Faculty Publications & Other Works

2009

Taking the Measure of Ideology: Empirically Measuring Supreme Court Cases

Matthew Sag
Loyola University Chicago, msag@luc.edu

ARTICLES

Taking the Measure of Ideology: Empirically Measuring Supreme Court Cases

TONJA JACOBI AND MATTHEW SAG*

TABLE OF CONTENTS

1

INTRODUCTION

Although the tools of empirical legal analysis have become increasingly sophisticated, much of this development has been asymmetrical. Empiricists have developed numerous ways of assessing the inputs of legal processes—especially in relation to judicial ideology—however, until very recently, there have been no comparably sophisticated measures of the outputs of legal processes—case outcomes. Without good measures of case outcomes—the relative placement of the substantive determination by the Court in each case—it is impossible to empirically answer questions such as whether the Supreme Court's jurisprudence in a particular area has become more conservative over time.

In a recent theoretical paper, Tonja Jacobi demonstrates how the same sophisticated measures of judicial ideology that scholars use as inputs in empirical legal studies can be utilized to calculate sophisticated measures of case outcomes.[1] Jacobi actually develops three different measures, each corresponding to a different theory of judicial decision-making. This Article extends Jacobi's earlier theoretical work by empirically testing the competing measures of case outcomes. We refer to these competing measures collectively as the "Jacobi measures," for lack of a better term. This empirical analysis enables us to directly assess the plausibility of the Jacobi measures and their underlying behavioral assumptions—a vital question for empiricists and non-empiricists alike.

Comparing cases, delving into their details, making fine-grained comparisons, and sifting for nuances of consistency and inconsistency is the heart of legal doctrinal analysis. Scholars establish the breadth and scope of rules and standards alike by distinguishing or reconciling competing understandings of individual cases. Imagine, then, if we had a valid and reliable mechanism of scoring case outcomes and comparing cases via a consistent, objective standard. Such scores would not replace doctrinal analysis, but they certainly would aid

---

1. Tonja Jacobi, *Competing Models of Judicial Coalition Formation and Case Outcome Determination*, 2 J. LEGAL ANALYSIS 411, 413 (2009) ("Currently, empirically-minded scholars have a simple measure of case outcomes and a sophisticated measure of judicial ideology available for their research. It is possible to combine these two elements to create a potentially more sophisticated measure of case outcomes.").

and complement the more detailed case-by-case analysis in which law scholars have traditionally engaged.[2]

In contrast to doctrinal analysis, empirical legal analysis typically reduces jurisprudential complexity, sometimes to simple binary outcomes, in order to aggregate and compare hundreds or thousands of cases in a methodologically rigorous way. Recent legal scholarship has been marked by increasing empiricism,[3] which has garnered attention from judges, legislators, and the press.[4] A central part of empirical judicial inquiries has been the legal realist and attitudinalist contribution that shows that in most areas of the law, judicial ideology is a significant factor in determining case outcomes.[5] Much of this analysis has been skillfully undertaken using fairly blunt instruments;[6] however, in recent years, the scholarship has been greatly facilitated by the development of increasingly sophisticated measures of judicial ideology.[7]

More dynamic and accurate measures of judicial ideology improve our understanding of the nature of judicial ideology itself and the capacity of judicial empiricism to provide more nuanced implications for doctrinal analysis.[8] For example, Martin and Quinn's judicial ideology scores have been used to examine whether Supreme Court Justices' ideologies change over time,[9] as well as to answer long-standing questions that have plagued doctrinalists and other scholars of the courts, such as whether there was a "switch in time that saved nine."[10]

Despite the varied and often powerful application of these measures of judicial ideology, one powerful use has until recently been largely ignored: the

---

2. *See infra* Part I.

3. *See* Lee Epstein & Gary King, *The Rules of Inference*, 69 U. CHI. L. REV. 1 (2002) (reviewing the increasing use of formal empiricism in legal analysis).

4. *See* Gregory C. Sisk & Michael Heise, *Judges and Ideology: Public and Academic Debates About Statistical Measures*, 99 NW. U. L. REV. 743, 744–45 (2005) (describing increased public notice of empirical research on judicial decision-making).

5. *See, e.g.,* OLIVER WENDELL HOLMES, JR., THE COMMON LAW 1 (Little, Brown, & Co., Boston 1881) (arguing that "moral and political theories, intuitions of public policy," and judicial prejudices shape case outcomes); JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED 312–36 (2002) (applying the attitudinal model to Supreme Court search and seizure cases, respectively).

6. *See infra* notes 42–45 and accompanying text.

7. *See* Andrew D. Martin & Kevin M. Quinn, *Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953–1999*, 10 POL. ANALYSIS 134 (2002), *available at* http://www.mqscores.wustl.edu/measures.php; *see also* Michael Bailey & Kelly H. Chang, *Comparing Presidents, Senators, and Justices: Interinstitutional Preference Estimation*, 17 J.L. ECON. & ORG. 477, 477 (2001). For a more detailed explanation of the Martin-Quinn scores, see *infra* Part II.

8. *See* Bailey & Chang, *supra* note 7; Martin & Quinn, *supra* note 7.

9. They do. *See* Epstein et al., *Ideological Drift Among Supreme Court Justices: Who, When, and How Important?*, 101 NW. U. L. REV. 1483 (2007) (using the Martin-Quinn scores to determine that judicial ideologies shift over time).

10. There was, but not at the time generally assumed. *See* Kevin Quinn & Daniel Ho, *Did a Switch in Time Save Nine?*, 2 J. LEGAL ANALYSIS (forthcoming 2009) (manuscript at 33), *available at* http://dho.stanford.edu/research/switch.html (using statistical analysis to show that there was a "shift," rather than a "switch," and at a time different than commonly assumed).

prospect of translating scores of judicial ideology into measures of case out-
comes. In a forthcoming article, Jacobi does just that, translating the Martin-
Quinn scores of judicial ideology into three competing measures of case
outcomes.[11] The three measures correspond to three different models of judicial
decision-making. More specifically, these models of judicial decision-making
are built on contending assumptions about how judges on a multi-judge court
weigh achieving an outcome that most closely reflects their preferences (how-
ever those preferences are constituted: by law, politics, or any other concerns)
against the desire to achieve the largest possible majority coalition.[12] In brief,
the models are as follows:

· The "Ideological model" assumes that judges vote strictly according to the
content of a decision and that the only relevant consideration is how closely a
particular decision matches their own preference for the outcome or "ideal
point."[13] One of the implications of the Ideological model is that once a
decision has achieved a bare majority, no further negotiations or compromises
are likely. Case coalitions under the Ideological model are minimum winning
coalitions, with all case outcomes at the median of the Court.[14]

The "Collegial model" is in many ways the antithesis of the Ideological
model. Its basic assumption is that although judges care about case outcomes,
they will compromise a great deal to broaden a judicial coalition and persuade
dissenting judges to join the majority. The scope for compromise remains
limited under this model because a change made to lure one judge at one end of
the spectrum may prompt the departure of another at the opposite end. Thus
even under the Collegial model, not every case will be decided unanimously,
but the expected level of judicial agreement is higher than under the Ideological
model. Case coalitions under the Collegial model are maximum winning coali-
tions, with case outcomes reflecting the preferred position of the "last judge
in"—the most liberal Justice in a conservative majority and the most conserva-
tive Justice in a liberal majority.[15]

The "Strategic model" assumes that judges seek to balance their desire to
align individual case outcomes with their preferences and the competing interest
in maximizing the size of the potential coalition. Specifically, this model
assumes that a judge will act strategically to balance the outcome-coalition size
trade-off by using the credible threat of defection to bring a given decision
closer to her own ideal point. Such negotiations may be explicit, but given
prevailing judicial norms, they are more likely to be implicit. Case outcomes

---

11. Jacobi, *supra* note 1, at 434.
12. *See infra* notes 44–56 and accompanying text.
13. *See, e.g.*, Brian R. Sala & James F. Spriggs, II, *Designing Tests of the Supreme Court and the
Separation of Powers*, 57 POL. RES. Q. 197, 198–99 (2004) (modeling an attitudinalist view of judges
whereby a judge votes for an outcome that comes closest to his or her ideal outcome).
14. *See infra* section II.A.
15. *See infra* section II.A.

under the Strategic model reflect the average views of the majority coalition.[16]

In essence, the three models represent three different answers to the question of whether, and to what extent, judges will make trade-offs between outcome optimization and coalition building. If judges simply vote their preferences, the Ideological model should prevail. If judges compromise in order to maximize the size of the majority in order to lend greater credence to their rulings, the Collegial model should prevail. Alternatively, if judges act strategically by leveraging credible threats of defection in order to bring the majority opinion closer to their own ideal outcome, the Strategic model should prevail. As Jacobi demonstrates, these divergent assumptions regarding the trade-off between outcome optimization and coalition building are susceptible to formal mathematical modeling, and these models in turn can be operationalized as measures of case outcomes.[17]

This Article provides the first comparative test of Jacobi's measures of case outcomes. Jacobi shows that different fundamental assumptions about judicial behavior produce very different measures of case outcomes.[18] However, by itself, Jacobi's formal models do not actually tell us which of those assumptions are more realistic. Abstract theories of human behavior can only take us so far in making that assessment. This Article begins to illuminate the ultimate question of how judges behave by assessing these three competing case outcome measures against a dataset of over 8000 Supreme Court cases decided between 1953 and 2006 and against a much smaller set of just over 100 Supreme Court intellectual property (IP) cases decided over the same period. Through this empirical analysis, and by comparing the scores produced by Jacobi's competing measures to the substantive content of the Court's decisions, we take an important first step in empirically testing the plausibility of the different assumptions of judicial behavior that scholars have previously debated in more abstract terms.

The methodology we employ in this Article is both empirical and doctrinal. The large-n data of all Supreme Court cases allows us to make statistically robust assessments, comparing the three Jacobi measures to the traditional liberal-conservative case outcome variable in the canonical Spaeth's United States Supreme Court Judicial Database (the "Spaeth Database").[19] The small-n data of the Supreme Court's IP cases adds considerable depth to our analysis. Focusing on the Court's IP jurisprudence allows us to take advantage of an

---

16. *See infra* section II.A.

17. Jacobi, *supra* note 1, at 440–47.

18. *Id.* at 449–52.

19. The U.S. Supreme Court Judicial Database is a widely used database of Supreme Court opinions developed by Harold Spaeth. *See* Harold J. Spaeth, The Original U.S. Supreme Court Judicial Database (Feb. 24, 2009), *available at* http://www.cas.sc.edu/poli/juri/sctdata.htm [hereinafter Spaeth Database]; *see also* Harold J. Spaeth, The Original United States Supreme Court Judicial Database 1953–2007 Terms (2008), *available at* http://www.cas.sc.edu/poli/juri/allcourt_codebook.pdf [hereinafter Spaeth Codebook].

alternative measure of case outcomes that does not exist for other areas of the law, because the outcomes of Supreme Court IP cases can be reliably and validly measured in terms of whether the Court decides in favor of the IP claim at issue.[20] Furthermore, the Supreme Court's IP jurisprudence provides a discrete body of case law that is both large enough for some empirical analysis, but small enough for in-depth comparative doctrinal analysis. Accordingly, by applying the Jacobi measures to a specific and discrete legal context, we can assess the empirical scores against a doctrinal analysis of important cases.[21]

Together with Jacobi's earlier theoretical work, this Article marks a significant advance in the search for a rigorous method of developing case outcome scores for empirical legal analysis. Our empirical and doctrinal analysis indicates that the Strategic and Ideological measures are valid and reliable tools for measuring case outcomes. Our analysis also shows that the Strategic measure is a better measure of case outcomes than the Ideological measure, and both are superior to the Collegial measure. By identifying the best means of measuring case outcomes, this work will allow scholars to undertake empirical analysis that tracks effects of various phenomena on movements in court outcomes.

In addition to expanding the tool set for empirical legal analysis, this Article also advances our understanding of judicial behavior more broadly because the utility of the measures Jacobi provides is linked to the plausibility of their underlying behavioral assumptions. In essence, ascertaining which measure best captures case outcomes suggests what mode of judicial decision-making is most common in the Supreme Court. Intellectual property scholars may also find that the insights generated by our empirical project provide a useful supplement to the extensive body of purely doctrinal analysis that exists in IP literature.[22]

Parts I and II provide the essential theoretical background for our analysis. Part I extends this preliminary discussion of the development of empirical legal studies and the need for scores of case outcomes. Part II introduces the Jacobi measures and shows how each measure reflects a different school of thought on how judges make their determinations. It then introduces the Martin-Quinn scores of judicial ideology, which are incorporated into the case outcome scores.

Parts III and IV contain our empirical analysis of the Jacobi measures. Part III applies the scores to all Supreme Court cases, and separately to all Supreme Court IP cases, decided between the 1953 and 2006 terms. Part IV contains our statistical analysis. It provides three different modes of assessing how each of

---

20. Matthew Sag, Tonja Jacobi & Maxim Sytch, *Ideology and Exceptionalism in Intellectual Property: An Empirical Study*, 97 CAL. L. REV. 801 (2009). The advantages of using Pro-IP as an additional point of reference are discussed more fully *infra* Part III.

21. *See infra* Part V.

22. Even those scholars who conduct similar longitudinal studies of the Supreme Court's IP jurisprudence generally do so impressionistically and anecdotally. *See, e.g.*, Keith Aoki, *Balancing Act: Reflections on Justice O'Connor's Intellectual Property Jurisprudence*, 44 HOUS. L. REV. 965 (2007) (reviewing the IP jurisprudence of Justice O'Connor); Pamela Samuelson, *The Generativity of Sony v. Universal: The Intellectual Property Legacy of Justice Stevens*, 74 FORDHAM L. REV. 1831 (2006) (surveying the IP jurisprudence of Justice Stevens).

the scores fare. We compare each of the scores to the traditional dichotomous categorization of case outcomes as either liberal or conservative. In addition, in the context of the IP cases, we also compare the competing scores to the Pro-IP outcome-based categorization.

In Part V, we undertake a detailed doctrinal analysis of the Supreme Court's most influential IP cases since 1953 and assess which Jacobi measure best captures each case determination. This extensive doctrinal discussion can be considered an alternative, or a supplement, to our empirical analysis. The patterns that emerge from this somewhat subjective analysis are clear enough to permit some significant general conclusions. We conclude in Part VI with an assessment of the relative value of each of the Jacobi measures, having found the Strategic measure superior on all tests. We apply that measure to all Supreme Court IP cases and provide a discussion of the implications of our results for judicial scholarship.

I. THE NEED FOR CASE OUTCOME SCORES

As mentioned, both legal scholarship generally and judicial scholarship in particular have become increasingly influenced by empiricism.[23] This has produced intellectual advances not only in the now decades-old question of whether judicial behavior is ideologically driven,[24] but has also contributed to more fine-tuned understandings of how judicial ideology shapes case outcomes and judicial doctrine—for example, whether liberal Justices consistently favor free speech, or whether their preference for free speech is subverted when other substantive liberal goals, such as non-discrimination, are in conflict with free speech concerns.[25]

Nevertheless, the last four decades of empirical scholarship have proceeded without a sophisticated objective measure of case outcomes. Such a measure of case outcomes would allow scholars to answer questions such as: Are cases that mention federalism more conservative than those that do not? Has search and seizure jurisprudence become more liberal or more conservative with the switch from the Rehnquist Court to the Roberts Court? Are cases that rely on international law and customs more liberal than otherwise similar cases? Are concurrences that are relied on in subsequent cases typically moderate or extreme? The possibilities are wide-ranging and significant for legal analysis.

Scholars have attempted to develop subjective measures of case outcomes; for instance, McGuire and Vanberg undertook qualitative analysis of language

---

23. *See* Epstein & King, *supra* note 3.

24. *See, e.g.,* Jeffrey A. Segal, *Separation-of-Powers Games in the Positive Theory of Congress and Courts,* 91 AM. POL. SCI. REV. 28, 28–29 (1997) (reviewing the attitudinalist literature).

25. Lee Epstein & Jeffrey A. Segal, *Trumping the First Amendment?,* 21 WASH. U. J.L. & POL'Y 81, 89–91 (2006) (discussing liberal Justices' willingness to sacrifice free speech rights in order to protect other liberal goals).

that tends to show up in liberal versus conservative opinions.[26] However, such subjective assessments may not be reliable.[27] Due to this unreliability, scholars more commonly rely on objective, but highly simplified, means of categorizing or labeling cases. These categories are typically dichotomous—for example, a case is either pro-plaintiff or pro-defendant—and thus do not provide as meaning-ful a form of measurement as a continuous variable would. A continuous measure—one that permits infinite variation along a scale—would allow cases to be judged accurately by comparing the score with a substantive, comparative assessment of similar cases.

The primary form of categorization is fairly basic—particularly when com-pared to the sophisticated contemporary measures of judicial ideology discussed below. The standard means for categorizing case outcomes is to use the Spaeth Database coding, which categorizes cases as "liberal" or "conservative."[28] These labels are designated according to whether the case outcome favors a particular category of party before the Court. For example, if the successful party before the Court is a person convicted of a crime or is a pro-civil rights claimant, the outcome is categorized as liberal.[29] On the other hand, if the successful party is a large business prevailing over a small business, the outcome is categorized as conservative.[30]

Although the liberal-conservative dichotomous categorization is very simple, it can be quite useful as a *variable* for broadly differentiating case outcomes. However, it is entirely inadequate as a *measure* of case outcomes.[31] A measure of case outcomes can be used as a variable, but it can also provide a means of understanding cases in a field in reference to one another. In other words, unlike the traditional liberal-conservative dummy variable, a measure of case out-

---

26. Kevin McGuire & George Vanberg, Mapping the Policies of the U.S. Supreme Court: Data, Opinions, and Constitutional Law 2, 28 (Sept. 1–5, 2005) (unpublished manuscript), *available at* http://www.unc.edu/~kmcguire/papers/McGuire_and_Vanberg_2005_APSA_Paper.pdf.

27. Also, such subjectivity is not necessary: Jacobi's measures make use of objective information contained in the Spaeth Database, particularly the size and composition of the majority in every case. *See infra* Part II.

28. *See* Spaeth, Spaeth Codebook, *supra* note 19, at 53–54 (noting in "Variable 31: direction of decision" the use of liberal or conservative coding, where 1 is liberal and 0 is conservative).

29. *Id.* In addition, outcomes favoring children, indigents, American Indians, affirmative action, and reproductive freedom are also coded as liberal. *Id.* Pro-union decisions are coded as liberal except in the context of antitrust cases. *Id.* In cases pertaining to economic activity, liberal outcomes include pro-competition, anti-business, pro-indigent, pro-debtor, pro-bankrupt, pro-Indian, pro-environmental protection, pro-consumer, and pro-economic underdog (as well as pro-small business vis-à-vis large business). *Id.*

30. *Id.* Although much has been written criticizing the coding of the Spaeth Database, see, for example, Carolyn Shapiro, *Coding Complexity: Bringing Law to the Empirical Analysis of the Supreme Court*, 60 HASTINGS L.J. 477 (2009), inter-coder reliability checks found only three errors with the direction of decision variable used here. Spaeth, Spaeth Codebook, *supra* note 19, at 82 (reliability check on Variable 31: direction of decision).

31. By way of analogy, all you need to know to decide whether to bring an umbrella is whether it is going to rain. In contrast, to decide what clothes to wear you need to know more about the temperature than a single binary indication can convey.

comes can provide a scale on which cases vary, potentially infinitely so. The liberal-conservative categorization does not provide enough information for any differentiation between cases, other than as between two discrete poles, and was never intended as such a measure.

For example, comparing two recent Supreme Court copyright cases, *Eldred v. Ashcroft*[32] and *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*,[33] in terms of conservatism versus liberalism is entirely uninformative because both cases simply score a conservative 0 on a 0/1 binary measure.[34] Such variables are called "dummy" variables in statistics parlance with good reason. Similar problems arise for any dummy variable, including the Pro-IP variable we utilize in our IP statistical analysis. In *Diamond v. Chakrabarty*, for example, the Supreme Court significantly expanded the scope of patentable subject matter.[35] This clearly warrants a 1 in terms of the 0/1 Pro-IP variable. But so too does the more modest expansion of patentable subject matter ushered in by *Diamond v. Diehr* a year later, where the Court allowed a computer program with a specific application to be patented for the first time.[36] Dummy variables are extremely useful for classifying cases for the purposes of further analysis, but they cannot be used as case outcome measures because they cannot identify the *extent* to which a ruling favors the IP claimant. Most, if not all, empirical work involves some reductionism of real-world complexity, but the level of reductionism involved in classifying all cases as one of two outcome extremes renders such classifications unfit as measures of case outcomes.

What will a continuous measure allow scholars to analyze that a dichotomous score will not? If a scholar wants to assess the effect of any action or event to determine whether it lead to an overall movement of the Court in a particular area of law, a dichotomous score of case outcomes will not allow this but a continuous measure will. For instance, Baird and Jacobi wanted to test whether conservative dissenting justices can undermine a majority that emerges in one case by signaling that similar future cases should be argued on the basis of federal-state power, and by doing so move the Court in subsequent cases in a conservative direction (and, likewise, liberal federalism dissents could move the Court in a liberal direction).[37] Previously, such a hypothesis was impossible to test, but using one of the continuous Jacobi measures, Baird and Jacobi find exactly this effect.[38]

Our analysis involves three important elements that avoid the limitations of dichotomous variables. First, we employ Jacobi's case outcomes scores, which

---

32. Eldred v. Ashcroft, 537 U.S. 186 (2003).

33. Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913 (2005).

34. Spaeth, Spaeth Database, *supra* note 19.

35. Diamond v. Chakrabarty, 447 U.S. 303 (1980).

36. Diamond v. Diehr, 450 U.S. 175 (1981).

37. Vanessa Baird & Tonja Jacobi, *How the Dissent Becomes the Majority: Using Federalism To Transform Coalitions in the U.S. Supreme Court*, 59 DUKE L.J. (forthcoming 2009).

38. *Id.*

are continuous. Second, we use Martin-Quinn scores of judicial ideology, which, among their many other advantages, are also continuous and thus avoid similar problems arising in relation to dichotomous characterizations of judicial ideology. And third, to check the accuracy of the Jacobi scores, we use the Pro-IP case outcome variable described above that, rather than being based on the "upper-dog/under-dog" measure of party status inherent in the Spaeth liberal-conservative dichotomy, is based on the doctrinal determination of the Court in its IP cases: whether the Court finds in favor or against the intellectual property claim being advanced.[39]

These three elements are described in detail in the following Part. Before doing so, it is worth pausing to ask: Even if the Jacobi scores are a vast improvement on the simple liberal-conservative labeling of cases, why do we need case scores at all? Doctrinal analysis provides a detailed description of cases and does not require reductionism at all, so why compromise in the form of any score?

There are at least two answers to this question. The first, implicit in our discussions so far, is that large-n empirical analysis—the (usually statistical) analysis of trends and characteristics of a large number of cases in aggregate— offers insights into legal phenomena and judicial behavior that are either hard to see or impossible to prove systematically at a micro level. Because empirical analysis is only as good as the measures upon which it relies, developing better scores of case outcomes is an essential task in the ongoing pursuit of empirical legal enquiry. Put another way, we need viable measures in order to have *valid* analysis.

The second answer is that even when we are not undertaking large-n statistical analysis, when we are conducting doctrinal analysis, we are essentially comparing and contrasting cases or elements of cases. Every legal scholar, every law student, and many average people on the street can have an opinion about a given case and can characterize that case based on anecdotal evidence and intuition. But how do we assess whether one person's characterization is better or more accurate than another's? No matter how persuasive or insightful they might be, case-by-case descriptions are not reliable because they are not likely to be reproduced by independent replication.[40] Case outcomes scores, on the other hand, offer that possibility. Put another way, we need viable measures in order to have *reliable* analysis.[41]

The Jacobi scores are an attempt to provide the first valid and reliable measures of case outcomes. The next Part describes the scores as well as their

---

39. *See* Sag et al., *supra* note 20, at 827–28.

40. *See* JOHN SCOTT & GORDON MARSHALL, A DICTIONARY OF SOCIOLOGY 559–60 (3d ed. 2005) (defining "reliability").

41. A measure is *valid* if it effectively captures the effect that is intended to be assessed, whereas a measure is *reliable* if it yields results that are consistently accurate and stable. *See infra* notes 42–44 and accompanying text for an example. For the significance of, and often the trade-off between, validity and reliability, see Epstein & King, *supra* note 3, at 83–97.

key constituent element, Martin-Quinn scores of judicial ideology. The measures used to assess the relative merits of the Jacobi scores are described at the relevant section of Part IV.

II. THE JACOBI MEASURES

There are many different ways of scoring case outcomes that could be reliable, but knowing which measure to use depends on how we believe judges on a multi-judge court decide cases. For instance, one potential measure is to use the ideological score of the Justice writing the majority opinion. This is reliable because it is based on an objective measure that is replicable by an independent assessor.[42] However, this measure would only be valid if we believe that the author of the majority opinion holds unparalleled influence over the majority outcome by virtue of having authorship. Some scholars believe this to be true,[43] but others have challenged this assumption, arguing that unless the majority opinion reflects the views of the coalition, the majority Justices will not sign on to that opinion.[44] Certainly, there are numerous cases where majority Justices have refused to endorse a proposed opinion, and often that opinion was changed as a result.[45]

Rather than starting with a proposition as to whose views majority opinions necessarily reflect, Jacobi examines the assumptions inherent in three common, competing claims about how judges make decisions: that judges are purely ideological, that judges are collegial, or that judges strategically balance ideology and collegiality.[46]

A. CONVERTING THEORIES OF JUDICIAL BEHAVIOR INTO MEASURES OF CASE OUTCOMES

Schools of thought that model judicial behavior, such as law and economics

---

42. It is reliable assuming that a publicly available, rigorous score of judicial positioning is used. *See infra* section II.B.

43. *See* Jeffrey R. Lax & Charles M. Cameron, *Bargaining and Opinion Assignment on the U.S. Supreme Court*, 23 J.L. ECON. & ORG. 276, 276–77 (2007) (arguing that the "persuasiveness, clarity, and craftsmanship" of an opinion can give the writer a degree of monopoly power over policy determination in the case).

44. For a critique of the author-centered view of coalition formation, see THOMAS H. HAMMOND ET AL., STRATEGIC BEHAVIOR AND POLICY CHOICE ON THE U.S. SUPREME COURT 110–25 (2005) (showing that the median would have to be passive for the author to have full agenda-setting power); Chris W. Bonneau et al., *Agenda Control, the Median Justice, and the Majority Opinion on the U.S. Supreme Court*, 51 AM. J. POL. SCI. 890, 891 (2007) (empirically testing the results of Hammond, Bonneau, and Sheehan); Chad Westerland, Who Owns the Majority Opinion? An Examination of Policy Making on the Supreme Court 3 (Aug. 29, 2003) (unpublished manuscript), *available at* http://www.allacademic.com/ meta/p_mla_apa_research_citation/0/6/2/0/4/pages62042/p62042-1.php (empirically showing that the median of the majority is a better measure than the author of the majority or the Court median); *see also* Thomas H. Hammond, Who Most Influences the Majority Opinion on the U.S. Supreme Court?: Evaluating the Median-of-the-Majority-Coalition Hypothesis 2–3 (July 31, 2008) (unpublished manuscript), *available at* http://www.allacademic.com//meta/p_mla_apa_research_citation/2/7/9/4/9/ p279490_index.html (summarizing the different views).

45. *See, e.g.*, LEE EPSTEIN & JACK KNIGHT, THE CHOICES JUSTICES MAKE 66–67 (1998).

46. Jacobi, *supra* note 1, at 415.

and public choice, typically begin by defining "judicial utility," which judges are assumed to attempt to maximize.[47] Sometimes this results in heated arguments about whether judges "maximize" anything, whether they objectively apply the law, or what judicial utility can reasonably be assumed to comprise.[48] There is an extensive debate over whether and to what extent judges care about the ideological outcome of cases;[49] legal doctrine—either for its own sake,[50] for its power to control lower courts,[51] or some combination of those factors;[52] or minimizing their work so that they can maximize their leisure time.[53] The three models of judicial behavior that Jacobi provides begin by defining judicial utility, and yet they are largely agnostic on these questions.[54]

The primary question driving the Jacobi models is whether judges care only about individual case outcomes reflecting their preferences, or whether they also care about coalition size. Yet it is unnecessary to specify *why* judges care about case outcomes and what it means for outcomes to "reflect their preferences." Those preferences may be driven by ideology or by a genuine belief over what the law objectively requires; behavior will be largely consistent either way. For example, judges may embrace a "states rights" analysis because they believe it is objectively required by the Constitution or because that position promotes a conservative agenda. Either way, given that an individual judge has a view as to whether states rights should be promoted in a case, she will want that case outcome to most closely reflect her views on states rights, as applied to the facts at issue.

Similarly, judges could care about coalition size for various reasons. Some authors argue that collegiality is an important judicial norm, "a cherished source of joy in the life of an appellate judge,"[55] that promotes the value of coalition building.[56] Others expect coalition building to be important but for more

---

47. *See* Tonja Jacobi, *The Judiciary, in* PUBLIC CHOICE AND PUBLIC LAW (Dan Farber & Anne Joseph O'Connell eds.) (forthcoming 2009) (manuscript at 7–8, on file with author).

48. *See, e.g.*, Richard A. Posner, *What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)*, 3 SUP. CT. ECON. REV. 1 (1993) (discussing the various theories regarding judicial behavior).

49. *See* SEGAL & SPAETH, *supra* note 5, at 1–27.

50. *See, e.g.*, Pablo T. Spiller & Emerson H. Tiller, *Invitations To Override: Congressional Reversals of Supreme Court Decisions*, 16 INT'L REV. L. & ECON. 503, 504 (1996) (modeling Supreme Court "Invitations to Override").

51. Tonja Jacobi & Emerson H. Tiller, *Legal Doctrine and Political Control*, 23 J.L. ECON. & ORG. 326, 326–27 (2007).

52. *See* EILEEN BRAMAN, LAW, POLITICS AND PERCEPTION: HOW POLICY PREFERENCES INFLUENCE LEGAL REASONING (forthcoming 2009) (arguing that judges internalize legal norms with idealized notions of decision-making, but also have directional policy goals that influence their legal reasoning processes).

53. Posner, *supra* note 48, at 1–2.

54. *See generally* Jacobi, *supra* note 1.

55. FRANK M. COFFIN, ON APPEAL: COURTS, LAWYERING, AND JUDGING 228–29 (1994).

56. Harry T. Edwards, *Collegiality and Decision Making on the D.C. Circuit*, 84 VA. L. REV. 1335, 1335 (1998); David M. O'Brien, *Institutional Norms and Supreme Court Opinions: On Reconsidering the Rise of Individual Opinions, in* SUPREME COURT DECISION-MAKING: NEW INSTITUTIONALIST APPROACHES 91, 91 (Cornell W. Clayton & Howard Gilman eds., 1999); *see also* BRAMAN, *supra* note 52 (arguing

consequentialist reasons: to strengthen the power of an opinion by promoting public, legislative, or presidential receptivity to the position embraced in the opinion, or to promote the legitimacy of the Court, something that is arguably undermined by small coalitions determining important cases. Chief Justice Roberts, for example, argues that "[u]nanimous, or nearly unanimous, decisions are hard[er] to overturn" than close cases, and so unanimous cases "contribute to the stability of the law and the continuity of the Court; by contrast, closely divided, 5-4 decisions make it harder for the public to respect the Court as an impartial institution that transcends partisan politics."[57] The Chief Justice is correct: Congressional overrides are more likely when a decision involves an ideologically fragmented Court,[58] as is subsequent Supreme Court overruling of precedent.[59]

There is some evidence that judges care both about case outcomes and coalition building. The evidence of judges caring about case outcomes is extensive—the vast attitudinalist literature proposes that judges decide cases based on their ideological preferences.[60] Whether or not the reader agrees with this interpretation, what the attitudinalist literature clearly shows is that trends in case outcomes can be predicted with high levels of accuracy using various proxies for judicial preferences.[61] More recently, there has been some empirical

---

that legal norms, more generally, influence judicial behavior, encouraging "sincere" legal reasoning and inhibiting "attitudinal behavior," or, in other words, preventing judges from constructing justifications for their attitudinally preferred outcomes); Lewis A. Kornhauser & Lawrence G. Sager, *The One and the Many: Adjudication in Collegial Courts*, 81 CAL. L. REV. 1, 12–13 (1993) (arguing that collegiality differentiates the U.S. Supreme Court from its English roots).

57. Jeffrey Rosen, *Roberts's Rules*, ATLANTIC, January/February 2007, at 104, 105.

58. William N. Eskridge, Jr., *Overriding Supreme Court Statutory Interpretation Decisions*, 101 YALE L.J. 331, 346 (1991) (finding that "[a] majority of overridden decisions involved 4-4, 5-4, or 6-3 division[s] . . . and three-fifths of the [overridden] decisions reflected an ideological split").

59. James F. Spriggs, II & Thomas G. Hansford, *Explaining the Overruling of U.S. Supreme Court Precedent*, 63 J. POL. 1091, 1105 (2001) (finding that "a minimum winning coalition increases the risk of an overrule by 53.6% and a unanimous coalition decreases it by 46.9%").

60. *See, e.g.*, Jeffrey A. Segal & Harold Spaeth, *The Influence of Stare Decisis on the Votes of United States Supreme Court Justices*, 40 AM. J. POL. SCI. 971, 983, 987 (1996) (showing Supreme Court Justices decide cases according to their pre-existing "revealed preferences" in 90.8% of cases, and thus in only 9.2% of cases "did a justice switch to the position established in the landmark precedent"; concluding that stare decisis does not strongly influence Supreme Court Justices). *See generally* DAVID W. ROHDE & HAROLD J. SPAETH, SUPREME COURT DECISION MAKING 31 (1976) (indicating various policy goals influencing judges).

61. *See generally* Epstein & Segal, *supra* note 25 (showing the effect of ideology in First Amendment cases); Tracey E. George & Lee Epstein, *On the Nature of Supreme Court Decision Making*, 86 AM. POL. SCI. REV. 323 (1992) (showing the effect of ideology in death penalty cases); Richard L. Revesz, *Environmental Regulation, Ideology, and the D.C. Circuit*, 83 VA. L. REV. 1717 (1997) (showing the effect of ideology on environmental decisions from the D.C. Circuit); Harold J. Spaeth & Jeffrey A. Segal, *The U.S. Supreme Court Judicial Data Base: Providing New Insights into the Court*, 83 JUDICATURE 228 (2000) (discussing various uses, applications, and analysis of the Supreme Court in the context of ideology); Cass R. Sunstein et al., *Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation*, 90 VA. L. REV. 301 (2004) (showing the effect of ideology in nine of twelve issue areas at the federal appellate court level).

evidence of the strong effect of consensus voting.[62] But whereas most scholars would agree that judges care about case outcomes, for one reason or another, scholars disagree over whether and to what extent judges will trade off achieving an ideal case outcome in favor of gaining a larger coalition.[63]

Jacobi models three possible modes of judicial decision-making based on three different views of whether and to what extent judges will make this trade-off.[64] The first position is captured in the "Ideological model," which posits that judges care only about case outcomes. Although a larger coalition may be advantageous, under this theory, judges will not be willing to give ground on crafting a ruling or opinion in order to enlarge a majority coalition once a minimum of five Justices is achieved. This model reflects both the strong view of the attitudinalist literature[65] and the approach of some formal models of judicial behavior.[66]

The second position on the outcome-coalition size trade-off is represented by the "Collegial model," which reverses the assumption of the Ideological model. It posits that judges care about case outcomes, but they will be willing to do whatever is necessary—short of reversing the Court's ruling—to persuade a marginal Justice to join the majority coalition. This model reflects a strong version of the view represented above—that collegial norms are extremely important to judges.

The third view on the outcome-coalition size trade-off is provided in the "Strategic model." In some ways, the Strategic model provides a compromise position between the Ideological model and the Collegial model: it proceeds on the assumption that judges care about both factors, but does not make an accommodation-willing presumption about judges as staunchly as the Collegial model. But the Strategic model does not simply take an in-between position. Instead, it suggests that judges will be strategic in how they make the outcome-coalition size trade-off, in the sense that they will not be myopic in their concern over outcomes. Judges will consider how the accommodations that they are willing to make in the present case will affect their long-term reputations— which they may care about out of sincere concern for judicial legitimacy, or

62. *See generally* Joshua B. Fischman, Decision-Maker Under a Norm of Consensus: A Structural Analysis of Three-Judge Panels (Jan. 4, 2008) (unpublished manuscript, on file with author) (finding a strong effect of consensus voting among judges in asylum and discrimination cases before the U.S. Courts of Appeals).

63. *See, e.g.*, Hammond, *supra* note 44, at 13–14 ("[N]o matter where the opinion writer's ideal point is located, the majority opinion will always end up at [the median] . . . . [I]f the median justice prefers SQ to a draft majority opinion . . . this draft opinion cannot possibly gain majority support.").

64. Jacobi, *supra* note 1, at 418.

65. *See, e.g.*, HAROLD J. SPAETH & JEFFREY A. SEGAL, MAJORITY RULE OR MINORITY WILL: ADHERENCE TO PRECEDENT ON THE U.S. SUPREME COURT 313–14 (1999) (finding that consensual norms have eroded since Harlan Fiske Stone became Chief Justice).

66. *See, e.g.*, HAMMOND ET AL., *supra* note 44, at 79 (assuming that a Justice's "sole objective is to have the Supreme Court adopt a policy as close as possible to his or her most-preferred policy on each case"); Hammond, *supra* note 44.

more strategically, in terms of maintaining their power for future negotiations.[67] This approach is consistent with the strategic judicial literature, which defines strategic, or "sophisticated," judicial behavior as judges making forward-looking decisions that "maximize their payoffs given their beliefs about the outcomes at subsequent decision nodes."[68] Numerous studies have found substantial theoretical and empirical evidence of some level of strategic behavior by judges.[69]

Jacobi models the effect of these different theories of judicial behavior, with Justices choosing to decide a case at some majority position, M_x; retain the status quo, SQ_x; or write a concurrence, C_x.[70] The status quo is the outcome prior to Supreme Court action—the ideological position of the circuit or state court determination, such as whether a warrantless search is valid when a crime that served as the basis for the warrant was not committed. The status quo will remain the outcome if the lower court ruling is upheld without change or if the Court decides not to answer the question—for example, if certiorari is denied, if standing is denied, or if certiorari is dismissed as improvidently granted.[71] The coalition size is determined by how many judges sign on to the majority opinion at M_x; however, the content of the majority opinion, its ideological position, is itself determined by what the majority Justices agree the outcome should be. As such, for each model, there will be a different predicted case outcome, M_x, and coalition in support of M_x, for every status quo.

In essence, the Ideological model provides that a Justice will join the majority if she prefers the majority outcome to the status quo. However, the position of the majority outcome, M_x, is not just a function of the Justice's choices; it also reflects the underlying status quo and the ideological position of each Justice, and it is constrained by the need for at least a five-Justice majority coalition.[72]

---

67. Detail provided *infra* notes 77–79 and accompanying text.

68. Gregory A. Caldiera et al., *Sophisticated Voting and Gate-Keeping in the Supreme Court*, 15 J.L. ECON. & ORG. 549, 554 (1999).

69. *See, e.g., id.* at 550 (arguing that judicial agenda setting is particularly "fertile soil for strategic manipulation"); Lee Epstein et al., *Dynamic Agenda-Setting on the United States Supreme Court: An Empirical Assessment*, 39 HARV. J. ON LEGIS. 395 (2002) (same); Glendon Schubert, *Policy Without Law: An Extension of the Certiorari Game*, 14 STAN. L. REV. 284, 298–309 (1962) (discussing the various strategies involved in the Supreme Court's certiorari decisions). *But see* H.W. PERRY, DECIDING TO DECIDE: AGENDA SETTING IN THE UNITED STATES SUPREME COURT 15 (1994) (finding from interviews that Supreme Court Justices sometimes behave strategically, but arguing that deciding every case strategically would be institutionally overwhelming to the judiciary, and so outcome-focused behavior is the exception rather than the rule); Robert L. Boucher, Jr. & Jeffrey A. Segal, *Supreme Court Justices as Strategic Decision Makers: Aggressive Grants and Defensive Denials on the Vinson Court*, 57 J. POL. 824, 836 (1995) (arguing that the extent of strategic behavior varies by individual Justice).

70. For a complete formal exposition of these models, see Jacobi, *supra* note 1.

71. For more on the modeling of status quo positions, see Hammond, *supra* note 44, at 6–14.

72. This modeling treats the various stages of the opinion writing process—including the assignment of the case, writing of a draft opinion, responses of other Justices to the draft, and adjustments to other Justices' responses, as well as potential concurrences and dissents being circulated—as if they occurred in one stage. However, each stage can be strategically significant in different ways. *See* FORREST MALTZMAN ET AL., CRAFTING LAW ON THE SUPREME COURT: THE COLLEGIAL GAME 6–10 (2000) (describing

The resulting predictions of the Ideological model resemble a minimum winning coalition model, with all case outcomes at the median of the Court for all case facts.[73] This may seem overly simplistic, but the median of the Court is often assumed to dominate case outcomes. Ever since the development of Black's hugely influential median voter theorem,[74] public choice theory has emphasized the importance of medians in all vote-aggregation forums.[75] Recognition of the power of the median has entered both academic and public understandings of the judiciary, and many now assume that the Court median is always decisive in Supreme Court opinions, to the extent that some scholars consider that unless the president can "move the median," he will not be able to influence the Court through nominations.[76]

The Collegial model proposes a different constraint on judicial decision-making: judges will seek a majority opinion, M_x, that will garner the maximum possible majority coalition among those Justices who prefer some change to the status quo. This does not mean that every case will be decided unanimously, because some Justices will prefer a change in diametrically opposite directions to one another, and thus any movement from the status quo will be a zero-sum game. But we do expect that majority coalition size will be considerably higher under the Collegial model. The resulting predictions of the Collegial model resemble a maximum winning coalition, with all case outcomes at the preferred position of the Justice who is the most liberal in a conservative majority and the most conservative Justice in a liberal majority. That is, the "last Justice in" to a majority, or the "marginal Justice," will dominate case outcomes because that Justice is the most likely to leave the coalition if her preferences are not accommodated. So if the theory of judicial norms of collegiality is correct, every case should reflect the most extreme Justices within the coalition, that is, the Justice whose preferences are closest to the dissenting Justices.

---

the various stages and strategy of opinion writing); *cf.* EPSTEIN & KNIGHT, *supra* note 45, at 59 & n.b (discussing the strategy utilized in deciding to grant or deny certiorari). For an analysis of the effect of an open and closed rule for coalition formation within the context of opinion assignment, conference vote, and certiorari under the ideological model, see HAMMOND ET AL., *supra* note 44, at 139–228.

73. Jacobi, *supra* note 1, at 441. When the full Court is not hearing the case, it will not be the overall median of the Court that has leverage, but rather the median of the Court that is sitting in the particular case—unless the Justices engage in cross-case logrolling, which Justices consistently deny occurs, even those who will admit to other forms of strategic behavior. *See, e.g.,* PERRY, *supra* note 69, at 198–215 (interviewing Justices who acknowledge various forms of strategic behavior, such as aggressive grants, defensive denials, and signaling for desired cases, but strenuously deny logrolling behavior).

74. Duncan Black, *On the Rationale of Group Decision-Making,* 56 J. POL. ECON. 23 (1948).

75. *Cf.* ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY (1957) (developing the political science model of the median voter and electoral behavior in the American political system, wherein both voters and political parties trend toward centrist positions); Andrew D. Martin et al., *The Median Justice on the United States Supreme Court,* 83 N.C. L. REV. 1275, 1277 (2005) (emphasizing social scientists' focus on the median Justice as the crucial figure in determining case outcomes).

76. *See, e.g.,* Keith Krehbiel, *Supreme Court Appointments as a Move-the-Median Game,* 51 AM. J. POL. SCI. 231, 238 (2007). *But see* Lee Epstein & Tonja Jacobi, *Super Medians,* 61 STAN. L. REV. 37, 98 (2008) (arguing that not all medians are as influential as others and that presidents can influence the Court by diluting or strengthening the power of the existing median).

The Strategic model is a game-theoretic approach. It assumes that when a Justice is indifferent between joining the majority and supporting the status quo, that Justice can credibly threaten to switch sides and potentially form an alternative majority coalition with the previously dissenting Justices.[77] The impact of this threat will shape the placement of M_x. If the threat is credible, the current majority will accommodate the marginal Justice so as to maintain the majority. But the threat is only credible if the current dissenting Justices are willing to support an alternative majority that may still be very far from their preferences.[78] They will only do so if the difference between the proposed opinion and the alternative majority is greater than the difference between their preferences and what they would have to endorse to make the median's threat credible. That is, they will not go on record as supporting a view far from their preferences unless the new majority is significantly better than the initial majority. Scholars have provided both detailed case examples and statistical analysis of the effectiveness of this threat.[79] The resulting predictions of the Strategic model are that all case outcomes will reflect the average views of the majority coalition because the majority position is determined by negotiation within the coalition. So if the strategic theory of judicial behavior is correct, every case outcome should reflect a compromise between the majority Justices, as represented by the mean of their ideology scores.

Jacobi considered that the median of the majority could be an alternative to the mean of the majority coalition for the Strategic measure. Whether the median or the mean of the majority coalition will be a better proxy for the Strategic model will depend on whether Court decisions will consist more often of a majority clustered at the center of the Court or of a majority located at the

---

77. *Cf.* Saul Brenner et al., *The Defection of the Marginal Justice on the Warren Court*, 42 W. POL. Q. 409, 423 (1989) ("Marginal justices ideologically closer to one of the dissenters than to any one of the other members . . . defect disproportionately more often.").

78. Canon 19 of the Canons of Judicial Ethics states that "a court of last resort should use effort and self-restraint to promote solidarity of conclusion." CANONS OF JUDICIAL ETHICS Canon 19 (1924), *available at* http://www.abanet.org/cpr/jclr/1924_canons.pdf. So a group of very liberal Justices should not say that they are willing to form an opinion very far from their preferences simply to provide the median Justice with a threat against the conservatives in order to move the case outcome in a slightly liberal direction, unless they genuinely intend to form an alternative majority.

79. Epstein and Knight give examples of Justices amending their draft opinions so as to maintain a coalition—sometimes with explicit statements such as: "As I need you for a Court . . . I send the draft to you before circulating it." EPSTEIN & KNIGHT, *supra* note 45, at 66. Epstein and Knight also found that significant changes occur in draft opinions in over 50% of opinions studied. *Id.* at 99 tbl. 3-6. Similarly, significant amendments to opinions by dissenting Justices may render an opinion closer to the preferences of the marginal Justice than the original majority opinion, and thus induce a switch. For example, Paul Goldstein describes the development of the opinion in the landmark fair use case, *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417 (1984). PAUL GOLDSTEIN, COPYRIGHT'S HIGHWAY: FROM GUTENBERG TO THE CELESTIAL JUKE BOX 149–58 (rev. ed. 2003). Justice Stevens' dissent initially considered all private use beyond the scope of the Copyright Act, but he amended his opinion to say that fair use protects private copying for the purpose of time shifting—but potentially excluding library building—and ultimately garnered a majority coalition. *Id.* at 152, 156.

extremes, respectively.[80] Recognizing that the median of the majority coalition might be a viable alternative to the mean of the majority coalition, but without an answer to this empirical question, Jacobi left to later research the question of which of the two potential proxies for the Strategic model is better. As such, in this Article we test two versions of the Strategic measure—the mean of the majority coalition and the median of the majority coalition—and attempt to answer that question.[81]

B. INCORPORATING SCORES OF JUDICIAL IDEOLOGY INTO CASE MEASURES

Although the process by which Jacobi developed the case outcome measures is complex, the three competing mechanisms of scoring cases are quite simple. Jacobi leveraged scores of judicial ideology into case outcomes scores by recognizing that majority opinions in cases are a product of the ideological positions of the Justices on the Court, specifically those composing the majority. As such, the three measures she proposed are in essence different means of aggregating the ideological scores of each Justice involved in a case.

The Jacobi measures are each defined in terms of scores of judicial prefer-ences; accordingly, to make the Jacobi measures operational, we need measures of those judicial preferences. And not just any measure of judicial prefer-ences—to undertake such aggregation requires a method of scoring judicial preferences that is continuous, not dichotomous. Fortunately, Andrew Martin and Kevin Quinn have developed such scores. Martin-Quinn scores are not only continuous, but are also based on a standard scale, and thus they allow for

---

80. Jacobi, *supra* note 1, at 445–46.

81. As discussed in Part I, there has been very little scholarship devoted to developing scores of case outcomes. However, two working papers have discussed the median of the majority coalition as a measure of case outcomes. The possibility of using the median of the majority coalition as a measure received passing mention in Segal and Spaeth's re-examination of their classic attitudinalist tome, THE SUPREME COURT AND THE ATTITUDINAL MODEL. *See* SEGAL & SPAETH, *supra* note 5, at 434. Picking up on the Segal and Spaeth suggestion, Hammond considered the median of the coalition measure but argued that it was theoretically indefensible. Hammond, *supra* note 44, at 4–5. But Hammond only considered a model equivalent to Jacobi's Ideological model, and thus his conclusion is not persuasive. Chad Westerland empirically evaluated the median of the majority coalition measure in a 2003 working paper and found that the median of the majority was a viable measure. Westerland, *supra* note 44, at 29. In fact, Westerland found that the median of the majority performed better than a measure using the author of the case opinion or the Court median. *Id.* Westerland addressed a question closely associated to the inquiry here: Which Justice on the Court is most likely to shape the majority opinion in the case: the median of the Court, the opinion writer, or the median of the majority coalition? He tested this by examining the ideological distances between Justices and asking which distance is most determinative of an individual Justice's proclivity to join or not join a majority opinion: that between each of the three possible opinion shapers—the court median, the opinion writer, or the median of the coalition—and each other Justice. *Id.* at 3. Westerland found that the only distance measure that "is in the expected direction and statistically significant" is that between each Justice and the median of the majority coalition, suggesting that case outcomes are most likely to approximate the position of the median of the majority coalition, as compared to the other possibilities Westerland tested. *Id* at 29. Westerland used different testing techniques, did not test for the last Justice in nor the mean of the majority coalition, and based his hypotheses on individual power rather than a theory of judicial decision-making process; nonetheless, his results are consistent with our own. *See id.*

historical comparisons of Justices across time, even between Justices who never served together.[82] Due to these advantages, we use Martin-Quinn judicial scores in our empirical analysis in Part IV.

It is important to understand how these scores measure judicial ideology. Martin-Quinn scores are derived based on the votes of the Justices, using a "dynamic item response theory model"—a series of mathematical functions that estimate the relative probabilities of every possible combination of judicial preferences that could give rise to the observed case outcomes. In other words, Martin and Quinn developed a means of computing every possible combination of preferences of every Justice that served on the Court from 1937 to 2007 (originally 1999). Of those arrays of preferences, they then determined which combination best predicts the actual data observed: the case votes.

The data that the functions predict are not only every vote in every case in the given time period, but also voting patterns among the Justices in every term. Martin and Quinn leverage not only up-down (reverse-affirm) votes in every case, but also the size and composition of majority and minority coalitions. They draw inferences from the tendency of every Justice to join the majority or dissent, including whether they dissent alone or with others. A Justice who dissents alone in conservative cases is considered more liberal than a colleague who tends more often to dissent in 7-2 conservative decisions, and so on.

Because Justices tend to stagger their retirements, there are multiple cross-overs between Justices' tenures to compare over time. Martin and Quinn are thus able to compare two Justices who were never on the Court together by assessing each Justice's tendency to join majorities or dissents with other Justices that served with both of the Justices being compared. For example, Justice Alito did not serve with Justice Brennan, but Justice Stevens served with both, and so Alito and Brennan can be compared by reference to how each compares to Stevens. This allows Martin and Quinn to place each Justice on a standardized scale, which is essential for our analysis because the cases we examine occur over more than half a century.

Importantly, Martin and Quinn do not import any notion of liberal, conservative, or any other subjective characterization into their computations. Thus although Martin-Quinn scores are often referred to as measures of judicial ideology, they make no assumption as to what constitutes the content of judicial preferences. They simply provide the ordering and scores of each Justice, relative to one another, on whatever scale is operative on the Justices' preferences.

The only major assumption that Martin and Quinn have to make in order to develop the scores is that Justices can be arrayed on a single dimension of preferences. Although the capacity of one dimension to fully describe judicial preferences has not been proven, there is considerable evidence that a single

---

82. Martin & Quinn, *supra* note 7. Additionally, these scores are updated annually. *See id.*

dimension captures the vast majority of judicial behavior.[83] The fact that one dimension captures most judicial behavior does not imply that legal analysis is simplistic, only that most judicial considerations are generally quite highly correlated. For instance, a Justice's view on breadth of congressional power is likely to be closely correlated to that Justice's view on states rights and on less directly related issues, such as abortion or the death penalty. Thus we can speak of a Justice being conservative or liberal, and although occasionally the justices surprise their audience, the majority of a Justice's decisions are consistent with these expectations. In fact, Justices' votes have been shown to be highly predictable across a number of issue areas, including the death penalty,[84] freedom of speech,[85] search and seizure,[86] federalism,[87] and administrative law.[88]

Although the method used to derive their scores is quite complex, and although some may take issue with the notion of one dimension capturing judicial preferences,[89] the Martin-Quinn scores closely align with press and popular perceptions of the relative ideological positions of the Justices. Histori-cally, the most extreme Justices on the Court since 1937 were Justice Douglas in 1974, who scored −6.33, and then Justice Rehnquist in 1975, who scored 4.31. When Rehnquist became Chief Justice, he became more moderate, with an

---

83. *See, e.g.*, Bernard Grofman & Timothy J. Brazill, *Identifying the Median Justice on the Supreme Court Through Multidimensional Scaling: Analysis of "Natural Courts" 1953–1991*, 112 PUB. CHOICE 55, 58 (2002) (noting that the single dimension solution explains much of the Justices' voting behaviors).

84. *See, e.g.*, George & Epstein, *supra* note 61, at 333–34.

85. *See, e.g.*, Epstein & Segal, *supra* note 25, at 109–10 (finding that although generally the more liberal a Justice, the more likely she or he will favor litigants alleging abridgment of First Amendment rights, liberal Justices are no more likely than their conservative counterparts to uphold First Amend-ment claims where other values, such as privacy and equality, are prominently at stake; if anything, conservatives are more likely than liberals to vote in favor of speech, press, assembly, or association claims).

86. *See, e.g.*, SEGAL & SPAETH, *supra* note 5, at 312–36.

87. *See, e.g.*, Frank B. Cross & Emerson H. Tiller, *The Three Faces of Federalism: An Empirical Assessment of Supreme Court Federalism Jurisprudence*, 73 S. CAL. L. REV. 741 (2000) (finding that ideology dominates questions of institutional federalism); *see also* David B. Spence & Paula Murray, *The Law, Economics, and Politics of Federal Preemption Jurisprudence: A Quantitative Analysis*, 87 CAL. L. REV. 1125 (1999) (finding that federal judges decide preemption cases partly based on ideology, but constrained by the facts and the legal context, and not necessarily monolithically based on party affiliation). *But see* Michael S. Greve & Jonathan Klick, *Preemption in the Rehnquist Court: A Preliminary Empirical Assessment*, 14 SUP. CT. ECON. REV. 43, 86 (2006) (finding that preemption cases are multi-dimensional and "are unlikely to yield clear confirmation for either an 'attitudinal' or a 'legal' model of judicial behavior").

88. *See, e.g.*, Donald W. Crowley, *Judicial Review of Administrative Agencies: Does the Type of Agency Matter?*, 40 W. POL. Q. 265, 276 (1987) (finding that Justices Rehnquist, Burger, and Powell consistently favored conservative administrative determinations, while Justices Brennan and Marshall favored liberal outcomes).

89. *See, e.g.*, Evan H. Caminker, *Sincere and Strategic Voting Norms on Multimember Courts*, 97 MICH. L. REV. 2297, 2320 (1999) ("It is frequently assumed that . . . the majority will converge in a moderate or median position. This is likely when the Justices' ideal points can be lined up nicely in a single-peaked fashion along a single dimension, for instance from liberal to conservative . . . . But sometimes the options under discussion cannot easily be aligned along a single dimension.").

2004 term

| | Ginsburg | | | | | | |
| Stevens | Souter | Breyer | O'Connor | Kennedy | Rehnquist | Scalia | Thomas |

2006 term

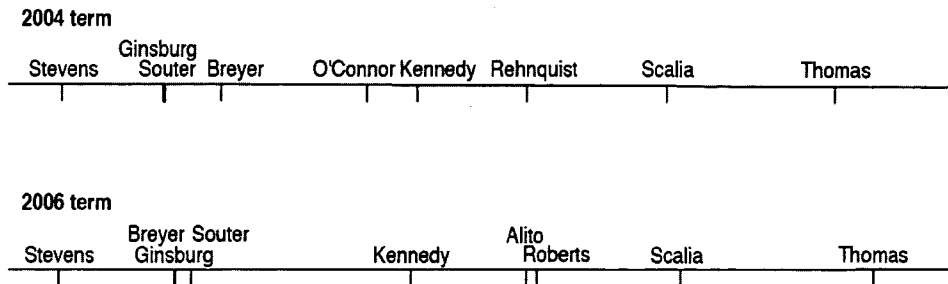| | Breyer Souter | | Alito | | |
| Stevens | Ginsburg | Kennedy | Roberts | Scalia | Thomas |

Figure 1. Martin-Quinn Scores of Judicial Ideology, 2004 and 2006 Terms

average score of 1.48. The most consistently conservative Justice on the Court has been Justice Thomas, with an average score of 3.92 (as of 2007). The historical mean of the Court is approximately 0. Figure 1 shows the positions of the Justices on the Rehnquist and Roberts Courts, which accords with typical popular perceptions of the Court.[90]

Most observers of the Court would agree that Stevens is more liberal than Ginsburg, Souter, and Breyer, who in turn are more liberal than O'Connor and Kennedy. They would also agree that Rehnquist, Alito, and Roberts are more conservative than Kennedy, but less conservative than Scalia, who is only less conservative than Thomas. Not only do the relative positions look about right, and thus the Martin-Quinn scores pass the "smell test," but the results are consistent enough that we can refer to negative scores as liberal and positive scores as conservative, even though Martin and Quinn do not incorporate any measure of directionality into their scores. Unsurprisingly then, negative/liberal Martin-Quinn scores correlate with Democrat coding in the traditional "party of the appointing president" proxy for judicial ideology, and positive/conservative Martin-Quinn scores accord with Justices having been appointed by a Republican president.

In addition, prior analysis of IP cases using Martin-Quinn scores *and* the party of the appointing president proxy, both separately and together, showed that Martin-Quinn's scores absorb all of the predictive effect of the party of the appointing President.[91] Thus the Martin-Quinn scores appear to be more nuanced than traditional scores of judicial ideology in practice—as well as being sounder in theory—because they are continuous, not dichotomous, are on a standardized scale, and are based on the actual votes of Justices, rather than

---

90. In 2004, O'Connor held the position of median Justice with a Martin-Quinn score of 0.08; with her retirement and the death of Rehnquist, Kennedy has become the median Justice, with a Martin-Quinn score of 0.49. Media portraits of Kennedy as the new "swing vote" on the Court fit very well with Martin and Quinn's analysis. *See, e.g.,* Robert Barnes, *In Second Term, Roberts Court Defines Itself; Many 5 to 4 Decisions Reflect Narrowly Split Court That Leans Conservative,* WASH. POST, June 25, 2007, at A3; Robert Barnes, *Justice Kennedy: The Highly Influential Man in the Middle; Court's 5 to 4 Decisions Underscore His Power,* WASH. POST, May 13, 2007, at A1.

91. Sag et al., *supra* note 20, at 838.

proxies or others' views of the Justices' likely preferences. As such the Martin-Quinn scores provide a good vehicle both for translating the Jacobi models into measures of case outcomes and for testing the accuracy of those measures in capturing Supreme Court case outcomes.[92]

The Jacobi models become the Jacobi measures by utilizing the Martin-Quinn scores in the following way:

1. The Ideological measure is the median of the Court on the Martin-Quinn scores;

2. The Collegial measure is the majority Justice with the lowest Martin-Quinn score when the decision is coded by Spaeth as conservative, and the Justice with the highest Martin-Quinn score when the decision is coded by Spaeth as liberal;[93]

3A. The Strategic-Mean measure is the mean of the Martin-Quinn scores of all majority Justices; and

3B. The Strategic-Median measure is the median of the Martin-Quinn scores of all majority Justices.

The Jacobi scores can now be applied to the cases. The next Part applies each of the scores to all Supreme Court cases and to Supreme Court IP cases. Then, Part IV assesses the accuracy of each of the scores.

III. SCORING THE CASES

In this Part, we apply the three Jacobi measures (with some permutations) to all Supreme Court cases decided between the 1953 and 2006 terms and all IP cases decided in the same period. Before doing so, it is worth briefly describing why we chose these particular applications.

We chose the period 1953–2006 for both principled and practical reasons. The principled reason is that this period represents what is generally considered the modern era of the Supreme Court. In the post-World War II period, the Supreme Court had discontinued its battle over the New Deal and shifted its focus to the controversies that continue to engage it today, such as constitutional battles over civil rights, social rights, and states rights, and the diminishment of the non-delegation doctrine, with its associated judicial acceptance of the modern administrative state. The mid-1950s also marks the beginning of the post-World War II boom, which arguably constitutes a distinct economic era, and thus a different context for Supreme Court jurisprudence relating to eco-

---

92. However, the incorporation of the Martin-Quinn scores into the Jacobi measures means that the Jacobi measures and the Martin-Quinn scores cannot be used in the same applications.

93. Other measures of case outcomes than the Spaeth coding can be used, see *infra* text accompanying note 96. For a more detailed discussion of this element of the measure, and variations upon it, see *infra* Part III.

nomic manners. The practical reason is that much of the data we rely on, in particular the traditional liberal-conservative coding in the Spaeth Database, is only available for that period.

Needless to say, we analyze the full universe of Supreme Court cases during this period in order to be as comprehensive—and thus as generalizable—as possible. However, this universalism limits the depth of analysis that can be undertaken. Our "All Cases" data consists of 8915 cases decided by the Court over more than fifty years. Obviously, we cannot provide a detailed doctrinal comparison of multiple scores of 8915 cases. However, we can check our aggregate results against a more detailed account of a specific area of law. In addition to looking at all cases, therefore, we run the same empirical checks on all Supreme Court IP cases in the modern era. In addition, we engage in detailed doctrinal analysis of Supreme Court IP cases in Part V.

We chose IP as our substantive area of focus for a number of reasons. It is a manageably sized universe of cases—the Supreme Court decided 105 IP cases over fifty-five years. In addition, prior work has shown that intellectual property is an area where judicial ideology is highly predictive of case outcomes[94]—an element that is important given that the Jacobi measures incorporate the Martin-Quinn scores of judicial ideology.

Another important reason for using IP cases is that intellectual property is unlike most areas of the law, for which most case outcomes are analyzed only in terms of the liberal-conservative dummy variable. The liberal-conservative variable is based on the theoretically limited notion of categorizing by party status—the question of who brings and wins litigation determines how the case is labeled. Although whether the Court finds in favor of or against an indigent plaintiff or a large corporation may correlate with whether the case broadly benefits indigents or companies, respectively, this will not always be the case. A measure that is based on the nature of the doctrinal determination, rather than the effect on the single party materially affected by the specific court order, will come closer to capturing more of a case's broader-ranging doctrinal consequences. For IP cases, there already exists a measure of case outcomes that is based instead on the Court's doctrinal determination in the case: Sag, Jacobi, and Sytch (SJS) coded each IP case as to whether the Court decided for or against the intellectual property claimant.[95] To provide the most thorough investigation of the Jacobi scores, we examine them against both the Spaeth liberal-conservative scores of cases and the SJS intellectual property claimant-scores of cases.[96]

One complication of using the IP claim variable is that it produces an

---

94. Sag et al., *supra* note 20.

95. *Id.* (developing the variable that distinguishes between cases on the basis of deciding for or against the intellectual property claim). Note that although IP cases often involve two parties who are both owners of distinct IP rights, the Court is rarely confronted by directly conflicting claims of IP protection. For a more detailed discussion of the Pro-IP variable, see *id.*

96. We have also updated the SJS IP coding to take into account recent Supreme Court decisions.

alternative category of case outcomes that can be used as a base quantification in the Collegial measure. As a reminder, the Collegial measure is the case outcome preferred by a maximum winning coalition—the score of each case will be the "last Justice in" to the majority. That Justice will be the most extreme Justice within the coalition; but on any coalition, there are two extremes. The Collegial score for a case is the most extreme Justice in the direction of the status quo. Thus, unlike the other two measures, the Collegial measure requires a characterization of the *direction* of the decision. But in IP cases, we have two variables that capture the direction of the decision: the liberal-conservative variable and the IP claimant variable. For completeness sake, we calculate the Collegial measure twice for each IP case, using both variables. As such, as well as having two variations of the Strategic measure, we also have two variations of the Collegial measure. Because both the liberal-conservative variable and Pro-IP variable are dummy variables, these alternate forms of the Collegial measure will produce either the same score or the polar opposite score, depending on whether the Spaeth coding and the Pro-IP coding correspond: for example, the Spaeth coding and SJS coding would be the same if a decision is conservative according to Spaeth, and Pro-IP according to SJS.

A. APPLYING THE SCORES TO ALL CASES

We begin our analysis with all Supreme Court cases decided between 1953 and 2006. The composition of those cases is shown in Table 1. We have 8915 cases spread over 13 subject areas, as coded by the Spaeth Database.[97]

Table 2 shows the descriptive data for the Jacobi scores as applied to all Supreme Court cases in our study.

The first important point to note from Table 2 is that each of the Jacobi measures of case outcomes has a mean close to zero. The two variations of the Strategic scores are similar to each other and to the Ideological score. Both have moderately positive (conservative) mean scores. However, given the standard deviations, those positive integers are not significantly different from zero (historical neutrality). While the deviations for both Strategic measures are larger than for the Ideological measure, they are still only approximately 10% of the overall historical range of the Court.

The mean of the Collegial measure is negative (liberal), but still also effectively zero. The most striking fact, however, is that the standard deviation of the Collegial measure is much larger than the deviations of the other measures. Given that the historical ideological range of the Court has only covered approximately 10 on the Martin-Quinn scale, a standard deviation of 2.58 is exceptionally large, almost three times as large as that of any other measure. Thus the Collegial measure stands in contrast to the Ideological and Strategic measures in that it suggests there will be enormous variation among cases,

---

97. Spaeth, Spaeth Database, *supra* note 19.

Table 1: Composition of All Supreme Court Cases[98]

Policy Area	Number of Cases	Percentage
Criminal Procedure	2414	27.08
Civil Rights	1543	17.31
Economic Activity	1387	15.56
Judicial Power	1275	14.30
First Amendment	760	8.52
Federalism	331	3.71
Due Process	319	3.58
Unions	308	3.45
Federal Taxation	261	2.93
Privacy	110	1.23
Attorneys	104	1.17
Interstate Relations	75	0.84
Miscellaneous	28	0.31
Total	8915	100.00

Table 2: Jacobi Measures for All Supreme Court Cases

Measure*	Mean	Standard Deviation
Ideological	0.35	0.49
Collegial (Liberal)	−0.19	2.58
Strategic-Mean	0.13	0.87
Strategic-Median	0.33	0.75

* 8915 observations for each measure.

rather than moderate variation. We return to this theme below.

Given that the Martin-Quinn scores, from which the aggregate measures are derived, have a historical average approximating zero, the fact that the means of all three measures are effectively zero is an encouraging sign that the measures are not skewed. However, we now undertake more detailed analysis to confirm this impression.

To continue assessing whether the measures include any bias, we look to whether the distributions are normal, or if in contrast, there is any skewness (lack of left-right symmetry) or kurtosis (whether the data is peaked or flat, relative to a normal distribution). None of the distributions are normal accord-

---

98. *Id.*
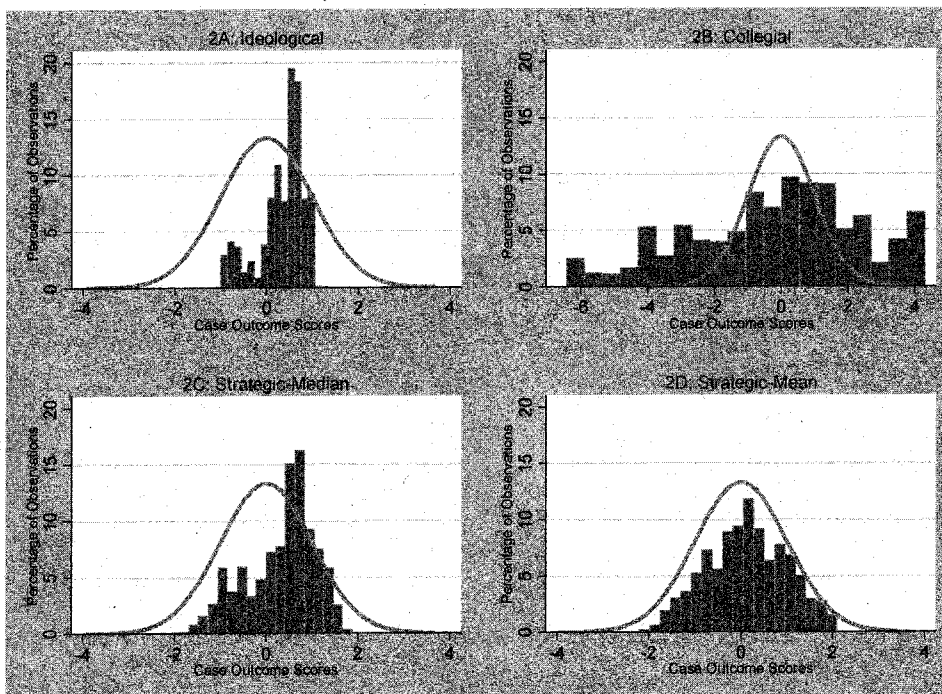
Figure 2. Distribution of Case Outcome Scores

ing to the standard combined skewness and kurtosis test for normality. This is not surprising because the large number of observations in our data means that any deviation from normality will easily reach a level of statistical significance. However, some of the measures are far more skewed and have higher kurtosis than others.

Figures 2A to 2D are a set of histograms constructed to illustrate the distributions of the measures under investigation. The bell-shaped line represents a normal distribution over the same range of data. A visual inspection of the scores generated by the Ideological measure in Figure 2A indicates that the distribution is uneven and very skewed.[99] The distribution for the Collegial scores in Figure 2B is notably flat and is somewhat skewed.[100] The distribution of the outcome scores for the Strategic-Median measure in Figure 2C is also uneven and skewed, but it, at least, resembles the bell-shaped curve of the normal distribution.[101] The outcomes generated by the Strategic-Mean measure in Figure 2D are closer to normal and do not appear to be very skewed.[102]

We have to be careful interpreting these results: having a normal distribution

---

99. The skewness of the Ideological scores is −1.06.
100. The skewness of the Collegial scores is −0.33.
101. The skewness of the Strategic-Median scores is −0.59.
102. The skewness of the Strategic-Mean scores is −0.05.

is advantageous for performing many statistical tests because the more that these distributions resemble normal distributions, the less idiosyncratic they appear to be; but a finding of normality for any of our measures is only a factor in its favor if the underlying data is in fact normal. There could be two reasons for the first three of our measures illustrated in Figure 2 showing very non-normal distributions. First, the data itself could be non-normal. This is less likely in the All Cases dataset than the IP dataset due to the considerably higher number of cases in the former than the latter. However, because the Supreme Court has discretion over its docket by its ability to grant certiorari, it is certainly possible that the underlying distribution of cases is not normal. Second, the underlying data could be normal, but the measures could yield non-normal results because they do not accurately capture at least some types of cases. If the latter is true, then this shows that the Strategic-Mean measure is the best measure, because it is very close to normal. The former is unlikely to be the case because the Strategic-Mean measure comes so close to normality. Even given the selection effects created by certiorari, it is highly unlikely that one measure would show an almost normal distribution when the underlying facts are actually very skewed. Put another way, to show an almost normal distribution when the underlying facts were in fact non-normal, the Strategic-Mean measure would have to have an exact mirror image of the underlying skew. We think that this is unlikely; thus we consider the normal distribution of the Strategic-Mean measure to be a strong indicia of its superiority.

Ultimately, whether the results illustrated in Figure 2 provide support for the Stategic-Mean measure depends on what our expectations are in relation to the underlying data. Almost the entirety of cases scored by the Ideological measure exist in the narrow range between −1 and 1 on the historical 10-point range of the Martin-Quinn scale, with only a small amount of variation in case outcomes even when the cases have starkly different facts. In marked contrast, when scored by the Collegial measure, the cases' outcomes distribute fairly evenly across the full range of the historical ideological spectrum of the Justices. Finally, the two Strategic measures score the cases as ranging more moderately, between −2 and 2, and in the case of the Strategic-Mean measure, the bulk of cases centered around the historical Court mean, zero. Thus if we expect a very tightly bunched range of cases that are skewed left, then the Ideological measure would be most promising. If we expect something closer to a uniform distribution, this supports the Collegial measure. If we expect a fair degree of normality but with a left-skew, the Strategic-Median measure may be most accurate. But if we expect a normal distribution, then the Strategic-Mean measure provides the best case outcome measure.

Figure 3 below illustrates how the measures compare over time. It plots the average of each score for each term along the vertical axis against time (measured by Supreme Court terms) along the horizontal axis. From this Figure, it is apparent that the term averages for each of the measures are clustered in a fairly narrow range, between −1 and 1. It is also apparent that for the Ideologi-
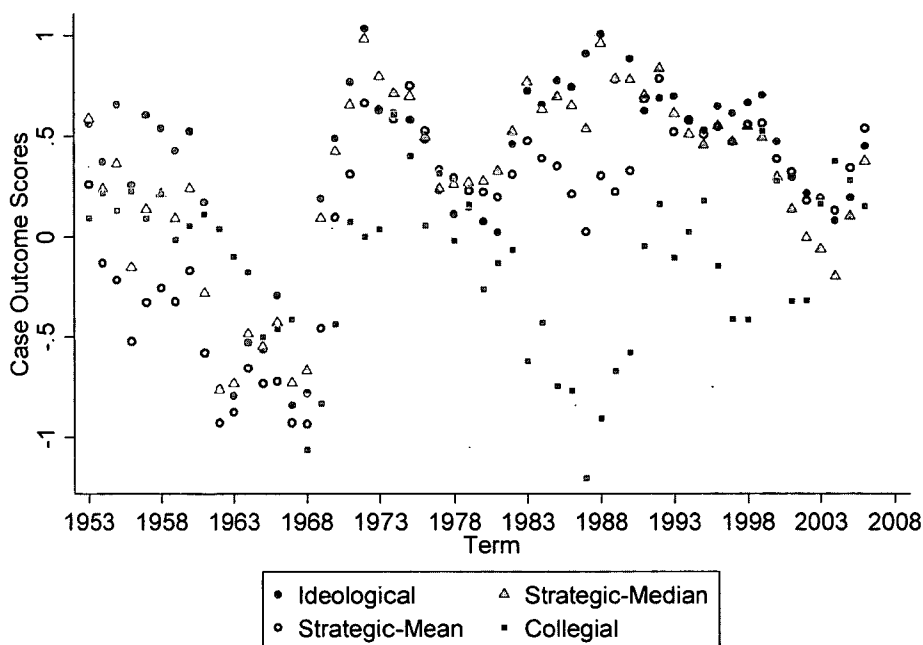
Figure 3. Average Jacobi Scores for All Supreme Court Cases by Court Term

cal and the two Strategic measures, the term averages tend to move together across time: each of the mean scores of the Ideological and the two Strategic measures show a large downward trend in the 1960s, during the Warren Court, when most observers would agree that the Supreme Court became much more liberal, returning to moderate relative conservatism from the 1970s onwards.

The Collegial measure is the exception. From the late 1970s, throughout the 1980s, and through much of the 1990s, the Collegial measure casts the average of all the Supreme Court cases as liberal, in stark contrast to the common perception of the Burger and Rehnquist Courts as relatively conservative. This is an initial indicator that the Collegial measure may be at odds with the Ideological and Strategic measures, at least when each is aggregated by term, and is somewhat of a curiosity when contrasted to common understandings of the Court. We provide a more formal test of this impression in section IV.C.

Before empirically assessing the relative merits of the Jacobi scores, we now examine whether the trends from the All Cases data exist in the IP Cases data.

B. APPLYING THE SCORES TO IP CASES

The Supreme Court decided 105 IP cases between 1953 and 2006. The composition of those cases is shown in Table 3. Over half of the cases are patent cases, although there are a significant number of copyright cases and trademark

Table 3: Composition of Intellectual Property Cases[103]

IP Issue	Number of Cases	Percent
Patent	54	51.43
Copyright	24	22.86
Trademark & Unfair Competition	22	20.95
Trade Secret	4	3.81
Right of Publicity	1	0.95
Total	105	100.00

and unfair competition cases. The number of right of publicity and trade secret cases is trivial, and thus we cannot draw meaningful conclusions specifically about those two topics.

Table 4 shows the effect of applying the three Jacobi measures, with their variations, to IP cases.

The Ideological measure once again has a moderately positive (conservative) mean score of 0.25. Again, however, the positive integer is not significantly different from zero (historical neutrality), given the standard deviation of 0.53. The two variations of the Strategic scores are similar to each other and to the Ideological score.[104] They each have moderately positive means and have standard deviations that, while larger than the Ideological score, are still less than 10% of the overall historical range of the Court. In IP, the two variants of

Table 4: Jacobi Measures for Intellectual Property Cases

Measure*	Mean	Standard Deviation
Ideological	0.25	0.53
Collegial Measure (Liberal)	0.73	2.80
Collegial Measure (Pro-IP)	1.07	2.74
Strategic-Mean	0.10	0.81
Strategic-Median	0.26	0.69

* 105 observations for each measure.

---

103. Spaeth, Spaeth Database, *supra* note 19.

104. Given the small sample size, it is not entirely surprising that we are unable to reject the null-hypothesis that, on average, the scores yielded by the Ideological measure (median of the Court) and the Strategic-Median measure are the same. This calculation is based on a simple t-test of the means. A t-test assesses whether the means of two groups are statistically differentiable, assuming a normal distribution, and is interpreted using standard tests of statistical significance ($p < 0.05$).
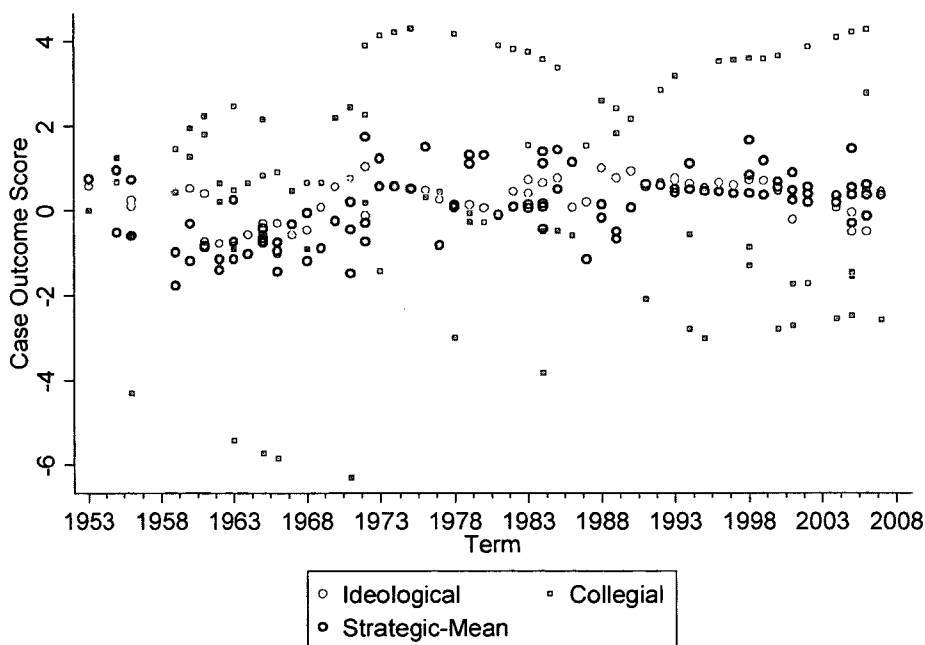
Figure 4. Jacobi Scores for Supreme Court IP Cases by Court Term

the Collegial scores have larger positive means and again have extremely large standard deviations.

Figure 4 illustrates the relationships between the various case outcome scores over time. Because there are far fewer cases, Figure 4 plots the scores for each of the primary measures for every case over the relevant time period rather than relying on averages.[105]

There is, understandably, much more variation in Figure 4 than in Figure 3 because Figure 3 shows the term averages for all cases, whereas Figure 4 identifies each IP case. It becomes apparent from Figure 4 why the variance of the Collegial measure is so high: although there are more unanimous opinions in IP cases than the average Supreme Court case, the Collegial measure has case outcomes ranging over the full historical distribution of the Court, from −6 to 4. The Ideological and Strategic measures are much more closely aligned, with both measures showing case outcomes as clustering more closely around the Martin-Quinn historical mean of zero than the Collegial measure. This indicates that the Ideological and Strategic measures predict considerably more power falling to moderate Justices than extremist Justices, reversing the results of the Collegial measure.

Having applied the Jacobi measures to our two sets of data, the next Part

---

105. For the individual scores of each IP case, see *infra* app. tbl. 12.

assesses the relative value of each of the measures.

IV. ASSESSING THE SCORES EMPIRICALLY

There are two alternative ways of determining which of the three Jacobi measures of case outcomes is most appropriate to use in empirical analysis. First, given that the measures are derived from certain assumptions about how judges decide cases, one could simply make a determination as to which set of assumptions is most compelling or persuasive and adopt the corresponding measure. Alternatively, one could compare the outcomes predicted by each of the scores to the actual output of the Supreme Court's docket and find the measure that best predicts that output. The second route not only informs us of which measure is most appropriate, it also allows us to infer which pattern of judicial decision-making is, in fact, most likely to have been operative, instead of assuming which theory is correct. This Part adopts the second approach.

We do this in four ways. In section A, we empirically test the relationship between each Jacobi measure and the traditional liberal-conservative categorization of cases. We do this for All Cases and for IP Cases. In section B, we run similar tests comparing all IP case outcomes, as categorized by the Pro-IP score, to each Jacobi measure. In section C, we run tests of the correlations among the Jacobi measures to ascertain whether there are significant differences between each. Finally, in Part V, we assess each Jacobi measure against doctrinal analysis of important IP cases.

Before launching into our empirical analysis, it is helpful to review some of the basic terms and concepts used. We conduct a number of tests of correlations in the analysis that follows. A positive correlation indicates that two variables move systematically in the same direction as one another—for example, height and weight are positively correlated in the general population—whereas a negative correlation indicates that as one variable increases, the other decreases— for example, wealth and infant mortality are negatively correlated.

Because such correlations could be found even where no relationship exists between the two variables, we test whether all of the correlations we find are statistically significant—that is, whether we can confidently conclude that the relationships we uncover are not a product of random chance. We adopt the standard scientific measure of "statistical significance," which is reached when a p-value is less than 0.05—this means that there is a less than 5% chance that the reported results are a random effect. We also indicate when results are "highly statistically significant," which arises when the p-value is less than 0.01—which translates to less than a 1% chance of seeing the result if the relationship is random.

A. COMPARING THE JACOBI MEASURES TO EMPIRICAL SCORES OF LIBERALISM

Our initial comparative assessment of the competing case outcome measures is based on a comparison to the traditional liberal-conservative dummy variable.

Table 5: Correlation of Jacobi Scores and Spaeth's Liberal Coding

	ALL CASES	IP CASES
Measure	Correlation with Liberal = 1	Correlation with Liberal = 1
Ideological	−0.20**	0.02
Strategic-Mean	−0.61**	−0.47**
Strategic-Median	−0.52**	−0.32**
Collegial (Liberal)	0.77**	0.82**
Collegial (Pro-IP)		0.30**
Observations	8808	105

* = $p < 0.05$; ** = $p < 0.01$

As discussed, the animating purpose of this Article is to go beyond the traditional dichotomous approach to scoring case outcomes; nonetheless, we can still use this variable to make an aggregate assessment of the reliability of the alternative measures. We make this assessment for all Supreme Court cases in the relevant period and also specifically for IP cases.

Table 5 shows the correlation between the traditional liberal-conservative dummy variable and the measures we are attempting to evaluate.[106] It is important to note that each case is scored by Spaeth as positive on the liberal-conservative coding if the case is liberal, whereas under Martin-Quinn scores, more liberal Justices receive negative scores and more conservative Justices receive positive scores. As such, we expect a negative correlation between each Jacobi measure and the liberal-conservative variable.

Table 5 reveals some striking results. In the All Cases data, the Ideological measure and the two variations of the Strategic measure are each correlated with the traditional liberal-conservative dummy variable in the direction predicted. These correlations are significant at the 0.01 level,[107] although in the case of the Ideological measure, the size of the correlation is not particularly large (−0.20).[108] The correlation coefficients for the two variations of the Strategic measure are considerably more substantial: −0.61 for the Strategic-Mean measure and −0.52 for the Strategic-Median measure.

The correlation between the Collegial measure and the traditional liberal-

---

106. Although we run a pair-wise correlation in this analysis, the results are almost exactly the same using a Spearman correlation. There are only 8808 observations in this table because the Spaeth liberal-conservative coding was missing in some cases.

107. Again, this effectively means that there is a less than 1% chance that the finding of a relationship is a product of random chance.

108. In absolute values, the level of correlation ranges from 0 to 1, with 1 indicating perfect correlation and 0 indicating no correlation whatsoever. A negative correlation means that the two variables change together but in the opposite direction.

conservative dummy variable is also significant at the 0.01 level; however, it is in the opposite direction to that predicted. Thus by accounting for the most extreme Justice on the Court in the direction of the status quo, the Collegial measure appears to reverse the direction of case outcomes from what is expected. In essence, our results show that for the Collegial measure to be accurate, liberal majorities must be willing to sign on to extreme conservative outcomes in order to maintain large coalitions, and vice versa. This constitutes a second strike against the viability of the Collegial measure: it does not accord with common views of the direction of specific Court eras—the relative conservatism of the Burger and Rehnquist eras—and is at odds with the liberal-conservative characterization of case outcomes.

In the All Cases data, each of the correlations between the Jacobi measures and the liberal-conservative case scores is highly significant at the 0.01 level. Moreover, the differences between the correlations themselves are also highly statistically significant in the All Cases data.[109]

We see the same overall pattern emerge in the smaller set of IP Cases, although with some differences. Once again, both variants of the Strategic measure are in the direction predicted (negative), are substantively significant, and are highly statistically significant at the 0.01 level. The magnitude of the correlation coefficients for the Strategic-Mean and the Strategic-Median measures are fairly similar, -0.47 and -0.32, respectively. Given the small sample size and the fact that the correlation between the two is highly significant, we cannot say with confidence that there is any difference between those two correlations.

In contrast to the All Cases data, the Ideological measure does not appear to have any substantive or statistically significant relationship with the liberal-conservative variable in IP Cases. The correlation coefficient is close to zero, and the p-value of 0.87 does not come close to statistical significance. This difference from the results in the All Cases data may result from the fact that the sample size in the IP Cases is considerably smaller, or it may result from some systematic difference between IP cases and Supreme Court cases generally of which we are unaware.[110]

As discussed, we chose to analyze IP Cases in addition to simply looking at All Cases in part because it gives us another way of assessing case outcomes, apart from the traditional liberal-conservative coding. Because we can code cases based on either Spaeth's assessment of the outcome (as either liberal or

---

109. The difference between two correlations can be compared with the assistance of Fisher's r-to-z Transformation, which converts the correlation statistic r into the normally distributed variable z. *See generally* James H. Steiger, *Tests for Comparing Elements of a Correlation Matrix*, 87 PSYCHOL. BULL. 245 (1980) (reviewing the literature on the comparison of correlation coefficients). For a more detailed explanation, see REBECCA M. WARNER, APPLIED STATISTICS: FROM BIVARIATE THROUGH MULTIVARIATE TECHNIQUES 275–77 (2007).

110. In light of our previous findings in *Ideology and Exceptionalism*, we find this second explanation unlikely. *See* Sag et al., *supra* note 20, at 846; *supra* section III.B.

Table 6: Correlation of Jacobi Scores and SJS Pro-IP Coding in IP Cases

Measure	Correlation with Pro-IP = 1
Ideological	0.13
Collegial (Liberal)	−0.32**
Collegial (Pro-IP)	−0.84**
Strategic-Mean	0.33**
Strategic-Median	0.27**
Observations: 105	

* = p < 0.05; ** = p < 0.01

conservative) or our own measure (favoring or disfavoring the IP claimant), we have two alternative categories of case outcomes that can be used as base quantifications in the Collegial measure. As reported in Table 5, both variants of the Collegial measure are substantively and statistically significant, but again in the wrong direction. The primary Collegial measure has an enormous correlation of 0.82, which means that cases that Spaeth codes as liberal will overwhelmingly result in conservative Collegial case outcome scores. The strength of the correlation for the alternative Collegial measure is much weaker, 0.30, but remains significant. Thus, for IP Cases as well as All Cases, the Collegial measure has results contrary to expectations.

B. COMPARING THE JACOBI MEASURES TO AN EMPIRICAL SCORE OF IP CASE OUTCOMES

In this section, we make use of the SJS case outcome variable, which codes each IP case according to whether the Court decides in favor of the intellectual property claimant. In their investigation of the relationship between ideology and judicial decision-making in IP cases, SJS found that ideology is a significant determinant of cases involving IP rights: the more conservative a Justice is, the more likely he or she is to vote in favor of an IP claim.[111] In short, SJS established that attitudes about IP. issues are part of the liberal-conservative ideological continuum, not an exception to it.[112] In light of this finding, we are able to use the coding scheme devised by SJS to supplement our current analysis because it offers an alternative indication of whether a case should be considered liberal or conservative. Accordingly, on the assumption that outcomes that favor the IP claimant are generally conservative, we now expect to find a positive correlation between each of the Jacobi measures and the Pro-IP outcome variable. Table 6 illustrates our results.

Table 6 conforms to our results in Table 5 in the previous section. The correlation between the Pro-IP variable and the Ideological measure is in the

---

111. Sag et al., *supra* note 20, at 838.
112. *Id.*

direction predicted (positive), but the coefficient is small and not statistically significant. In statistical terms, it is not distinguishable from zero. The Strategic measures are again positive, modestly sized (0.33 and 0.27), and statistically significant at the 0.01 level. The primary version of the Collegial measure—using the Martin-Quinn score of the majority Justice who is closest to the status quo—is significant at the 0.01 level, but once again, in the opposite direction to that predicted. The coefficient (-0.32) is negative and significant.[113]

This provides yet another indication that the Collegial measure is somewhat lacking and that the Ideological measure is inferior to the Strategic measures, at least in the intellectual property context, because it failed to show the predicted result, both when tested as against the liberal-conservative variable and against the Pro-IP variable.

C. THE RELATIONSHIP AMONG THE MEASURES FOR ALL CASES AND IP CASES

A pattern has emerged in the correlations between the Jacobi measures and the traditional liberal-conservative outcome coding and the correlations between the Jacobi measures and the SJS Pro-IP coding. The Strategic measure, in both permutations, demonstrated a substantive and significant level of correlation with the traditional liberal-conservative outcome coding in the All Cases and in the IP Cases data. The Ideological measure appeared to be only weakly and inconsistently correlated with either outcome variable, while the Collegial measure appeared to be quite perverse. The correlations between the measures and the alternative Pro-IP outcome variable reinforced the inference in favor of the Strategic measures.

Before we can reach any final conclusions about the relative merits of the measures, however, three questions must be answered. First, is there any significant difference among the three Jacobi measures? That is, are the differences we have so far identified trivial or consequential? Second, is the impression that the Collegial measure is effectively unrelated to the overall direction of the Court correct? That is, are the seemingly perverse results of the Collegial measure systematic and not just impressionistic? Third, is there any significant difference between the two permutations of the Strategic measure? That is, if we conclude that the Strategic measure is the best measure of case outcomes, which version should we use? If the answer to these three questions is "yes," then we can confidently reach a conclusion over which measure of case outcomes is recommended for use in empirical legal analysis. These three questions can be answered by examining the relationships among the three Jacobi measures.

When looking only at term averages, the three measures appear similar

---

113. For completeness, we performed the same analysis using the second version of the Collegial measure. However, any result on this variant of the measure has to be treated with suspicion because it is somewhat circular, in that both sides of the ledger use Pro-IP. Unsurprisingly, the coefficient for this version of the measure is extremely high, yet it is still in the wrong direction.
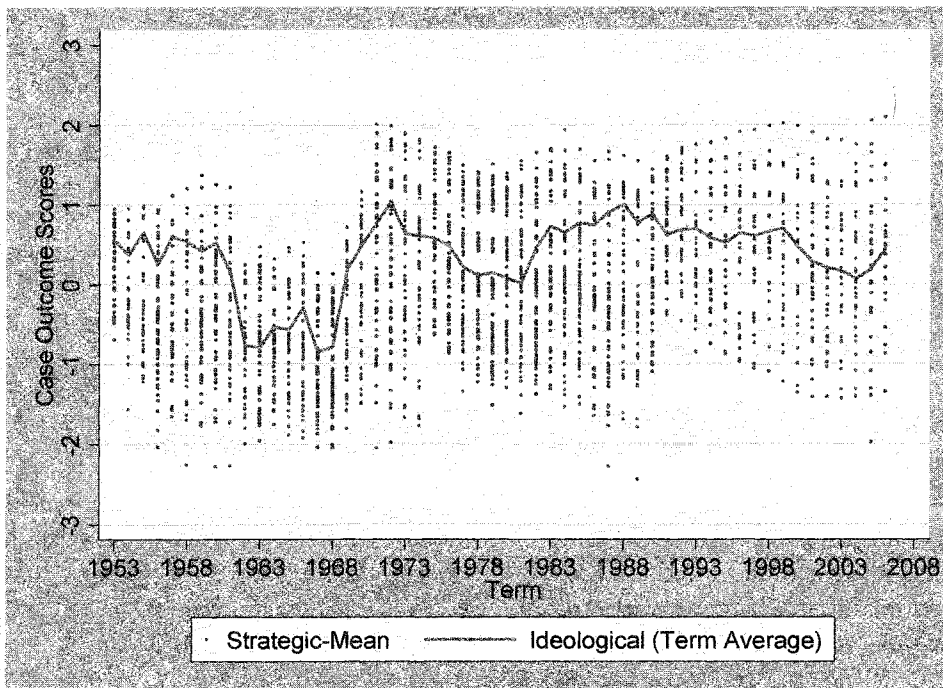
Figure 5. Strategic Scores for All Supreme Court Cases with Ideological Scores by Court Term

because all coalesce around the historical mean of zero. But when examining the distribution of the measures in greater detail, it becomes clear that the measures are in fact quite different from one another. To visualize the relationships between the measures, we have charted the individual case outcome scores for the Strategic and Collegial measures against the term average for the Ideological measure in the Figures below. Figure 5 shows the Strategic-Mean scores for each of the 8915 Supreme Court cases, along with the position of the term averages of the Ideological measure. Figure 6 undertakes the same analysis for the Collegial measure, showing every case's Collegial score and, once again, the term average of the Ideological measure.

A comparison of Figures 5 and 6 indicates that the Strategic-Mean measure and the Ideological measure are more closely tied to each other than the Collegial measure is to either.[114] However, a simple t-test confirms that although the means for the Ideological score and the Strategic-Mean score are fairly close, there is a meaningful distance between them.[115]

Whereas in Figure 5 the overwhelming majority of case outcome scores

---

114. An impression we confirm more formally below in this Part.
115. *See supra* note 104. A paired t-test here rejects the null-hypothesis that the means are equal (p = 0.0003).
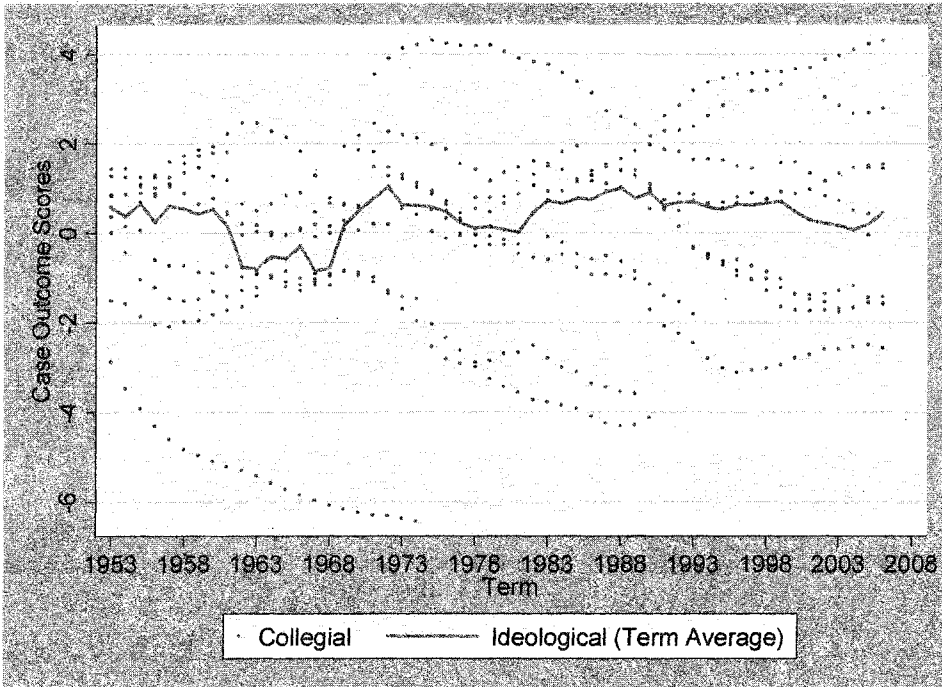
Figure 6. Collegial Scores for All Supreme Court Cases with Ideological Scores by Court Term

under the Strategic-Mean and Ideological measures lie between −2 and 2, the Collegial scores in Figure 6 range wildly, covering the full historic range of judicial ideology. Note that Figures 5 and 6 contain the same number of observations (8915); however, many of the observations in Figure 6 exactly overlap with one another, which creates the false impression of fewer observations. The broad range of outcomes seen in Figure 6 should only come about if the Court has faced an enormous variety of status quos, ranging across and beyond the full range of judicial preferences.

For example, according to the Collegial measure, in the 1960s and 1970s, there were 195 cases that scored −6 or below. Justice Douglas is the only Justice ever to have had a Martin-Quinn score below −6. In order to believe the Collegial measure is a good measure, we would have to believe that the Court faced 195 sets of case facts that were so liberal that a unanimous Court would consider an outcome that reflected Justice Douglas's ideal preferences as an improvement on the status quo.

Similarly, there were 398 cases that scored over 4 on the Martin-Quinn scale. Only then-Justice Rehnquist (between 1973 and 1980) and Justice Thomas (between 2004 and 2006) scored over 4 on the Martin-Quinn scale. Yet according to the Collegial measure, a unanimous Court signed on to outcomes reflecting their extreme preferences in 398 cases in those ten years. Thus for
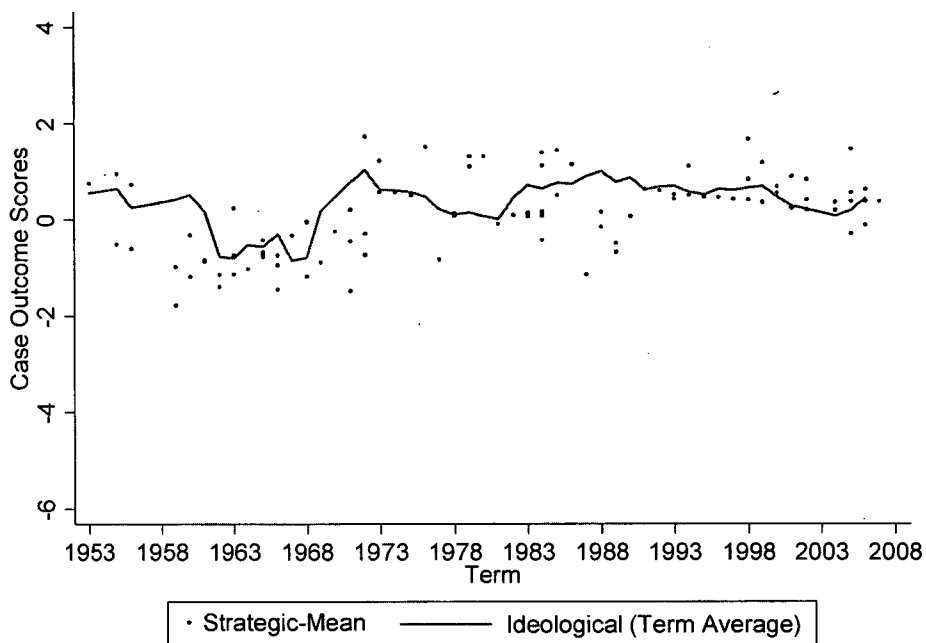
Figure 7. Strategic Scores for IP Cases with Ideological Scores by Court Term

Figure 8 to be an accurate representation of Supreme Court decisions in the last fifty-five years, and for the Collegial measure to be persuasive, the underlying facts that the Court faced must have regularly been quite extreme relative to the Justices on the Court.

Overall, it appears that the Strategic and the Ideological measures are related, but far from identical, while the Collegial measure appears to be quite unrelated to either of the other two measures. In IP Cases, many, but not all, of these effects are recreated. Figures 7 and 8 replicate Figures 5 and 6 with respect to the IP data.

Figure 7 suggests that there is, again, a high correlation between the Ideological and Strategic measures as applied to IP Cases. As anticipated, the range of case outcomes under the Strategic-Mean measure is broader than under the Ideological measure, but the Strategic-Mean measure tracks the median of the Court fairly closely. The Collegial measure only tracks the median of the Court to the extent that the scores on the very wide range of case outcomes are compressed to a range of approximately 2 to −6 in the 1950s and 1960s, when the Court was more liberal, and then rise to between 4 and −6 from the 1970s onward, when the Court became somewhat more conservative. Interestingly, the IP Case outcome scores under the Collegial measure do not appear to represent the full range of judicial preferences but instead largely track the two extremes
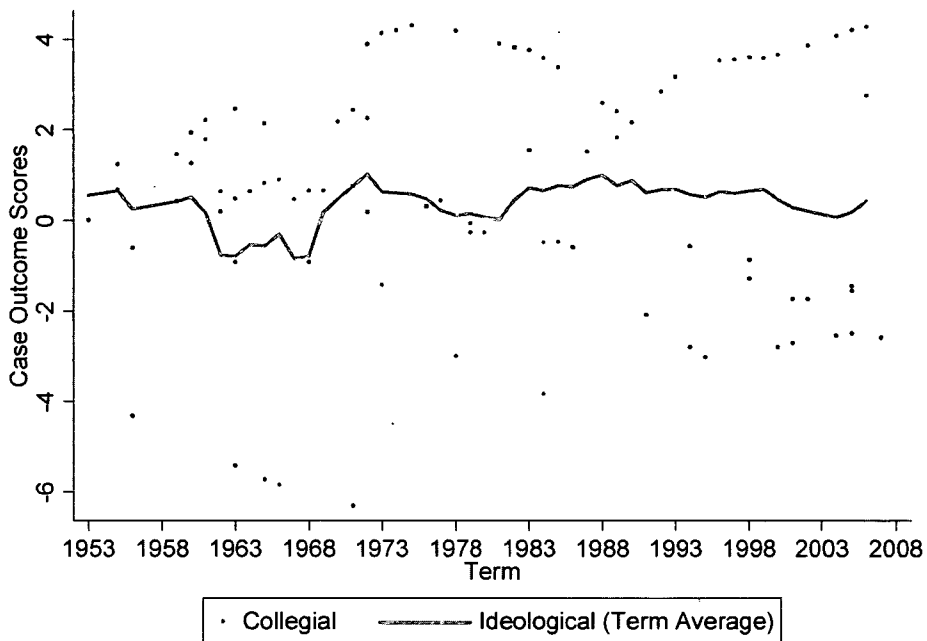
Figure 8. Collegial Scores for IP Cases with Ideological Scores by Court Term

and the center of the Court, with few results represented in between. This could be an idiosyncrasy of IP Cases and does not arise in the All Cases data in Figure 5.

Figures 7 and 8 confirm the impression of Table 4 and Figure 6: the Strategic-Mean measure tracks the median of the Court reasonably closely, whereas the Collegial measure does not. The Collegial measure also covers the full historical ideological range of the Court, even for the smaller IP database.

To confirm these visual impressions, we now check the correlations among the Jacobi measures. Tables 7 and 8 report the results of this analysis for All Cases and IP Cases, respectively.

In answer to our first question, whether the difference between the scores is

Table 7: Correlations Among Jacobi Measures in All Cases

SCORE	Ideological	Collegial	Strategic-Mean
Collegial	−0.01		
Strategic-Mean	0.46**	−0.04**	
Strategic-Median	0.62**	−0.10**	0.86**
Observations: 8808			

* = p < 0.05; ** = p < 0.01

Table 8: Correlations Among Jacobi Measures in IP Cases

SCORE	Ideological	Collegial (Liberal)	Collegial (Pro-IP)	Strategic-Mean
Collegial (Liberal)	0.21*			
Collegial (Pro-IP)	0.07	0.43**		
Strategic-Mean	0.45**	0.02	0.12	
Strategic-Median	0.62**	0.06	0.07	0.88**
Observations: 105				

* = $p < 0.05$; ** = $p < 0.01$

meaningful, we see from Tables 7 and 8 that both Strategic measures are substantially correlated with the Ideological measure with high levels of statistical significance. In the All Cases data, both manifestations of the Strategic measure are strongly correlated with the Ideological measure (0.46 and 0.62, respectively). The results in the IP data are almost exactly the same (0.45 and 0.62, respectively).

But the two measures are not equivalent to one another; t-tests of whether significant differences exist between the Ideological measure and the Strategic-Mean measure and between the Ideological measure and the Strategic-Median measure are both positive, with p less than 0.01. Thus a significant difference does exist between the two Strategic measures and the Ideological measure.

More specifically, the Strategic measures consistently perform better than the Ideological measure. As indicated in Table 5, there is a higher correlation between the Strategic measures and the traditional liberal-conservative dummy variable in All Cases than for the Ideological measure. Similarly, as seen in Tables 5 and 6, only the Strategic measures had the expected significant correlation with the liberal-conservative variable or with the Pro-IP outcome variable in the IP Cases. Given this, and the fact that there is a significant difference between the Strategic and the Ideological measures, we conclude that the Strategic measures more reliably capture the case outcome directions than the Ideological measure.[116]

To continue to answer the first question, and to begin to answer the second question, whether the somewhat perverse results of the Collegial measure are systematic, note that the results displayed in Tables 7 and 8 continue to indicate that the Collegial measure stands apart from the Ideological and Strategic

---

116. These results are in accordance with the only other comparative empirical study of proposed measures of judicial case outcomes. Mirroring our results, Westerland's working paper finds that once properly specified, the median of the Court produces results in the direction predicted and at statistically significant levels, but with an inferior fit to the median of the coalition measure. *See* Westerland, *supra* note 44, at 32. Note that Westerland's study did not consider the mean of the majority measure or the Collegial measure.

measures. To begin, there is scant evidence of a correlation between the Collegial measure and median of the Court. In the All Cases analysis, there is no apparent correlation whatsoever; in the IP Cases, there is a small (0.21), but statistically significant (at the 0.05 level), correlation between the main Collegial measure and the median of the Court. In the All Cases data, the Collegial measure has a small statistically significant correlation with both variants of Strategic measure (-0.04 and -0.10); however, the effect is so close to zero that it is not substantively significant. Thus there is no statistically significant correlation between either permutation of the Collegial measure and the two variations of the Strategic measure in the IP Cases.[117]

Thus in answer to the first question, it follows that the choice between Collegial and the other measures will always be consequential. Given that the Collegial measure also bears no statistical or substantial relationship to the overall direction of the Court or with the other scores of case outcomes—either the traditional liberal-conservative or the Pro-IP variable—we make a preliminary conclusion here that it is the Collegial measure, and not the other measures and scores, that is off target. The doctrinal analysis in the following Part confirms this impression.[118]

Combined with our conclusion above that the Strategic measures are meaningfully different from, and superior to, the Ideological measure, our conclusion of the non-viability of the Collegial measures leads us to conclude that the Strategic measures are the best mechanism available to measure case outcomes. This brings us to the third question: Which of the two Strategic measures is preferable?

The results summarized in Tables 7 and 8 indicate that the two versions of the Strategic measure are highly correlated, at 0.86 in All Cases and 0.88 in IP Cases, and both with p-values of 0.00. This means that the two variations are extremely similar to one another. Nonetheless, there are meaningful differences between them, and there are numerous reasons to prefer one variant of the Strategic measure over the other, but they do not point uniformly in one direction.

One consideration is whether one variant has a higher correlation with the median of the Court. Neither variant of the Strategic measure perfectly captures the predictions of the Strategic model—both are close but imperfect proxies. The relevant imperfection causes a minor skew in each proxy away from the median of the Court. Thus the version that is more closely correlated with the Court median will be less skewed from the ideal of judicial behavior that the Strategic model captures.

As both Tables 7 and 8 indicate, the Strategic-Median measure has a higher

---

117. For completeness we note that, as expected, there is a substantive and significant correlation between the two different versions of the Collegial measure in the IP cases. *See supra* note 113.

118. *See infra* Part V.

correlation with the Ideological measure than does the Strategic-Mean.[119] Tests of significance between the two correlations for the Ideological measure with each Strategic measure confirmed that this difference is statistically significant at the 0.01 level. In the IP Cases, the difference between these two correlations is significant at the 0.05 level but only on a one-tailed test. The fact that the Strategic-Median measure is closer to the Court median suggests that it might be a less biased proxy. However, given the small difference between the two versions of the measure, there may be other reasons for preferring the Strategic-Mean measure.

One countervailing reason to prefer the Strategic-Mean to the Strategic-Median is that the former is easier to calculate in large data sets. Calculating the median of the majority becomes problematic in any even-sized majority because there is no Justice who is the median of the majority coalition, and the median would have to be calculated as the midpoint between the two Justices who sit at the center of the coalition.[120] For sophisticated empirical analysts, this difference is extremely minor; it may be more significant for less sophisticated users of case outcome measures because the median would have to be calculated for each case coalition, but we do not consider this factor determinative.

The second countervailing consideration is more significant. As shown in Part III, the Strategic-Mean measure appears to be much closer to a normal distribution than the alternative Strategic-Median measure.[121] Figure 9 provides a more detailed test of this difference. It illustrates two normal quantile plots demonstrating how each of the Strategic measures corresponds to a normal distribution. Figures 9A and 9B plot the quantiles of each variable against the quantiles of a normal distribution.[122] To the extent a plot is non-linear, it departs from a normal distribution. As is readily apparent, the Strategic-Mean measure conforms much closer to a normal distribution, especially in the core range between -2 and 2.

As such, while the Strategic-Median may more exactly capture the theory of the Strategic model, the Strategic-Mean may more accurately reflect the actual underlying data by more perfectly mapping how the Justices actually decide cases.

Both Strategic measures are highly correlated with the two external checks of case outcomes—the traditional liberal-conservative measure and the Pro-IP measure. Also, as we show below, both perform well in the doctrinal analysis. In addition, the two versions of the measure are highly correlated, so the

---

119. Using Fisher's r-to-z Transformation, we confirmed the statistical significance of this difference.

120. Hammond argues that this is a significant weakness of the median of the majority measure. Hammond, *supra* note 44, at 26. However, we think that he overstates the significance of this drawback.

121. *See supra* section III.A & fig. 2.

122. Quantiles are points taken at regular intervals from the cumulative distribution function of a random variable.
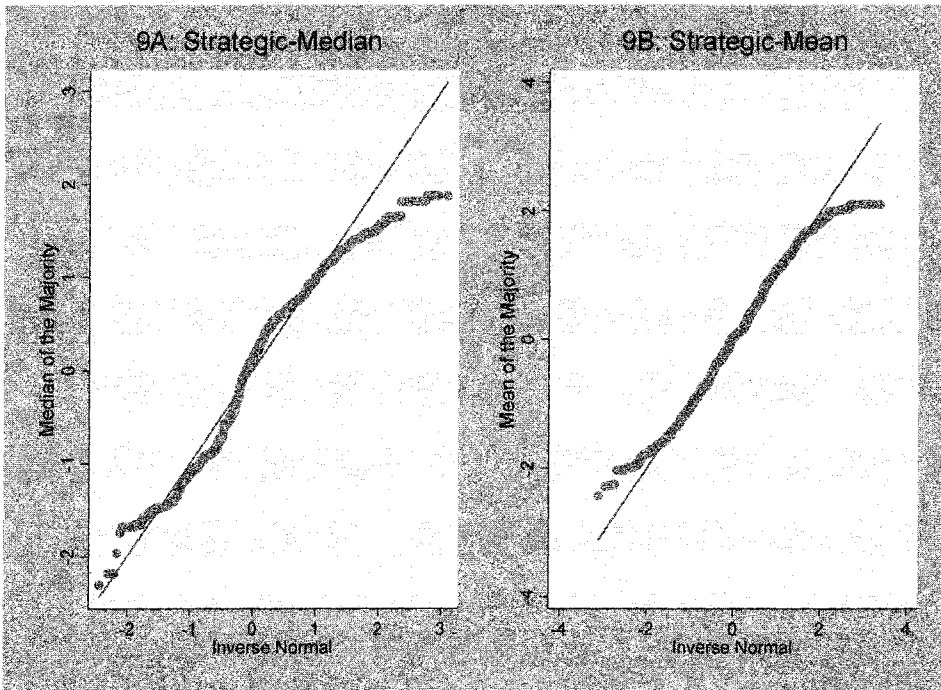
Figure 9. Distributional Diagnostics for Mean and Median of the Majority

difference between them is minimal. Ultimately, we prefer the Strategic-Mean measure because it is simpler and more closely resembles a normal distribution, but we consider that either version constitutes a viable, valid, and reliable measure for empirical legal analysis.

We now undertake an extensive doctrinal examination of the subset of IP Cases to check whether our aggregate impression holds up against a detailed case-by-case analysis of the relative merits of the three measures.

V. ASSESSING THE SCORES DOCTRINALLY

We have some confidence that the empirical investigation we have undertaken so far has proven to be illuminating, and possibly even convincing, for social scientists and those well versed in empirical methodologies. However, given that our aim is to convince lawyers and legal academics, as well, we now adopt an entirely different strategy: a case-by-case doctrinal discussion of the competing measures. Specifically, we undertake a detailed doctrinal analysis of ten of the Supreme Court's most influential IP cases decided since 1953. Naturally, this undertaking involves considerable subjectivity; nonetheless, we think that the patterns which emerge are sufficiently clear to allow us to make some significant general conclusions.

Like our statistical findings, in this examination of influential Supreme Court IP cases, the Collegial scores are often extremely hard to reconcile with a

Table 9: Scores for Key IP Cases

Case	Pro-IP	Liberal	Court Median	Collegial	Strategic-Mean	Strategic-Median
Diamond v. Chakrabarty*	1	0	0.15	−0.27	1.10	0.48
Sony v. Universal City Studios†	0	1	0.73	1.54	0.07	0.73
Harper & Row v. Nation†	1	0	0.66	−0.49	1.13	1.04
Community for Creative Non-Violence v. Reid*	1	1	1.01	2.59	−0.16	1.01
Two Pesos v. Taco Cabana‡	1	0	0.56	−2.08	0.63	0.56
Festo v. Shoketsu Kinzoku Kogyo Kabushiki‡	1	0	−0.20	−2.71	0.48	0.97
Eldred v. Ashcroft†	1	0	0.22	−1.72	0.56	0.52
MGM Studios v. Grokster†	1	0	0.08	−2.54	0.19	0.08
MedImmune v. Genentech‡	0	1	0.45	2.77	−0.12	−0.49
KSR International v. Teleflex†‡	0	1	0.45	4.29	0.37	0.45

† = Top ten in case citations
‡ = Top ten in law review citations
* Additional case drawn from either the top twenty in case citations or the top twenty in law review citations

doctrinal understanding of the impact of each case. Also, although the Ideological scores generally provide a plausible characterization of each case, the Strategic scores typically more closely reflect the substance of the decision. In short, consistent with our empirical analysis, we find in our doctrinal analysis that both the Strategic and Ideological scores are plausible, whereas the Collegial scores simply are not. We also find that, on average, the Strategic measures provide the most reliable scale of case outcomes.

A. CASE SELECTION

We initially selected twenty-two cases with a view to their long-term importance as measured in citation impact in law review articles and subsequent judicial decisions. We selected these cases based on two objective criteria:

average rate of citation in federal and state court cases and average rate of citation in law reviews. We then narrowed that list to ten illustrative cases for the purposes of discussion.[123]

Our selected cases are listed in Table 9, which shows the Jacobi score for each case, as well as the categorization of each case as Pro-IP (where a 1 indicates finding in favor of the IP claimant and a 0 indicates finding against the IP claimant) and as liberal-conservative (where 1 indicates a liberal outcome on the Spaeth coding and a 0 indicates a conservative outcome).

We now undertake a detailed analysis of each case, preceded by a table summation of the related IP area, the division on the Court over its determination, its citation rates, and the various scores applicable to the case. The Justices hearing the case are listed in order of their Martin-Quinn ideological scores, with the dissenting Justices italicized.

B. DOCTRINAL ASSESSMENTS

The issue before the Court in *Diamond v. Chakrabarty* was whether a living organism—in this case a genetically engineered petroleum-consuming bacterium—constitutes patentable subject matter under section 101 of the Patent Act.[124] The *Chakrabarty* Court voted five to four to overrule the initial decision of the United States Patent and Trademark Office Board of Appeals, which had held "that § 101 was not intended to cover living things such as . . . laboratory created micro-organisms."[125] A majority consisting of Chief Justice Burger and Justices Stewart, Blackmun, Rehnquist, and Stevens held that patentable subject

Diamond v. Chakrabarty, 447 U.S. 303 (1980)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Rev. citations
Patent	Yes	No	5/4	117	1218
Scores	Court Median	Collegial (Liberal)	Collegial (Pro-IP)	Strategic-Mean	Strategic-Median
	0.15	−0.27	−0.27	1.10	0.48
Justices	*Marshall*, *Brennan*, Stevens, Blackmun, *White*, Stewart, *Powell*, Burger, Rehnquist				

---

123. This second step is admittedly subjective; however, the complete analysis of all twenty-two cases is available in an on-line appendix to this Article. *See* Tonja Jacobi & Matthew Sag, Taking the Measure of Ideology: Empirically Measuring Supreme Court Cases: On-Line Supplement (unpublished manuscript), http://www.matthewsag.net/files/A%20Doctrinal%20Review%20of%2022%20Leading%20IP%20Cases.pdf.
124. Diamond v. Chakrabarty, 447 U.S. 303, 305 (1980).
125. *Id.* at 306.

matter should be broadly construed, extending to "anything under the sun that is made by man."[126] The majority held that the patent owner's micro-organism constituted a "manufacture" or a "composition of matter" within the meaning of the statute and thus "qualifie[d] as patentable subject matter."[127]

The significance of *Chakrabarty* can hardly be overstated: the Court's decision to expand the scope of patentable subject matter to include genetically engineered bacteria, and living organisms more generally, "jump-started the fledgling biotechnology industry" in the United States.[128] Moreover, *Chakrabarty* laid the foundation for an expansion of patentable subject matter in a multitude of areas including computer software and business methods.[129] *Chakrabarty* is an unambiguously pro-IP decision in that it created a far more favorable environment for patent owners generally, in addition to being a significant victory for the individual patent owner before the Court. Accordingly, SJS's coding of this case as expanding IP rights (Pro-IP = 1) is borne out by a substantive analysis of the decision.

Spaeth codes this case as conservative (Lib = 0), presumably on the basis that the outcome restricted competition.[130] *Chakrabarty* largely reflects the ideological composition of the Court at the time: the majority is conservative, with the exception of Justices Blackmun and Stevens who were each only mildly liberal at that time, and the minority is liberal, with the exception of Justice Powell.[131] The Ideological score of 0.15 appears to understate the strength of the decision. The score generated by the Collegial measure, −0.27, appears puzzling in view of a substantive review of the decision. On this metric, *Chakrabarty* would be a neutral or slightly liberal decision—an assessment which is simply unsustainable in light of the outcome of the case, the sweeping language invoked by the majority, and the long-term effect of the decision. The Strategic-Mean score of 1.10 comes closest to capturing *Chakrabarty*'s strong

---

126. *Id.* at 309 (quoting S. REP. No. 82-1979, at 5 (1952); H.R. REP. No. 82-1923, at 6 (1952)).

127. *Chakrabarty*, 447 U.S. at 309. In contrast to the majority's expansive reading of the statute, the dissent—Justices Brennan, White, Marshall, and Powell—argued that

the Court's decision does not follow the unavoidable implications of the statute. Rather, it extends the patent system to cover living material even though Congress plainly has legislated in the belief that § 101 does not encompass living organisms. It is the role of Congress, not this Court, to broaden or narrow the reach of the patent laws. This is especially true where, as here, the composition sought to be patented uniquely implicates matters of public concern.

Id. at 321–22 (Brennan, J., dissenting).

128. *See* Margo A. Bagley, *Academic Discourse and Proprietary Rights: Putting Patents in Their Proper Place*, 47 B.C. L. REV. 217, 235 (2006); *see also* John M. Golden, *Biotechnology, Technology Policy, and Patentability: Natural Products and Invention in the American System*, 50 EMORY L.J. 101, 125 (2001) (arguing that *Chakrabarty* set the stage "for a decade of aggressive expansion of biotechnology patenting").

129. *See* Diamond v. Diehr, 450 U.S. 175 (1981); State St. Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368 (Fed. Cir. 1998); *In re* Alappat, 33 F.3d 1526 (Fed. Cir. 1994).

130. The Spaeth Database codes the primary issue in this case as "Patent" under the general issue of "Economic Activity." Spaeth, Spaeth Database, *supra* note 19.

131. These assessments are based on the Martin-Quinn Scores. *See* Martin & Quinn, *supra* note 7.

pro-property and implicitly conservative orientation.[132]

The seminal *Sony Corp. of America v. Universal City Studios, Inc.* case addresses two distinct issues: first, the application of the Copyright Act to private acts of copying; and second, the potential scope of liability for manufacturers of copying equipment capable of both lawful and unlawful uses.[133] Sony manufactured and sold video cassette recorders (the Sony Betamax) to the public. As the video cassette recorder became more popular, it became more common for members of the public to record broadcast television programming for later use.[134] A group of copyright owners who objected to this practice sought to hold Sony liable under the Copyright Act for the alleged acts of infringement by Betamax users.[135]

Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417 (1984)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Rev. citations
Copyright	No	Yes	5/4	577	2226
Scores	Court Median	Collegial (Liberal)	Collegial (Pro-IP)	Strategic-Mean	Strategic-Median
	0.74	1.54	1.54	0.08	0.74
Justices	Marshall, Brennan, Stevens, Blackmun, White, Powell, Burger, O'Connor, Rehnquist				

Balancing the interests of copyright owners against the interests of legitimate manufacturers and non-infringing members of the public, the majority of the Supreme Court held that the sale of "copying equipment . . . does not constitute contributory infringement if the product . . . is capable of substantial non-infringing uses."[136] The majority further held that the Sony Betamax was capable of a substantial non-infringing use because private, non-commercial time shifting constituted a fair use.[137] The majority's finding of fair use rested primarily on the non-commercial nature of time shifting and on the failure of the copyright owners to demonstrate any meaningful likelihood of harm to the potential market for their copyrighted works.[138]

Sony is arguably the Supreme Court's most significant copyright decision of the last fifty-five years. It creates an important safe harbor for technology

---

132. The Strategic-Median measure lies between the two already discussed, yielding a score of 0.48.
133. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 420 (1984).
134. *Id.* at 422–23.
135. *Id.* at 420.
136. *Id.* at 442.
137. *Id.* at 442–47.
138. *Id.* at 448–49, 450–51, 454–55.

developers by protecting them from claims of copyright infringement based on the mere fact that, in the hands of the public, their products are capable of infringing the rights of copyright owners.[139] *Sony* is also a significant benchmark in developing a broad view of the application of fair use to private non-commercial conduct.[140] This has become particularly significant in light of the personal computer and Internet revolutions, which have drastically increased the significance of private non-commercial copying.[141]

The *Sony* Court's simultaneous limitation of the universe of activity that might constitute copyright infringement and of the potential indirect liability of technology developers for downstream acts of infringement meant that *Sony* clearly reduced the legal rights of copyright owners compared to the status quo of the Court of Appeals decision.[142] The SJS coding of this case as limiting IP rights (Pro-IP = 0) is entirely congruent with this substantive account of the decision.

Spaeth codes *Sony* as liberal (Lib = 1), presumably because the case outcome favored competition.[143] In contrast, the Ideological score for *Sony*, 0.74, indicates that this is a mildly conservative decision. Interestingly, in spite of the fact that *Sony* resulted in a 5-4 split among the Justices, the "disordered" nature of this division resulted in a Strategic-Median score that was the same as the Ideological score.[144] If IP is the most salient issue in the case, this moderately conservative Strategic-Median score is difficult to reconcile with the fact that the majority ruling both enlarged the scope of fair use and shrank the scope of indirect liability for copyright infringement.[145] The score suggested by the Collegial measure, 1.54, implies that *Sony* was a very conservative case. Thus, the Collegial measure is even more difficult to reconcile with a substantive examination of the *Sony* decision, for the same reasons.

---

139. The question of exactly what constitutes a substantial non-infringing use has been litigated in a number of circuits, but the Supreme Court has declined to further expand upon the meaning of the concept. *See, e.g.*, Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 934 (2005). The Supreme Court's decision in *Grokster* is reviewed below. *See infra* notes 219–26 and accompanying text.

140. Samuelson, *supra* note 22, at 1850 (arguing that without the *Sony* safe harbor, a host of technologies that facilitate private or personal use copying might have never become widely available). *But see* Jessica Litman, *The* Sony *Paradox*, 55 CASE W. RES. L. REV. 917, 951–52 (2005) (arguing that *Sony* did little to effectively shield subsequent technologies).

141. *See* GOLDSTEIN, *supra* note 79, at 106.

142. The irony of the *Sony* decision is that in rejecting the copyright owners' claims, the decision served these same owners' long-term interests by facilitating the growth of the video rental market. *See, e.g.*, Matthew Sag, *Beyond Abstraction: The Law and Economics of Copyright Scope and Doctrinal Efficiency*, 81 TUL. L. REV. 187, 240–41 (2006).

143. The Spaeth Database codes the primary issue in this case as "Copyright" under the general issue of "Economic Activity." Spaeth, Spaeth Database, *supra* note 19.

144. *See* Paul H. Edelman et al., *Measuring Deviations from Expected Voting Patterns on Collegial Courts*, 5 J. EMPIRICAL LEGAL STUD. 819, 833–36 & tbl.3 (2008) (citing *Sony* as one of the many examples of disordered voting—that is, cases in which the Justices' votes bear little or no resemblance to the standard unidimensional ideological spectrum).

145. *See* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984).

The Strategic-Mean score, 0.08, is the most intuitively plausible of the three Jacobi measures in this case. A case outcome score of 0.08 suggests that the decision is essentially neutral. That is, it does not really alter the rights of IP owners in any significant fashion, and it is not especially liberal or conservative. While this is not the predominant view of the *Sony* decision within the IP academy,[146] it is not an unreasonable position given the majority's explicit attempt to balance the interests of copyright owners, legitimate manufacturers, and the general public.[147] The neutral case outcome score suggested by the Strategic-Mean measure also comports with the disordered nature of the voting in this case.

Harper & Row, Publishers, Inc. v. Nation Enterprises, 471 U.S. 539 (1985)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Review citations
Copyright	Yes	No	6/3	714	1707
Scores	**Court Median**	**Collegial (Liberal)**	**Collegial (Pro-IP)**	**Strategic-Mean**	**Strategic-Median**
	0.66	−0.49	−0.49	1.13	1.04
Justices	*Marshall*, *Brennan*, Stevens, Blackmun, Powell, *White*, O'Connor, Burger, Rehnquist				

The Supreme Court granted certiorari in *Harper & Row, Publishers, Inc. v. Nation Enterprises* to determine whether the unauthorized quotation of a public figure's forthcoming manuscript in a news magazine amounted to fair use under the Copyright Act.[148] In 1979, President Gerald Ford's Memoir, *A Time To Heal*, was contracted for publication by Harper & Row, who had in turn agreed to provide *Time* magazine with the exclusive rights to print prepublication excerpts of the memoir.[149] Naturally enough, *Time*'s primary interest related to those aspects of the manuscript pertaining to President Nixon's resignation and Ford's decision to pardon Nixon for any offenses he may have committed in relation to the Watergate conspiracy.[150] However, *Time*'s exclusive was pre-empted when *The Nation*, a magazine devoted in large part to political commentary and news, obtained a copy of the Ford manuscript and published its own 2250-word article concerning the Nixon pardon.[151] *The Nation*'s article relied on a number of direct quotes from the original manuscript, amounting to about

---

146. *See* Litman, *supra* note 140, at 918 & nn.3 & 6 (discussing the various views on the effect of *Sony*).
147. *Sony*, 464 U.S. at 454–55.
148. Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 541–42 (1985).
149. *Id.* at 542.
150. *Id.* at 542–43.
151. *Id.* at 543.

300 words in total.[152] The appearance of *The Nation*'s article caused *Time* to cancel its planned publication.[153]

The majority of the Supreme Court held that in light of *The Nation*'s intended commercial purpose and the fact that it supplanted the copyright owner's right to control first publication, the defendant's magazine article was not a fair use of the manuscript.[154] The majority discounted the brevity of the quotations copied by *The Nation* in light of their central importance in the memoir and the adverse impact of the article on the contract with *Time*.[155] In addition, the majority held that there was no basis in the First Amendment for a rule giving the fair use doctrine broader scope in cases involving a public figure's manuscript, rejecting the dissent's argument that the purpose of the use—relating a historical event of undoubted significance in a non-fictional biography—strongly favored the fair use defense.[156]

It is difficult to evaluate the long-term significance of *Harper & Row*. The Court's holding strikes many commentators as idiosyncratic.[157] This case is still frequently cited for the proposition that the fourth fair use factor, the effect on the market, is the most important one.[158] And yet this aspect of the decision appears to have been disavowed by the more recent Supreme Court case of *Campbell v. Acuff Rose Music, Inc.*[159] The Supreme Court's emphasis on the unpublished nature of the work inspired a series of rather extreme decisions in the same vein in the Second Circuit, leading Congress to amend section 107 by way of correction.[160]

The SJS coding of *Harper & Row* as expanding, rather than contracting, IP rights (Pro-IP = 1) is clearly consistent with the substance of the majority decision. The majority in *Harper & Row* takes an extremely broad view of the prerogatives of the copyright owner, imposes the loosest imaginable threshold for substantial similarity, and narrows significantly the application of the fair use doctrine.[161] Spaeth codes this case as conservative in orientation (Lib = 0),[162] which is also consistent with this analysis.

The outcome scores for the Ideological measure, 0.66, the Strategic-Median

152. *Id.* at 544–45.
153. *Id.* at 543.
154. *Id.* at 569.
155. *Id.* at 564–69.
156. *Id.* at 555–60; *id.* at 579 (Brennan, J., dissenting).
157. *See, e.g.*, 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.05[A][5], at 13.202.2 (2008) (arguing that *Harper & Row* "demonstrates the almost infinite elasticity of each of the four factors [of the fair use doctrine], and their concomitant inability to resolve difficult questions").
158. *See, e.g.*, Bond v. Blum, 317 F.3d 385, 396 (4th Cir. 2003).
159. Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 594 (1994).
160. *See* Matthew Sag, *God in the Machine: A New Structural Analysis of Copyright's Fair Use Doctrine*, 11 MICH. TELECOMM. & TECH. L. REV. 381, 389–90 (2005).
161. Robin Feingold, Note, *When "Fair is Foul": A Narrow Reading of the Fair Use Doctrine in Harper & Row, Publishers, Inc. v. Nation Enterprises*, 72 CORNELL L. REV. 218, 234 (1986).
162. The Spaeth Database codes the primary issue in this case as "Copyright" under the general issue of "Economic Activity." Spaeth, Spaeth Database, *supra* note 19.

measure, 1.04, and the Strategic-Mean measure, 1.13, each depict *Harper &
Row* as either a moderately conservative decision or a solidly conservative
decision. In contrast, the Collegial score for *Harper & Row* is −0.49, which,
contrary to the analysis above, implies that the majority's decision was actually
moderately liberal. It is very hard to conceive of *Harper & Row* as a liberal
decision applying any of the Spaeth underdog characterizations or in terms of
its IP implications. The incongruity of the Collegial score is only tempered by
its small value. The two Strategic scores are the most persuasive summary of
the case.

Community for Creative Non-Violence v. Reid, 490 U.S. 730 (1989)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Review citations
Copyright	Yes	Yes	9/0	752	546
Scores	Court Median	Collegial (Liberal)	Collegial (Pro-IP)	Strategic-Mean	Strategic-Median
	1.01	2.59	−4.32	0.16	1.01
Justices	Marshall, Brennan, Blackmun, Stevens, White, Kennedy, O'Connor, Scalia, Rehnquist				

The Supreme Court granted certiorari in *Community for Creative Non-
Violence v. Reid* to resolve a circuit split as to the correct interpretation of the
"work for hire" provisions of the Copyright Act of 1976.[163] The specific
question was whether, under the statutory reformulation of the "work for hire"
rule, copyright in a commissioned piece of sculpture belonged to the artist or
the non-profit organization that hired him.[164] In 1985, the Community for
Creative Non-Violence (CCNV), a non-profit organization dedicated to eliminat-
ing homelessness, entered into an oral agreement with Reid, a sculptor, to
produce a statue dramatizing the plight of the homeless.[165] Upon completion of
the sculpture, Reid claimed to own the copyright in the sculpture by virtue of
his authorship, and CCNV claimed copyright ownership by virtue of section
101 of the Copyright Act.[166]

Interpreting the statutory language, "a work prepared by an employee within
the scope of his or her employment,"[167] the Supreme Court held that the term
"employee" carries its common law meaning.[168] In doing so, the Court rejected

---

163. Cmty. for Creative Non-Violence v. Reid, 490 U.S. 730, 732 (1989).
164. *Id.*
165. *Id.* at 733.
166. *Id.* at 735–36.
167. *Id.* at 838 (citing Copyright Act of 1976, 17 U.S.C. § 101 (2006)).
168. *Id.* at 740.

the argument that work for hire status should be resolved in reference to the hiring party's right to control or actual control of the contracting party.[169] Applying the common law meaning of employee, the Court held that Reid was not an employee, but an independent contractor, given that he was hired only for one specific task for a limited time, worked in his studio with his own materials, and was a skilled sculptor.[170]

CCNV is one of only two cases in the IP dataset that required the Court to choose between conflicting claims of IP protection—in this case, the conflict was between the sculptor's claim of copyright ownership based on authorship and CCNV's claim of copyright ownership based on the "work for hire" doctrine.[171] SJS coded the artist in *CCNV* as the IP owner because he was the original author of the work in question, which makes the case a decision in favor of IP rights (Pro-IP = 1).

The Ideological score of the *CCNV* case was 1.01, a score which is consistent with the SJS Pro-IP coding, although it is inconsistent with Spaeth's coding of the case as a liberal decision (Lib = 1).[172] However, a substantive review of this case illustrates that Pro-IP might be a more reliable indicator of a conservative decision here than the traditional Spaeth coding. Spaeth presumably codes *CCNV* as a liberal decision because it is "anti-employer" "in the context of issues pertaining to . . . economic activity."[173] We take no issue with the Spaeth coding as a general guideline; however, it is erroneous to conclude that *CCNV* is a liberal decision because it favors the employee over the employer, given that the Court ruled that Reid was in fact not an employee at all.[174] The decision does not, in fact, favor employees over employers; it favors traditional common law independent contractors and places them in a privileged position vis-à-vis regular employees. The Strategic-Mean score of 0.16 also indicates that *CCNV* is a conservative decision, but one that is very close to neutral. Given the nature of the case—resolving a circuit split on a narrow question of statutory interpretation—there would appear to be ample justification for regarding this as a fairly neutral decision.

The conflict between the Spaeth coding and the Pro-IP coding in this case offers two contending case outcome scores under the Collegial measure. If Spaeth is correct that *CCNV* is a liberal decision, then the Collegial measure dictates a score equal to the ideological score of the most conservative Justice to sign on to the decision: in this case, Justice Rehnquist, with an ideology score of 2.59.[175] On the other hand, if Pro-IP is a better indicator, then the alternative

---

169. *Id.* at 742.
170. *Id.* at 751–52.
171. *Id.* at 735. The other case is *New York Times Co. v. Tasini*, 533 U.S. 483 (2001).
172. The Spaeth Database codes the primary issue in this case as "Copyright" under the general issue of "Economic Activity." Spaeth, Spaeth Database, *supra* note 19.
173. Spaeth, Spaeth Codebook, *supra* note 19, at 54.
174. *Cmty. for Creative Non-Violence*, 490 U.S. at 752.
175. Martin & Quinn, *supra* note 7.

Collegial measure dictates the case outcome score equal to the ideology of the Justice most skeptical of IP: in this case, Justice Marshall with an ideology score of −4.32.[176] Although our doctrinal analysis of the case presented above suggests that *CCNV* is indeed conservative, the degree of conservatism suggested by a score of 2.59 is difficult to reconcile with the substance of the decision. On the other hand, the alternative Collegial score of −4.32 places *CCNV* at the extreme end of an anti-IP-pro-IP continuum, which is even harder to reconcile with the facts.

Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763 (1992)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Review citations
Trademark	Yes	No	9/0	1075	626
Scores	Court Median	Collegial (Liberal)	Collegial (Pro-IP)	Strategic-Mean	Strategic-Median
	0.56	−2.08	−2.08	0.63	0.56
Justices	Stevens, Blackmun, White, O'Connor, Souter, Kennedy, Rehnquist, Scalia, Thomas				

The Supreme Court granted certiorari in *Two Pesos, Inc. v. Taco Cabana, Inc.* to resolve a conflict among the circuits as to the scope of trade dress protection in the absence of a federal registration.[177] The specific question in *Two Pesos* was whether the trade dress of a restaurant could be protected under the unfair competition provision of the Trademark Act based on a finding that the appearance of the restaurant was inherently distinctive, but without any proof that the general public had actually come to associate that unique appearance with the plaintiff (that is, without proof that the trade dress had "secondary meaning").[178]

Taco Cabana was a restaurant chain originating in San Antonio, Texas that had adopted a Mexican theme as its trade dress, consisting of a festive eating atmosphere with a combination of interior dining and patio areas decorated with artifacts, bright colors, paintings, and murals.[179] Taco Cabana accused Two Pesos of copying its restaurant theme and thus engaging in unfair competition.[180] The district court and the court of appeals each held for Taco Cabana based on the jury's finding that that Taco Cabana's trade dress was inherently

---

176. *Id.*

177. Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 767 (1992). "The 'trade dress' of a product is essentially its total image and overall appearance." *Id.* at 765 n.1.

178. *Id.* at 766 & n.4.

179. *Id.* at 765.

180. *Id.* at 765–66.

distinctive.[181] Based on the jury's conclusion, both courts rejected Two Pesos' argument that the lack of a secondary meaning precluded a finding of inherent distinctiveness.[182] The Supreme Court agreed with the lower courts and held "that proof of secondary meaning [was] not required to prevail on a claim under [the Trademark Act] where the trade dress at issue [was] inherently distinctive."[183] Specifically, the Court argued that there was no reason to apply a general requirement of secondary meaning to unregistered trade dress because it would not be required for a registered trademark.[184]

Two Pesos is significant in trademark jurisprudence for confirming that "the general principles qualifying a mark for registration under section 2 of the Lanham Act are for the most part applicable in determining whether an unregistered mark is entitled to protection under section 43(a)."[185] However, beyond this general principle, the significance of *Two Pesos* is open to question. In 2000, the Supreme Court revisited the issue of trade dress and all but confined *Two Pesos* to its own facts. In *Wal-Mart Stores, Inc. v. Samara Bros.*, Justice Scalia artfully explained that the Court recognizes inherently distinctive trade dress that is equivalent to product packaging, but that trade dress for product design or product features can never be inherently distinctive as a matter of law.[186] Accordingly, any claim for trade dress protection with respect to a product feature must be accompanied by proof of secondary meaning.[187] Justice Scalia also observed in *Wal-Mart* that where the classification between product design and packaging is uncertain, courts should err on the side of caution and classify the trade dress as product design.[188] Thus, *Wal-Mart* effectively undermines the Supreme Court's decision in *Two Pesos*.[189]

At the time of the decision, however, *Two Pesos* substantially increased the scope of trademark protection for businesses that had adopted a distinctive trade dress, but were nonetheless unable to establish secondary meaning. This substantive reading of the case is consistent with SJS's coding of *Two Pesos* as expanding IP rights (Pro-IP = 1). Spaeth codes this case as conservative (Lib = 0), either on the basis that the decision is anti-competition or that the decision was regarded as pro-"large business" over "small business" in the general issue of "economic activity."[190] Although if the latter is the rationale of the Spaeth

---

181. *Id.* at 766.
182. *Id.* at 766–67.
183. *Id.* at 776.
184. *Id.* at 770.
185. *Id.* at 768 (citations omitted).
186. Wal-Mart Stores, Inc. v. Samara Bros., 529 U.S. 205, 212–13 (2000).
187. *Id.* at 216.
188. *Id.* at 215.
189. However, Justice Scalia reconciles *Wal-Mart* with *Two Pesos* by relegating the trade dress in the latter to the status of "some *tertium quid* that is akin to product packaging and has no bearing on the present case." *Id.* at 215.
190. The Spaeth Database codes the primary issue in this case as "Trademark" under the general issue of "Economic Activity." Spaeth, Spaeth Database, *supra* note 19.

coding, it directly conflicts with the Supreme Court's own conception of what it was achieving—the Court was motivated, at least in part, by the concern that a requirement of secondary meaning "could have anticompetitive effects, creating particular burdens on the startup of small companies."[191]

The Ideological score in this case, 0.56, suggests that *Two Pesos* is a moderately conservative decision. The Strategic-Mean score, 0.63, is essentially no different. In contrast, adopting the Collegial measure in this case yields a score of −2.08. This large negative value implies that *Two Pesos* is an extremely liberal decision. The correct ideological classification of a decision such as *Two Pesos* will always be subject to debate: the case concerns the competing interests of two restaurant chains, and there is no obvious reason why one should be regarded as a liberal underdog or the other a conservative darling. Although one chain is larger than another, this does not seem to have been influential in the Court's decision. Accordingly, it is difficult to sustain an ideological classification of the case based on party status alone. What is clear about the case is that it is a decision in favor of broader intellectual property protection and so provides a sounder basis for identifying the decision as conservative. Therefore the conclusion dictated by the Collegial measure—that this case is extremely liberal—is difficult to sustain.

Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722 (2002)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Review citations
Patent	Yes	No	9/0	398	353
Scores	Court Median	Collegial (Liberal)	Collegial (Pro-IP)	Strategic-Mean	Strategic-Median
	−0.20	−2.71	−2.71	0.25	−0.20
Justices	Stevens, Ginsburg, Souter, Breyer, O'Connor, Kennedy, Rehnquist, Scalia, Thomas				

In patent law, the doctrine of equivalents provides that a patent can be found to be infringed even if the defendant's product falls outside the literal scope of the patent claims, so long as its features are "equivalent" to the patent claims.[192] The Supreme Court confirmed the continued viability of the doctrine of equivalents in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.* in 1997.[193] In *Festo*, the Supreme Court returned to the doctrine of equivalents and its interaction with another important concept in patent law, the rule of "prosecu-

---

191. Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 775 (1992).
192. *See* Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 727 (2002).
193. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17 (1997).

tion history estoppel."[194] Simply put, prosecution history estoppel prevents a patentee from obtaining the benefits of equivalents to the literal terms of her patent claim if she is deemed to have forgone those equivalents by amending the patent application in the course of prosecution through the patent office.[195] In substance, the doctrine of equivalents expands a patent's scope whereas prosecution history estoppel confines it.

In *Festo*, the patentee claimed a magnetic rodless cylinder (a piston-driven device that relies on magnets to move objects in a conveying system) with two sealing rings, each with one lip.[196] The accused infringer's device only had one sealing ring, but this ring featured a two-way lip. The patent owner argued that this difference was sufficiently immaterial as to fall within the scope of the patent under the doctrine of equivalents.[197] The Federal Circuit held against the patent owner on the basis that, by narrowing its claim during the course of prosecution, the patentee had surrendered all equivalents to the amended claim element.[198]

The Supreme Court agreed with the Federal Circuit that prosecution history estoppel should not be reserved solely for amendments intended to avoid the prior art, but rather could be applied to any narrowing amendment made to satisfy any requirement of the Patent Act.[199] However, the Supreme Court vacated and remanded the decision of the Federal Circuit because of that court's expansion of the effect of prosecution history estoppel.[200] Departing from its own precedent, the majority of the Federal Circuit had concluded that an amendment giving rise to estoppel should function as an absolute bar to every equivalent of the amended claim.[201] The Federal Circuit had formed that view based on its experience that a flexible bar rule was uncertain and unworkable.[202] The Supreme Court rejected the application of a per se rule in this context, believing that such an approach was "inconsistent with the purpose of applying the estoppel in the first place."[203] The Supreme Court saw "no reason why a narrowing amendment should be deemed to relinquish equivalents [that were] unforeseeable at the time of the amendment and beyond a fair interpretation of what was surrendered."[204]

Compared to the status quo of the Federal Circuit's decision, the Supreme Court's ruling in *Festo* expands the scope of patent protection by limiting the preclusive effect

---

194. *Festo Corp.*, 535 U.S. at 733.
195. *Id.* at 727.
196. *Id.* at 728.
197. *Id.* at 729.
198. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558, 564 (Fed. Cir. 2000) (en banc).
199. *Festo Corp.*, 535 U.S. at 735–37.
200. *Id.* at 737–38.
201. *Festo Corp.*, 234 F.3d at 574–75.
202. *Id.*
203. *Festo Corp.*, 535 U.S. at 737–38.
204. *Id.* at 738.

of prosecution history estoppel in certain circumstances.[205] This substantive analysis is consistent with SJS's coding as expanding IP rights (Pro-IP = 1).

Spaeth codes the *Festo* decision as conservative (Lib = 0), presumably on the basis that it is "anti-competition," given that the patent holder and the defendant were rivals in the same industry.[206] In contrast to this assessment, the Ideological score, −0.20, indicates that the substance of the decision is somewhere between neutral and mildly liberal. Adopting the Collegial measure in *Festo* yields a score of −2.71, which indicates that the decision is very strongly liberal. The Strategic-Mean measure yields a score of 0.25, indicating that the decision is somewhere between neutral and mildly conservative, consistent with both SJS and Spaeth. The modest values generated by the Ideological and the Strategic measures are easily reconcilable with the incremental nature of the decision. The Collegial measure outcome, which depicts the case as very strongly liberal, appears to be incongruous.

Eldred v. Ashcroft, 537 U.S. 186 (2003)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Review citations
Copyright	Yes	No	7/2	64	831
Scores	Court Median	Collegial (Liberal)	Collegial (Pro-IP)	Strategic-Mean	Strategic-Median
	0.22	−1.72	−1.72	0.84	0.82
Justices	*Stevens*, Ginsburg, Souter, *Breyer*, O'Connor, Kennedy, Rehnquist, Scalia, Thomas				

In *Eldred v. Ashcroft*, the Supreme Court addressed a challenge to the constitutionality of the 1998 Copyright Term Extension Act (CTEA).[207] Broadly speaking, the effect of the CTEA was to expand the duration of copyrights by twenty years: most commonly, from the life of the author plus fifty years to the life of the author plus seventy years.[208] The petitioners argued that the CTEA's extension of the term of protection for existing copyrights exceeded Congress's power under the Copyright Clause of the U.S. Constitution.[209]

The majority of the Supreme Court rejected various challenges to the constitutionality of the CTEA. On the question of rationality, the majority noted that

---

205. *See id.*

206. The Spaeth Database codes the primary issue in this case as "Patent" under the general issue of "Economic Activity." Spaeth, Spaeth Database, *supra* note 19.

207. Eldred v. Ashcroft, 537 U.S. 186, 193–94 (2003).

208. 17 U.S.C. § 302(a) (2006).

209. U.S. CONST. art. I, § 8, cl. 8. (providing that Congress shall have the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors . . . the exclusive Right to their respective Writings").

Congress had retroactively expanded the term of copyright protection in the past and that Congress was entitled to substantial deference on the exercise of its legislative authority conferred by the Copyright Clause.[210] The majority agreed with the government that American authors would benefit from the term extension because the benefits of a longer term provided in some European Union nations were conditioned on reciprocity.[211] The majority also noted that a longer copyright term might encourage "copyright holders to invest in the restoration and public distribution of their works."[212]

Noting that life plus seventy was still a finite period, the majority rejected the petitioners' argument that the term extension contravened the "limited Times" restriction of the Copyright Clause.[213] The majority also disagreed with the contention that a retroactive extension of copyright duration does nothing to "promote the Progress of Science" as contemplated by the preambulary language of the Copyright Clause.[214] The Court declared that Congress, not the courts, is responsible for deciding how to achieve the Copyright Clause's objectives and that the same justifications that provided the rational basis for the legislation also satisfied this requirement.[215]

Finally, the Court rejected the contention that the First Amendment required copyright legislation to be subject to the same heightened standard of judicial review as content-neutral regulation of speech.[216] The majority reasoned that copyright played an important role in promoting the creation and publication of free expression and that copyright law contained sufficient built-in First Amendment accommodations, such as the distinction between ideas and their expression, and the fair use doctrine.[217]

The decision of the majority in *Eldred* allows Congress to expand the scope of copyright and patent protection with only the most cursory judicial scrutiny. This deference to Congress and the pro-IP nature of the legislation under consideration is consistent with the SJS coding of *Eldred* as expanding IP rights (Pro-IP = 1). Spaeth categorizes this case as pertaining to copyright, within the broader rubric of economic activity, and as conservative (Lib = 0), again presumably on the basis that it is "anti-competition."[218] Viewed in constitu-

---

210. *Eldred*, 537 U.S. at 218.

211. *Id.* at 205–06. The Council of the European Communities had instructed EU members to enact a similar term extension. *Id.* at 205; *see also* Council Directive 93/98/EEC, art. 1(1), 1993 O.J. (L 290) 11 (EC).

212. *Eldred*, 537 U.S. at 207. *But see* Paul J. Heald, *Property Rights and the Efficient Exploitation of Copyrighted Works: An Empirical Analysis of Public Domain and Copyrighted Fiction Bestsellers*, 92 MINN. L. REV. 1031 (2008) (finding no evidence that works without owners will suffer from underexploitation).

213. *Eldred*, 537 U.S. at 199–204.

214. *Id.* at 210–14.

215. *Id.* at 212–13.

216. *Id.* at 218–21.

217. *Id.* at 219.

218. The Spaeth Database codes the primary issue in this case as "Copyright" under the general issue of "Economic Activity." Spaeth, Spaeth Database, *supra* note 19.

tional terms, *Eldred* is not a conservative decision within the liberal-conservative framework because it favors expansive federal power. However, the Supreme Court's deference to Congress in this case does not come at the expense of the power of the states, so the Court's broader interpretation of federal power may be less salient to conservatives. The fact that the legislation challenged in *Eldred* expanded the scope of the IP protection also suggests that the decision is conservative in orientation.

The Ideological score in this case, 0.22, suggests that *Eldred* is a neutral to mildly conservative decision. The Strategic-Mean measure, however, suggests that the decision is significantly more conservative, with an outcome score of 0.84, which best fits the IP impact of the case, but not the constitutional element. At the other extreme, the Collegial measure yields a score of −1.72, indicating that *Eldred* should be regarded as a strongly liberal decision. We find this view implausible on IP grounds but not implausible on constitutional grounds.

Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913 (2005)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Review citations
Copyright	Yes	No	9/0*	121	421
Scores	**Court Median**	**Collegial (Liberal)**	**Collegial (Pro-IP)**	**Strategic-Mean**	**Strategic-Median**
	0.08	−2.54	−2.54	0.19	0.08
Justices	Stevens, Ginsburg, Souter, Breyer, O'Connor, Kennedy, Rehnquist, Scalia, Thomas				

* Note that the concurring opinions split 3/3.

The Supreme Court returned to the issue of a secondary liability for copyright infringement in the case of *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*[219] The defendants in *Grokster* were the makers of peer-to-peer file sharing software that was used commonly, but not exclusively, to illegally share copyrighted music on the Internet.[220] Rather than suing individual users, a group of copyright owners elected to sue the software distributors, alleging that the distributors were liable for copyright infringement because the software was intended to allow users to infringe copyright and had no legitimate commercial purpose.[221]

Both the district court and the Ninth Circuit Court of Appeals interpreted the Supreme Court's opinion in *Sony* as holding that distribution of a

---

219. Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913 (2005).
220. *Id.* at 919–20.
221. *Id.* at 920–21, 939–40.

commercial product that was capable of substantial non-infringing uses could not give rise to contributory liability for infringement unless the distributor had actual knowledge of specific instances of infringement and failed to act on that knowledge.[222] Although *Grokster* set the stage for a possible revision of the *Sony* safe harbor,[223] the case was determined on the alternative grounds of liability for "induced infringement." The Court concluded that the defendants had distributed their software "with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement," and were therefore liable for the resulting acts of infringement by third parties.[224] Although the question of the continuing relevance and appropriate interpretation of the *Sony* safe harbor for dual-use technologies was vigorously contested in two separate concurring opinions, the opinion of the Court as a whole expressly declined to address that issue.[225]

The Supreme Court's decision in *Grokster* provides copyright owners with a new theory of liability upon which to hold technology makers liable for the infringing acts of end-users. As such, the case merits the SJS coding as a decision in favor of intellectual property rights (Pro-IP = 1). Spaeth codes *Grokster* as a conservative decision (Lib = 0), again presumably on the basis that it is "anti-competition," but possibly because it holds against the "economic underdog" or because it is "pro-large business vis-à-vis small business."[226]

Both the Ideological and Strategic-Mean scores, 0.08 and 0.19, respectively, indicate that *Grokster* is an essentially neutral decision or, at most, mildly conservative. We consider these scores plausible, but potentially understating the conservative impact of the *Grokster* decision. In contrast, the Collegial score of −2.54 suggests that *Grokster* is a very strongly liberal decision, contrary to the SJS and Spaeth coding and to our doctrinal assessment here.

---

222. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984); *see also supra* notes 133–47 and accompanying text.

223. *See* Litman, *supra* note 140, at 919 ("The Court will almost certainly revisit its holding in *Sony* in the course of deciding *Grokster*.").

224. *Grokster*, 545 U.S. at 918–19.

225. *Id.* at 933–34; *see also id.* at 942–49 (Ginsburg, J., concurring); *id.* at 949–66 (Breyer, J., concurring).

226. The Spaeth Database codes the primary issue in this case as "Copyright" under the general issue of "Economic Activity." Spaeth, Spaeth Database, *supra* note 19.

APPENDIX

MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118 (2007)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Review citations
Patent	No	Yes	8/1	153	87
Scores	**Court Median**	**Collegial (Liberal)**	**Collegial (Pro-IP)**	**Strategic-Mean**	**Strategic-Median**
·	0.45	2.77	2.77	−0.12	−0.49
Justices	Stevens, Ginsburg, Souter, Breyer, Kennedy, Alito, Roberts, Scalia, *Thomas*				

In *MedImmune, Inc. v. Genentech, Inc.*, the Supreme Court addressed the scope of federal jurisdiction in patent cases in light of the Article III case and controversy limitation, as provided by the "actual controversy" requirement of the Declaratory Judgment Act.[227] The key question in the case was whether a patent licensee must terminate, or at least breach, its agreement before seeking a declaration that the underlying patent is "invalid, unenforceable, or not infringed."[228]

Genentech and MedImmune had entered into a patent license agreement covering certain Genentech patents.[229] When Genentech's patent application relating to "the coexpression of immunoglobulin chains in recombinant host cells" was subsequently approved by the patent office, Genentech informed MedImmune that it was obliged under the agreement to pay royalties in relation to one of its products not previously covered by the agreement.[230] Fearing the possibility of treble damages for willful infringement and the termination of the license agreement with respect to other products, MedImmune paid the royalties demanded by Genentech.[231] MedImmune nonetheless filed an action seeking a declaratory judgment that the newly issued patent was invalid and unenforceable.[232]

The district court dismissed MedImmune's declaratory judgment claims on the ground that there was no actual controversy, and thus no subject-matter jurisdiction, because MedImmune had paid the royalties and was otherwise in compliance with the licensing agreement.[233] The Federal Circuit affirmed, holding that a patent licensee in good standing cannot establish an Article III case or controversy with regard to the patent's validity, enforceability, or scope.[234]

In the Supreme Court, the majority held that federal jurisdiction extended to a

---

227. MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118, 120 (2007).
228. *Id.* at 120–21.
229. *Id.* at 121.
230. *Id.*
231. *Id.* at 122.
232. *Id.*
233. *Id.*
234. *Id.* (citing Gen-Probe, Inc. v. Vysis, Inc., 359 F.3d 1376, 1381 (2004)).

"nonrepudiating licensee" declaratory suit, at least in circumstances where the patent owner has implicitly or explicitly threatened to enforce the patent upon nonpayment of royalties and the threat would cause significant harm to the licensee's business.[235] The majority did not accept the Federal Circuit's view that no case or controversy existed, reasoning that given the high stakes involved and the genuine threat of enforcement, the plaintiff should not be required to "bet the farm, so to speak, by taking the violative action."[236]

The *MedImmune* decision exposes patent owners to declaratory judgment actions by non-repudiating licensees challenging the validity, enforceability, or scope of their patent rights.[237] As such, the decision is clearly hostile to the interests of patent owners and is appropriately classified in the SJS coding as limiting IP rights (Pro-IP = 0). Spaeth classifies *MedImmune* as a liberal decision (Lib = 1) because it finds in favor of jurisdiction.[238] The Ideological score in this case is 0.45, counter-intuitively indicating that this was a moderately conservative decision. The Collegial measure yields an outcome score of 2.77. This indicates that the majority's decision is extremely conservative, which is difficult to reconcile with the underlying facts or reasoning of the decision. In contrast, both the Strategic-Mean and Strategic-Median measures yield outcomes in the opposite direction. Although the Strategic-Median score, -0.49, is slightly clearer than the Strategic-Mean score, −0.12, both outcome scores indicate that *MedImmune* is a liberal decision. This conclusion is consistent with the Court's decision to provide for a broader scope of standing. It is also consistent with the IP-restricting nature of the decision.

KSR International Co. v. Teleflex Inc., 550 U.S. 398 (2007)

IP area	Pro-IP	Liberal	Court division	Judicial citations	Law Review citations
Patent	No	Yes	9/0	124	81
Scores	Court Median	Collegial (Liberal)	Collegial (Pro-IP)	Strategic-Mean	Strategic-Median
	0.45	4.29	4.29	0.37	0.45
Justices	Stevens, Ginsburg, Souter, Breyer, Kennedy, Alito, Roberts, Scalia, Thomas				

In *KSR International Co. v. Teleflex Inc.*, the Supreme Court addressed the

---

235. *Id.* at 124–25, 129.

236. *Id.* at 129. Justice Thomas dissented, holding that MedImmune was essentially seeking a hypothetical ruling. *Id.* at 137 (Thomas, J., dissenting).

237. *See id.* at 137 (majority opinion).

238. The Spaeth Database classifies the issue in *MedImmune* as "Standing to Sue, Legal Enquiry" under the general issue of "Judicial Power." Spaeth, Spaeth Database, *supra* note 19.

issue of "obviousness" in patent law, which determines the extent to which a new invention must differ from existing inventions in the relevant field in order to qualify for patent protection.[239] Teleflex and KSR were competitors in the auto parts field, and both companies supplied pedal assemblies.[240] When KSR added a modular sensor to its existing automobile accelerator pedal system to make the system compatible with newer vehicles using computer-controlled throttles, Teleflex alleged infringement of its "Adjustable Pedal Assembly With Electronic Throttle Control" patent.[241]

KSR maintained that the disputed patent claim was invalid because it was obvious under section 103 of the Patent Act. Section 103 limits patentable inventions to those that, taken as a whole, would not have been obvious to the person with ordinary skill in the art in light of the prior art.[242] The district court agreed with KSR on a motion for summary judgment.[243] However, the Federal Circuit reversed, applying its "teaching-suggestion-motivation" (TSM) test.[244] Under the TSM test, a patent claim that combines two known elements can only be deemed to be obvious "if 'some motivation or suggestion to combine the prior art teachings' can be found in the prior art, the nature of the problem, or the knowledge of a person having ordinary skill in the art."[245]

The Supreme Court agreed with KSR that the TSM test as applied by the Federal Circuit was erroneous.[246] The Supreme Court rejected the rigidity of the TSM test as inconsistent with the Court's precedents.[247] Essentially, the Supreme Court credited the person with ordinary skill in the art with considerably more resourcefulness than did the Federal Circuit. In particular, the Court noted that the Federal Circuit erred by limiting the application of any given piece of prior art to the particular problem the invention was intended to address.[248] The Federal Circuit also erred in assuming that a "person of ordinary skill attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem."[249] The Supreme Court argued that where design needs or market forces create pressure to solve a particular problem, the person with ordinary skill has good reason to pursue known options within his or her

---

239. KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406–07 (2007). The Court had previously addressed the non-obviousness standard in *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1 (1966). *Id.* at 406.

240. *Id.* at 409–10.

241. *Id.* at 405–06. Teleflex was the exclusive licensee of U.S. Patent No. 6,237,565. "Claim 4 of the ... patent describes a mechanism for combining an electronic sensor with an adjustable automobile pedal so the pedal's position can be transmitted to a computer that controls the throttle in the vehicle's engine." *Id.* at 406.

242. *Id.*

243. Teleflex Inc. v. KSR Int'l Co., 298 F. Supp. 2d 581, 596 (E.D. Mich. 2003).

244. Teleflex, Inc. v. KSR Int'l Co., 119 F. App'x 282, 286 (Fed. Cir. 2005).

245. *KSR Int'l*, 550 U.S. at 407 (citation omitted).

246. *Id.* at 415.

247. *Id.* at 415–18.

248. *Id.* at 420.

249. *Id.*

technical grasp.[250] Accordingly, such refinements are the product of common sense, not patentable innovation.[251]

The Court was persuaded that given the obvious benefits, mounting an electronic sensor on a fixed pivot point of the pedal system was a small design step that was well within the grasp of a person of ordinary skill in the relevant field.[252] The Court noted that the marketplace had "created a strong incentive to convert mechanical pedals to electronic pedals" and that the prior art taught a number of methods for doing just that.[253] Accordingly, the Court unanimously held that the patent claim was invalid as obvious.[254]

The Supreme Court's decision in KSR effectively requires a more substantial difference between a new invention and the prior art in order to justify the grant of the patent.[255] Apart from its effects on subsequent litigation,[256] anecdotal reports suggest that KSR has significantly increased the willingness of patent examiners to reject applications on the basis that the invention disclosed is obvious in light of the prior art.[257] This substantive assessment is consistent with the SJS coding of this case as limiting IP rights (Pro-IP = 0). Consistent with this, Spaeth classifies KSR as a liberal decision (Lib = 1), presumably because it is "pro-competition."[258]

In contrast to both SJS and Spaeth, the outcome scores generated by the Jacobi measures all point to varying degrees of conservatism in this case. The Ideological score in KSR was 0.45; similarly, the Strategic-Mean score was 0.37. Both of these scores indicate that the decision should be seen as mildly conservative. Once again, the Collegial measure is more extreme, indicating a score of 4.29. The moderately conservative case outcome scores generated by the Ideological and Strategic-Mean measures could be taken to suggest that, although the decision goes against the interests of intellectual property owners, it does so only moderately in light of the extremely pro-IP position of the status quo under the Federal Circuit. The Collegial score, on the other hand, is difficult to justify.

C. SCORING THE SUPREME COURT INTELLECTUAL PROPERTY CASES

Throughout this examination of the Supreme Court's most influential IP

250. *Id.* at 420–21.
251. *Id.* at 421.
252. *Id.* at 422.
253. *Id.*
254. *Id.* at 426.
255. Although it must be noted that even small differences from the prior art might be patentable if they "do no more than yield predictable results." *Id.* at 416.
256. *See, e.g.,* Leapfrog Enters., Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1161 (Fed. Cir. 2007) (invalidating a patent due to obviousness).
257. *See* Yar R. Chaikovsky & Firasat Ali, *Chaikovsky and Ali on the Changing Face of Inter Partes Reexamination*, EMERGING ISSUES, Dec. 4, 2007, at 21.
258. The Spaeth Database codes the primary issue in this case as "Patent" under the general issue of "Economic Activity." Spaeth, Spaeth Database, *supra* note 19.

cases, it is clear that the Collegial case outcome scores are at odds with both the
SJS IP case outcome coding and the Spaeth liberal-conservative coding. In
addition, the Collegial scores are often extremely hard to reconcile with a
doctrinal understanding of the impact of each case. It is also apparent that while
the Ideological score generally provides a plausible characterization of each
case, the Strategic scores typically more closely reflect the substance of the
decision. While this undertaking has necessarily involved subjective assess-
ments of the cases, these patterns are sufficiently distinct to provide support for
the conclusions reached from our statistical results.

As such, we can now examine what IP cases look like when scored according
to the best empirical measure of case outcomes, the Strategic-Mean measure.
Tables 10 and 11 display the IP Cases, from most liberal to most conservative,
for non-unanimous liberal outcomes and conservative outcomes, respectively.

Based on our empirical and doctrinal assessment, the Strategic-Mean mea-
sure is well suited as an aggregate measure of ideology; however, some caution
is required when using the measure for specific comparisons of the IP content of
individual cases. To the extent that there were multiple issues in a case, the
resulting Strategic scores are, at best, a summary of all of those issues. This
explains how *Florida Prepaid*, for example, ranks as a conservative decision,
even though it is transparently not a pro-IP decision.[259] Nonetheless, looking at
the array of cases in Tables 10 and 11 suggests that the Strategic-Mean measure
gives us a plausible assessment of the relative scores of IP cases. Take the three
fair use cases as an example: almost any copyright scholar would agree that
Harper & Row is more pro-IP than *Campbell*, and that both are more pro-IP
than *Sony*. This is exactly what the scores suggest.[260]

VI. IMPLICATIONS

Although doctrinal analysis is detail-oriented and statistical analysis is aggre-
gation-oriented, our two modes of analysis have identified similar patterns in
both our IP Cases and All Cases data. From our doctrinal examination of the ten
most influential IP cases, we concluded that: both the Strategic and Ideological
measures are plausible; the Collegial measure is not plausible; and the Strategic
measures are both reliable case outcome measures. These results were consis-
tent when examining all twenty-two of the Court's most influential IP cases.[261]

The doctrinal results confirmed our empirical findings. Whether looking at IP
cases or all Supreme Court cases, the Ideological measure consistently dis-
played correlations in the predicted direction, but at a low to moderate level of
substantive significance. It only reached statistical significance for one of the
three tests—as applied to the liberal-conservative variable in the All Cases data.

---

259. Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank, 527 U.S. 627 (1999).

260. The Strategic-Mean scores for *Harper & Row*, *Campbell*, and *Sony* are 1.13, 0.43, and 0.07,
respectively.

261. *See supra* note 123.

Table 10. Scores of Liberal IP Cases

Sony v. Universal City Studios
Feist v. Rural Telephone
Aronson v. Quick Point
Chrysler v. Brown
Thomas v. Union Carbide
GM v. Devex
Broadcast Music v. Columbia Broadcasting
Ruckelshaus v. Monsanto
Bonito Boats v. Thunder Craft
Park'n'Fly v. Dollar Park & Fly
MGM Studios v. Grokster
Merck KGaA v. Integra Lifesciences
Brunette Machine v. Kockum Industries
Dastar v. Twentieth Century Fox
Aro Manufacturing v. Convertible Top (1964)
Festo v. Shoketsu Kinzoku Kogyo Kabushiki
Holmes v. Vornado
KP Permanent Make-Up v. Lasting Impression
TrafFix Devices v. Marketing Displays
KSR v. Teleflex
Quanta v. LG Electronics
eBay v. MercExchange
Moseley v. V Secret Catalogue
Pfaff v. Wells Elecs
Feltner v. Columbia Pictures
Quality King v. L'Anza Research
Campbell v. Acuff-Rose
Warner-Jenkinson v. Hilton Davis
Markman v. Westview Instruments
Qualitex v. Jacobson Products
Sakraida v. Ag Pro
Dennison Manufacturing v. Panduit
Fogerty v. Fantasy
Dann v. Johnston
Unitherm Food v. Swift-Eckrich
Cooper v. Leatherman Tool
Twentieth Century Music v. Aiken
Teleprompter v. Columbia Broadcasting
Cardinal Chemical v. Morton
Professional Real Estate v. Columbia Pictures
Microsoft v. AT&T
Two Pesos v. Taco Cabana
N.Y. Times v. Tasini
U.S. Gypsum v. National Gypsum
Mazer v. Stein
Eldred v. Ashcroft
Dickinson v. Zurko
J.E.M. Ag Supply v. Pioneer Hi-Bred
U.S. v. Du Pont
Diamond v. Chakrabarty
Asgrow Seed v. Winterboer
Harper & Row v. Nation Enterprises
San Francisco Arts v. U.S. Olympic
Wal-Mart v. Samara
Kewanee v. Bicron
Dawson Chemical v. Rohm & Haas
Diamond v. Diehr
Mills Music v. Snyder
Dow Chemical v. U.S.
Lab Corp v. Metabolite Labs
Zacchini v. Scripps-Howard
College Savings v. Florida Prepaid
Florida Prepaid v. College Savings
Goldstein v. California

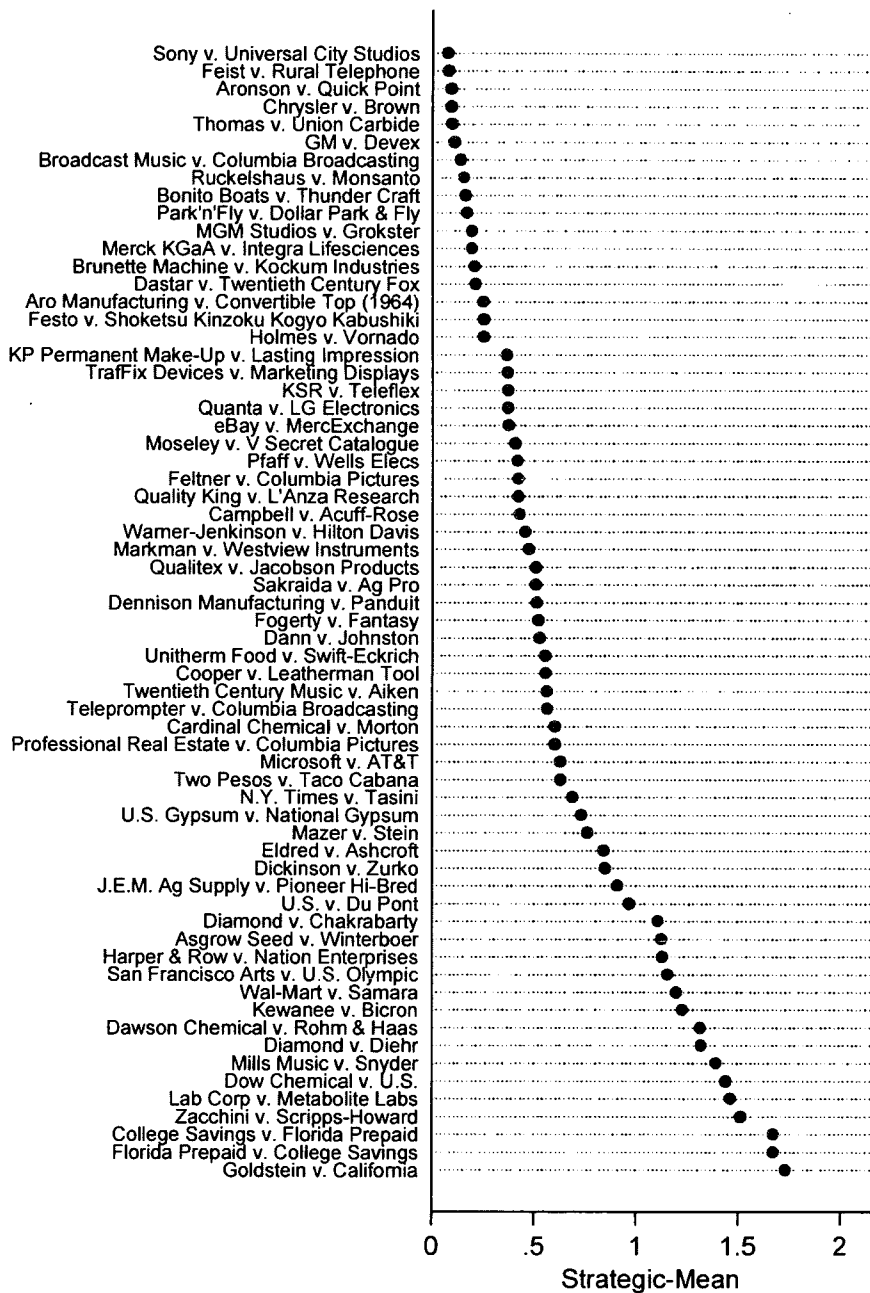0   .5   1   1.5   2

Strategic-Mean

Table 11. Scores of Conservative IP Cases

The Collegial measure, in both its permutations, was consistently in the wrong direction to that predicted, as assessed by either pre-existing score of case outcomes. Finally, both Strategic measures were consistently correlated with both pre-existing outcome scores in the directions predicted, with coefficients that were both substantively significant and highly statistically significant for all three tests and when applied to both IP cases and all Supreme Court cases. In addition, the Strategic-Mean measure was the most normal, displaying the least kurtosis or skewness. These results have implications for intellectual property jurisprudence, for developing a rigorous approach to empirical study of the courts, and for the study of the Supreme Court more generally.

In terms of empirical legal studies, this Article constitutes an important step in the enterprise of developing rigorous empirical tools generally, and case outcome measures in particular. It is the first study to take soundly theoretically derived, continuous measures of case outcomes, apply them to a specific area of the law and to Supreme Court cases generally, and rigorously test the relative merits of those measures.

In doing so, we have illustrated that empirical legal studies can do better than utilizing only the simple liberal-conservative dichotomy, or even our own outcome-based dichotomous categorization of IP case outcomes. We do not imply that these categorizations are unhelpful, but we do suggest that we can have much more sophisticated measures of case outcomes. In particular, we found that there are two closely related measures of case outcomes that scholars can confidently use in empirical analysis: the mean of the majority coalition and the median of the majority coalition. The use of these empirical case outcome measures allows for both an expansion of doctrinal analysis and a tool for further empirical study.

To summarize, first, we are confident in our conclusion that the Collegial measure is an inappropriate measure of case outcomes. The Collegial measure was regularly at odds with our doctrinal examination of the influential IP cases. It also produced consistently strange results in our empirical analysis: it created case outcome scores that were significantly at odds with both the traditional liberal-conservative case categorization and the Pro-IP case categorization. These results were substantively large and highly significant and in the opposite direction to prior predictions. For the Collegial measure to be accurate, it would have to be true that a majority coalition of conservative-oriented Justices would regularly sign on to very liberal outcomes in order to mollify the most marginal Justice, and vice versa. Additionally, case outcomes would have to be only marginally affected by changes in Court personnel in general, or in movements of the Court median in particular.

Second, the Ideological measure, the measure favored by many political scientists, has been shown to be somewhat valid—the mean is not biased but the distribution is skewed—and somewhat reliable—it appears to consistently capture the correct direction of case outcomes but not the magnitude. But it is not as valid or reliable as either Strategic measure. Both the Strategic-Mean and the

Strategic-Median measures are less skewed and capture a lot more nuance. Thus our doctrinal analysis repeatedly found the Ideological measure to be plausible but the Strategic measures to be more persuasive: the Strategic measures had a higher correlation with the liberal-conservative variable in both IP and All Cases, had a higher correlation with the SJS Pro-IP variable in IP cases, and were closer to a normal distribution.

For these reasons, despite the fact that the Ideological measure was highly correlated with both versions of the Strategic measure, we conclude that the Strategic measures are superior. This accords with the sole other empirical study on this question, which found that the median of the majority coalition is a better test of majority case outcomes than a median of the Court measure.[262] This is not to deny the strong influence of the median of the Court, which many Positive Political Theory studies either assume or show is generally powerful. The high correlation between the Strategic and Ideological measures indicates that the Strategic measures account for the influence of the median of the Court, but capture more of the effect of variation in coalition composition between cases. It also accords with recent empirical findings that the Court median is influential, but not automatically all-powerful.[263]

Finally, in terms of choosing between the two versions of the Strategic measure, the choice is much closer. The two versions of the measure are highly correlated and both perform well on the external checks—both statistical and doctrinal—and thus we consider both to be viable measures of case outcomes. The Strategic-Median is closer to the median of the Court and therefore closer to the formalization of Jacobi's strategic model. However, the Strategic-Mean is more normal and in many cases easier to calculate. We prefer the Strategic-Mean measure for these reasons, but conclude that the Strategic-Median is also a valid and reliable measure of case outcomes.

These results are highly informative about the underlying puzzle of judicial behavior that drove the development of Jacobi's initial case outcome measures: how do Justices weigh their competing desires to achieve their preferred case outcomes and, at the same time, maintain large majority coalitions? The conclusion that the Collegial measure is unsound does not imply that collegiality does not matter on the Court or that Justices do not care about the size of their majority coalitions. Rather, it tells us something of the *manner* in which collegiality matters to Justices. Remember that the Strategic measures also took account of collegiality; therefore, our results suggest that collegiality matters, but that Justices take account of it in a sophisticated way, as the Strategic model assumes, rather than in a naive way, as the Collegial model assumes.

---

262. Westerland, *supra* note 44, at 32.
263. *See* Epstein & Jacobi, *supra* note 76, at 98.

APPENDIX

Table 12. Results for IP Cases

Title	Pro-IP	Liberal	Court Median	Collegial	Strategic-Mean	Strategic-Median
Mazer v. Stein	1	0	0.58	0.01	0.76	0.82
United States v. E. I. Du Pont de Nemours & Co.	1	0	0.68	0.68	0.96	0.97
Cold Metal Process Co. v. United Eng'g & Foundry Co.	1	1	0.68	1.25	−0.51	0.07
U.S. Gypsum Co. v. Nat'l Gypsum Co.	0	0	0.12	−0.59	0.73	0.87
Fourco Glass Co. v. Transmirra Prods. Co.	0	0	0.25	−4.31	−0.59	−0.17
Miller Music Corp. v. Charles N. Daniels, Inc.	0	1	0.43	0.43	−1.77	−1.48
Hoffman v. Blaski	1	1	0.43	1.46	−0.98	−0.52
Schnell v. Peter Eckrich & Sons, Inc.	0	1	0.53	1.94	−0.31	0.53
Aro Mfg. Co. v. Convertible Top Replacement Co. (1961)	0	1	0.53	1.27	−1.18	−1.09
Pub. Affairs Assocs., Inc. v. Rickover	0	1	0.41	1.80	−0.83	−0.16
Dairy Queen, Inc. v. Wood	0	1	−0.73	2.23	−0.85	−0.73
United States v. Loew's, Inc.	0	1	−0.77	0.21	−1.40	−0.97
United States v. Singer Mfg. Co.	0	1	−0.77	0.65	−1.14	−0.87
Sears, Roebuck & Co. v. Stiffel Co.	0	1	−0.83	2.46	−0.74	−0.83
Compco Corp. v. Day-Brite Lighting, Inc.	0	1	−0.83	2.46	−0.74	−0.83
Hudson Distribs., Inc. v. Eli Lilly & Co.	1	0	−0.83	−5.42	−1.14	−0.87
Wilbur-Ellis Co. v. Kuther	0	1	−0.83	0.48	−1.14	−0.87
Aro Mfg. Co. v. Convertible Top Replacement Co. (1964)	0	0	−0.83	−0.91	0.25	0.04
Brulotte v. Thys Co.	0	1	−0.56	0.65	−1.02	−0.62

Table 12. Results for IP Cases—Continued

Title	Pro-IP	Liberal	Court Median	Collegial	Strategic-Mean	Strategic-Median
Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.	0	1	−0.57	2.14	−0.73	−0.57
Hazeltine Research, Inc. v. Brenner	0	0	−0.57	−5.73	−0.73	−0.57
United States v. Adams	1	0	−0.31	−5.73	−0.76	−0.57
Graham v. John Deere Co. of Kan. City	0	1	−0.31	2.14	−0.67	−0.31
Brenner v. Manson	0	1	−0.57	0.83	−0.42	−0.57
Switzerland Cheese Ass'n, Inc. v. E. Horne's Mkt., Inc.	0	0	−0.30	−5.85	−0.74	−0.30
Fleischmann Distilling Corp. v. Maier Brewing Co.	0	0	−0.30	−5.85	−0.94	−0.65
United States v. Sealy, Inc.	0	1	−1.00	0.90	−1.45	−1.08
Fortnightly Corp. v. United Artists Television, Inc.	0	1	−0.57	0.47	−0.33	−0.09
Zenith Radio Corp. v. Hazeltine Research	0	1	−0.45	0.66	−1.18	−0.91
Lear, Inc. v. Adkins	0	0	−0.45	−0.91	−0.05	0.15
Anderson's-Black Rock, Inc. v. Pavement Salvage Co.	0	1	0.08	0.66	−0.88	0.08
Zenith Radio Corp. v. Hazeltine Research	0	1	0.57	2.19	−0.24	0.57
Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.	0	1	0.57	2.19	−0.24	0.57
United States v. Topco Assocs., Inc.	0	1	0.21	2.44	−0.45	0.21
Deepsouth Packing Co. v. Laitram Corp.	0	1	0.77	0.77	−1.48	−0.99
Brunette Mach. Works, Ltd. v. Kockum Indus., Inc.	1	0	0.77	−6.30	0.21	0.77
Gottschalk v. Benson	0	1	−0.12	3.90	−0.29	−0.12

Table 12. Results for IP Cases—Continued

Title	Pro-IP	Liberal	Court Median	Collegial	Strategic-Mean	Strategic-Median
United States v. Glaxo Group Ltd.	0	1	1.04	2.26	−0.73	−0.12
Goldstein v. California	1	0	1.04	0.19	1.73	1.27
Teleprompter Corp. v. Columbia Broad. Sys., Inc.	0	1	0.60	4.14	0.56	0.57
Kewanee Oil Co. v. Bicron Corp.	1	0	0.57	−1.43	1.23	0.95
Twentieth Century Music Corp. v. Aiken	0	1	0.61	4.21	0.56	0.61
Dann v. Johnston	0	1	0.53	4.30	0.53	0.53
Sakraida v. Ag Pro, Inc.	0	1	0.53	4.30	0.51	0.53
Zacchini v. Scripps-Howard Broad. Co.	1	0	0.49	0.32	1.51	0.63
Parker v. Flook	0	1	0.26	0.44	−0.82	−0.04
Broad. Music, Inc. v. Columbia Broad. Sys., Inc.	1	0	0.11	−3.00	0.14	0.33
Aronson v. Quick Point Pencil Co.	1	1	0.11	4.19	0.09	0.11
Chrysler Corp. v. Brown	0	1	0.11	4.19	0.09	0.11
Diamond v. Chakrabarty	1	0	0.15	−0.27	1.10	0.48
Dawson Chem. Co. v. Rohm & Haas Co.	1	0	0.15	−0.07	1.31	0.79
Diamond v. Diehr	1	0	0.07	−0.26	1.32	0.80
Inwood Labs., Inc. v. Ives Labs., Inc.	0	1	−0.12	3.91	−0.09	−0.12
Gen. Motors Corp. v. Devex Corp.	1	1	0.46	3.82	0.11	0.46
Sony Corp. of Am. v. Universal City Studios, Inc.	0	1	0.74	1.54	0.08	0.74
Ruckelshaus v. Monsanto Co.	0	1	0.42	3.76	0.15	0.09
Park 'N Fly, Inc. v. Dollar Park & Fly, Inc.	1	0	0.66	−3.83	0.17	0.80

Table 12. Results for IP Cases—Continued

Title	Pro-IP	Liberal	Court Median	Collegial	Strategic-Mean	Strategic-Median
Mills Music, Inc. v. Snyder	0	0	0.66	−0.49	1.39	1.24
Harper & Row, Publisher, Inc.. v. Nation Enters.	1	0	0.66	−0.49	1.13	1.04
Dowling v. United States	0	1	0.66	3.58	−0.43	−0.35
Thomas v. Union Carbide Agric. Prods. Co.	0	0	0.66	−3.83	0.09	0.66
Dennison Mfg. Co. v. Panduit Corp.	0	1	0.78	3.38	0.51	0.96
Dow Chem. Co. v. United States	0	0	0.78	−0.47	1.44	1.20
San Francisco Arts & Athletics, Inc. v. U.S. Olympic Comm.	1	0	0.08	−0.58	1.15	1.17
K Mart Corp. v. Cartier, Inc.	.	1	0.21	1.53	−1.15	−0.51
Bonito Boats, Inc. v. Thunder Craft Boats, Inc.	0	1	1.01	2.59	0.16	1.01
Cmty. for Creative Non-Violence v. Reid	1	1	1.01	2.59	−0.16	1.01
Stewart v. Abend	1	1	0.78	1.83	−0.49	0.78
Eli Lilly & Co. v. Medtronic, Inc.	0	1	0.78	2.42	−0.66	−0.84
Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.	0	1	0.95	2.17	0.08	0.95
Two Pesos, Inc. v. Taco Cabana, Inc.	1	0	0.56	−2.08	0.63	0.56
Prof'l Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.	1	1	0.68	2.85	0.60	0.68
Cardinal Chem. Co. v. Morton Int'l, Inc.	1	1	0.68	2.85	0.60	0.68
Fogerty v. Fantasy, Inc.	0	1	0.79	3.19	0.52	0.79
Campbell v. Acuff-Rose Music, Inc.	0	1	0.72	3.19	0.43	0.72
Asgrow Seed Co. v. Winterboer	1	0	0.65	−0.56	1.12	0.67

Table 12. Results for IP Cases—Continued

Title	Pro-IP	Liberal	Court Median	Collegial	Strategic-Mean	Strategic-Median
Qualitex Co. v. Jacobson Prods. Co.	1	0	0.64	−2.80	0.51	0.64
Markman v. Westview Instruments, Inc.	0	0	0.55	−3.02	0.47	0.55
Warner-Jenkinson Co. v. Hilton Davis Chem. Co.	0	1	0.67	3.54	0.45	0.67
Quality King Distribs., Inc. v. L'anza Research Int'l, Inc.	0	1	0.62	3.56	0.42	0.62
Feltner v. Columbia Pictures Television, Inc.	0	1	0.62	3.56	0.42	0.62
Pfaff v. Wells Elecs., Inc.	0	1	0.72	3.61	0.42	0.72
Dickinson v. Zurko	0	0	0.72	−1.29	0.85	0.74
Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank	0	0	0.72	−0.86	1.67	1.66
Coll. Sav. Bank v. Fla. Prepaid Postsecondary Ed. Expense Bd.	0	0	0.72	−0.86	1.67	1.66
Wal-Mart Stores, Inc. v. Samara Bros., Inc.	0	1	0.71	3.59	1.20	1.25
Cooper Indus., Inc. v. Leatherman Tool Group, Inc.	0	0	0.47	−2.79	0.55	0.67
TrafFix Devices, Inc. v. Mktg. Displays, Inc.	0	1	0.71	3.59	0.37	0.71
N.Y. Times Co. v. Tasini	1	1	0.47	3.67	0.69	0.67
J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int'l, Inc.	1	0	0.30	−1.73	0.91	0.97
Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.	1 .	0	−0.20	−2.71	0.25	−0.20
Holmes Group, Inc. v. Vornado Air Circulation Sys., Inc.	0	0	0.30	−2.71	0.25	0.30
Eldred v. Ashcroft	1	0	0.22	−1.72	0.84	0.82

Table 12. Results for IP Cases—Continued

Title	Pro-IP	Liberal	Court Median	Collegial	Strategic-Mean	Strategic-Median
Moseley v. V Secret Catalogue, Inc.	0	1	0.22	3.88	0.41	0.52
Dastar Corp. v. Twentieth Century Fox Film Corp.	0	1	0.22	3.88	0.21	0.22
KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.	0	1	0.29	4.10	0.37	0.29
Merck KGaA v. Integra Lifesciences I, Ltd.	0	1	0.08	4.10	0.19	0.08
Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.	1	0	0.08	−2.54	0.19	0.08
Unitherm Food Sys., Inc. v. Swift-Eckrich, Inc.	0	0	−0.03	−1.55	0.55	−0.03
Ill. Tool Works Inc. v. Indep. Ink, Inc.	1	0	−0.03	−2.48	−0.29	−0.73
eBay Inc. v. MercExchange, L.L.C.	0	1	0.42	4.22	0.37	0.42
Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.	1	0	−0.50	−1.45	1.46	1.45
MedImmune, Inc. v. Genentech, Inc.	0	1	0.45	2.77	−0.12	−0.49
KSR Int'l Co. v. Teleflex Inc.	0	1	0.45	4.29	0.37	0.45
Microsoft Corp. v. AT&T Corp.	0	1	−0.49	4.29	0.63	0.45