if not elsewhere, which probably would make judicial exit dependent on forces well beyond judges' capacity to reconsider constitutional doctrine.