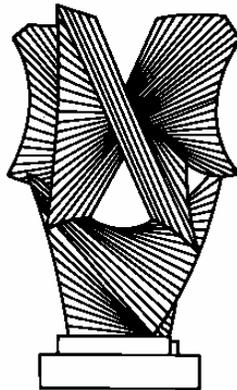


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WHICH STATES HAVE THE BEST (AND WORST) HIGH COURTS?

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Which States Have the Best (and Worst) High Courts?

Stephen J. Choi, Mitu Gulati, and Eric A. Posner*

In April 2008, Wisconsin Supreme Court Justice Louis Butler lost an election to a challenger, Michael Gableman, in a race marked by record-breaking campaign spending and charges of ideological bias.¹ Conservatives accused Justice Butler of liberal activism, while Justice Butler's allies argued that Gableman would, if elected, be a tool of conservative ideologues and business interests. A Wall Street Journal columnist, citing a recent study by Jake Dear and Edward Jessen that found that the Wisconsin Supreme Court was the eighth most cited by other state courts, argued that the defeat has "national implications" and "sends a signal that a judge who dramatically oversteps traditional boundaries can be brought to account."² The columnist did not pause to consider whether Wisconsin's high court enjoyed its high standing because of Justice Butler and colleagues like him, or despite them.

The study in which Wisconsin placed eighth ranked states according to how often decisions by their high courts were "followed" by out-of-state courts, as defined by the Shepherd's citation system.³ Other academic studies that rank states have used similar methodologies—in general, focusing on the extent to which a state's high court is cited by out-of-state high courts.⁴ The Dear & Jessen study received some attention in the media.⁵ But by far that most influential ranking of state courts—focusing on the entire legal systems, not just the high courts—has been produced by the U.S. Chamber of Commerce, which conducts annual surveys of lawyers that ask them for their evaluations of state courts.⁶

The U.S. Chamber of Commerce surveys ask senior lawyers at corporations that earn more than \$100 million per year in revenues to grade state court systems, from A to F, and aggregate their responses. The overall ranking of Wisconsin in the 2008 survey was 24th, well

* NYU Law School, Duke Law School, and the University of Chicago Law School. Thanks to Un Kyung Park and the participants at a workshop at Duke Law School for their comments, and to Jake Dear and Edward Jessen for sharing their data.

¹ Scott Bauer, Report Shows Special Interests Dominated Wis. Supreme Court Race, *The Journal Times*, April 9, 2008; The Wisconsin "Tragedy," *The Wall Street Journal*, April 3, 2008, at p. A14.

² John Fund, Wisconsin's Judicial Revolution, *The Wall Street Journal*, April 5, 2008, at p. A5. We discuss this study, *infra*.

³ Jake Dear & Edward Jessen, "Followed" Cases and Leading State Cases, 1940-2005, 41 *U.C. Davis L. Rev.* 683 (2007).

⁴ See Part I, *infra*.

⁵ See Adam Liptak, Around the Country, High Courts Follow California's Lead, *New York Times*, March 11, 2008 at A12; Pamela A. MacLean, Calif. Up, N.Y. Down in Study Gauging Influence: Washington, Arizona, New Jersey Courts Show Surprising Weight, *The National Law Journal*, March 3, 2008..

⁶ Related are the reports of so-called "judicial hellholes" put out by organizations like the American Tort Reform Association (that are applauded by the U.S. Chamber of Commerce). See <http://www.uschamber.com/press/releases/2004/december/04-163.htm>

below its ranking in the Dear & Jessen study.⁷ Wisconsin judges' impartiality was rated 23rd, competence was rated 17th, predictability was rated 20th, and fairness was rated 22nd.⁸ Whereas California ranks first in the Dear & Jessen study, it ranks near the bottom (44th out of 50) in the 2008 U.S. Chamber of Commerce study.⁹

What accounts for these differences? First, Dear and Jessen focus on state supreme courts, while the Chamber of Commerce evaluates the entire judicial system. It is possible that good state supreme courts preside over mediocre trial and lower appellate courts. Second, Dear and Jessen focus on out-of-state influence, while the Chamber of Commerce focuses on in-state performance. Out-of-state influence might be a good proxy for the quality of supreme court opinions, but it also might not be; it is possible that a supreme court that writes influential opinions is not fair or predictable, though it is hard to believe that it is not competent. Third, and most important, Dear and Jessen, in effect, survey out-of-state judges, while the Chamber of Commerce surveys business lawyers. We might expect business lawyers to have different attitudes toward judicial decisionmaking. Business lawyers probably give high marks to courts that decide cases in a manner that businesses like—rejecting punitive damages, for example—while out-of-state judges need not share these views.

We will have more to say about the methodological assumptions of the Chamber of Commerce study.¹⁰ It is sufficient to point out that U.S. Chamber of Commerce rankings have been more influential than Dear and Jessen's ranking, and much more so than those by academics. They have been cited by state legislators to criticize their judiciaries and ask for reform, by a judicial pay compensation commission as a justification for a salary increase, and by two governors to advertise the attractiveness of their states for big business.¹¹ The U.S. Chamber of Commerce has used its annual survey of state court systems as a means to pressure state legislatures to improve their court systems.¹² Academics have also used the rankings in

⁷2008 U.S. Chamber of Commerce State Liability Systems Ranking Study, available at: <http://www.instituteforlegalreform.com/states/lawsuitclimate2008/pdf/FullHarrisSurvey.pdf>, p. 15.

⁸ Id. at 33-36.

⁹ Id. at 15.

¹⁰ See Part V.

¹¹ For the advertisement on the Delaware Governor's website, see

<http://governor.delaware.gov/news/2004/03march/030804%20-%20u.s.%20chamber%20ranking.shtml> (quoting Justice Norm Veasey as saying: "The Judicial Branch of Delaware government is extremely pleased and gratified that our Courts rank number one in the nation in the quality of our litigation system."); see also

<http://www.governor.virginia.gov/MediaRelations/newsReleases/viewRelease.cfm?id=213> (website of the Governor of Virginia, talking about Virginia's high ranking on the Chamber of Commerce survey). For discussions of the rankings and the need for reforms to improve rankings, see e.g.,

<http://www.kansaschamber.org/forms/advo3/V3Num14.htm> (noting Kansas' drop from 4 to 16th). On the use of

rankings to argue for salary increases, see Iowa Judicial Compensation Task Force, available at

[http://www.iowabar.org/miscdocuments.nsf/2b85a4ea12f4bfac8625669d006e27ab/f0fb92e322a9987d86256ff20049a0bb/\\$FILE/Judicial%20compensation.pdf](http://www.iowabar.org/miscdocuments.nsf/2b85a4ea12f4bfac8625669d006e27ab/f0fb92e322a9987d86256ff20049a0bb/$FILE/Judicial%20compensation.pdf).

¹² See U.S. Chamber of Commerce remarks, at

http://www.uschamber.com/press/speeches/2006/060327_ilr_rankings_remarks.htm:

But there's still quite a ways to go before we can rid our courts of lawsuit abuse and correct the deep flaws in our legal system. One of the key weapons in our arsenal is the annual State Liability Systems Ranking Study.

Since the inception of the study, it has become the benchmark against which businesses, elected officials, the media and other opinion leaders measure their state's legal climate.

empirical studies of the relationship between judicial quality and institutional design.¹³ Groups like the Ralph Nader led organization, Public Citizen, have complained that these rankings are biased toward the interests of big business.¹⁴ But, in the absence of meaningful competitive rankings, this is the equivalent of law schools urging students to ignore the U.S. News rankings. It doesn't work. Rather than urge people to ignore imperfect rankings, we should develop better rankings.

Why rank state courts? As we saw, the Wall Street Journal columnist believed that the Wisconsin judicial race was significant because the Wisconsin Supreme Court is a highly ranked court. People whose lives are influenced by out-of-state supreme courts (through, for example, the influence of the out-of-state court's opinions on the decisionmaking of courts in their own states) benefit by knowing which of those courts have the most influence. At a minimum, they might want to get involved when judges on that court are being selected, and to contribute amicus briefs and other assistance when litigation with out-of-state implications is being conducted. Accurate rankings of state courts can also help legal research. If the best judicial opinions are the product of courts rather than individual judges, then judges, lawyers, and scholars who are searching for well-reasoned cases will benefit by knowing which courts are most likely to produce those cases.

Finally, ranking states courts might contribute to reform. State courts vary greatly along various institutional dimensions—how judges are selected, how much they are paid, and so forth. It is reasonable to think that the best courts have the best institutional design. Perhaps, appointed judges are better than elected judges, or highly-paid judges are better than less well-paid judges. A state unhappy with its judicial system might try to imitate the systems of states that have well-regarded judiciaries; or judges on low-ranked courts might try to imitate the case-management system of judges on higher-ranked courts. There has been controversy about these issues in recent years. Critics ranging from former Justice Sandra Day O'Connor to novelist John Grisham, have attacked judicial election systems, pointing to recent campaigns involving undignified rhetoric, ideologically tinged campaign promises that are at odds with the judicial role, and the influence of moneyed interests.¹⁵

They want to see how they stack up against other states, and also how well – or poorly – the system is serving employers, workers and consumers.

¹³ E.g., Daniel Berkowitz & Karen Clay, Initial Conditions, Institutional Dynamics and Economic Performance: Evidence from the American States, March 2004 draft (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=485003#PaperDownload) (using the 2002 Chamber of Commerce rankings as a measure of court quality in the different states); Russell S. Sobel & Joshua C. Hall, The Effect of Judicial Selection Processes on Judicial Quality: The Role of Partisan Politics, 27 *Cato J.* 69 (2007); Russell S. Sobel, Matt E. Ryan, & Joshua C. Hall, Electoral Pressures and the Legal System: Friends or Foes? in *Law Without Romance: Public Choice and Legal Institutions* (E. Lopez ed. forthcoming). (available at <http://joshua.c.hall.googlepages.com/electoralpressures.pdf>). Neither of the latter two studies mention that the Chamber and Commerce data reflect the views of only lawyers at corporations with annual revenues of at least \$100 million.

¹⁴ See Public Citizen Complaints at <http://www.commondreams.org/news2005/0309-10.htm>; see also <http://www.citizen.org/documents/OutlierReport.pdf> (complaint regarding the Judicial Hellholes reports).

¹⁵ See Sandra Day O'Connor, Justice For Sale, *Wall Street Journal*, November 15, 2007 (available at <http://www.opinionjournal.com/editorial/feature.html?id=110010864>); John Grisham, *The Appeal* (2007).

On the salary front, federal and state judges have been complaining about low pay for years, arguing that low pay is forcing many high quality judges to leave the bench to move to the private sector.¹⁶ Chief Judge Judith Kaye, of the New York Court of Appeals, has filed a lawsuit against the governor and legislative leaders of New York State for failing to fund cost-of-living increases over a nine year period, during which judicial salaries eroded by 25 percent in real terms.¹⁷ Judge Kaye argues that the failure to raise pay has undermined the effectiveness of the judiciary and hence judicial independence.

In earlier work, we showed that the relationship between institutional design and judicial quality is complex, and does not lend much support to the conventional wisdom. Appointed judges write more frequently-cited opinions than elected judges do, but elected judges are more productive, while there seems to be no difference between their levels of independence.¹⁸ Judicial pay has little effect on judicial quality, except among elected judges, who are more productive when paid more.¹⁹ It is not the purpose of this Article to review or reproduce these findings. Our goal instead is to generate a ranking of the state high courts on the basis of the data that we collected for the earlier studies. We will argue that our ranking overcomes many of the defects of the U.S. Chamber of Commerce study, as well as those of earlier academic work.

Rankings make people uneasy. They seem to trivialize activities that are of public importance, and they may stimulate the ranked agents or institutions to engage in destructive competition or demoralize those that have no ability to escape from the bottom. The most serious objection to rankings is that they unavoidably rely on measures that neglect hard-to-observe but important aspects of performance. If nonetheless those who achieve a high ranking are rewarded with resources or public esteem, institutions will distort their missions so as to do well on whatever measures are used.²⁰

We address this objection by making our rankings as transparent and flexible as possible. Readers might disagree about how to weight the different measures that we use, and we show how such disagreements may lead to different rankings of the state courts. The alternative to rankings is, as a practical matter, virtually no information, and public institutions that are not carefully monitored and evaluated will rarely have strong incentives to perform well. Rankings, however imperfect, serve an important *information-forcing* function.²¹ Institutions that do poorly on rankings should have the burden of coming forth with an explanation for their performance; but if the explanation is plausible, then the ranking should be discounted. Better still, if the stakes are high enough – and the amounts of money spent by institutions like the U.S.

¹⁶ See Doug Sherwin, Top Justices Decry Professions' Lagging Salaries, *The Daily Transcript*, Jan 10, 2007.

¹⁷ See Joel Stashenko & Daniel Wise, *Kaye Sues State Over Judicial Salaries*, N.Y. L. J. April 11, 2008 (available at http://www.law.com/jsp/nylj/judicial_pay_impasse.jsp)

¹⁸ Stephen Choi, Mitu Gulati, & Eric Posner, *Professionals or Politicians: The Uncertain Empirical Case for an Elected Rather than Appointed Judiciary* (unpub. m.s. 2008) (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1008989).

¹⁹ Stephen Choi, Mitu Gulati, & Eric Posner, *Are Judges Overpaid?: A Skeptical Response to the Judicial Salary Debate* (forthcoming, *Journal Legal Analysis*, 2008) (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1077295).

²⁰ See Steve Kerr, *On the Folly of Rewarding A While Hoping for B*, 18 *Acad. Mgt. Rev.* 769 (1975).

²¹ For more on information forcing see Scott Baker, Stephen J. Choi, Mitu Gulati, *The Rat Race as an Information-Forcing Device*, 81 *Ind. L.J.* 53 (2006).

Chamber of Commerce on commissioning rankings suggest there are²² – competitor rankings should emerge that improve upon the prior ones.

We begin with a survey of the state court ranking literature in Part I. Part II describes our ranking method. Parts III provides our rankings of courts; Part IV discusses some problems with our rankings and possible solutions; and Part V tackles the Chamber of Commerce Survey.

I. Prior Literature

We are aware of five academic articles that rank the state high courts. In addition, since 2002, the U.S. Chamber of Commerce has issued annual rankings based on surveys of senior lawyers employed by large businesses.

Lawrence Friedman, Robert Kagan, Bliss Cartwright and Stanton Wheeler examined a data set consisting of approximately 6000 cases from the state high courts for discrete intervals of time in the 1870-1970 period.²³ Focusing on sixteen state high courts, the study uses the evolution in patterns of opinion writing style and citations over a century to draw inferences about court behavior. The study does not provide a detailed ranking of all the state high courts in terms of citations, but does give a rough sense of which states dominated over the different periods during that century. In the quarter century, 1870-95, the stars were New York, Massachusetts and California. New York stood out during the early portion of that period, but its influence had begun to wane at the end. By 1925, the courts in Illinois, Michigan, Wisconsin and Pennsylvania had begun to emerge as influential. Finally, in 1945-1970, California had emerged as a star. New Jersey, Texas and Illinois also showed themselves as among the more influential in terms of citations. Overall, for 1870-1970, the four top states were New York, California, Massachusetts and Illinois.

Rodney Mott's 1936 study covered a more limited period, roughly from 1900 to 1930.²⁴ Mott used multiple measures of court prestige that included: (1) a survey of law professors who were asked about the esteem with which they held the various courts; (2) the extent to which cases from the different courts found their way into casebooks; (3) citations from other state high courts; (4) citations from the U.S. Supreme Court. The top and bottom ten states in Mott's composite ranking are reported in Table 1. Consistent with the numbers from Friedman et al., Mott reports New York, Massachusetts, California and Illinois as among the top performers. The steep drop in numbers from the top two states, New York and Massachusetts and the others – on all of Mott's measures – is worth noting. This superstar effect, where a couple of the players dramatically outdo the others, is relevant for making comparison across time because it suggests the strong possibility that modifications of the measures – for example, adjusting for the number of judges on the court – would still leave the superstar states at the top. At the bottom

²² Although we do not have data on the amounts spent by the Chamber of Commerce on its rankings, we suspect they are not cheap. As background, in 2007, the U.S. Chamber of Commerce spent \$52,750,000 in lobbying money. The Institute for Legal Reform (which does the survey) spent \$21,910,000 of that money. (<http://www.opensecrets.org/lobbyists/clientsum.asp?year=2007&txtname=US+Chamber+of+Commerce>).

²³ Lawrence Friedman et al., *State Supreme Courts: A Century of Style and Citation*, 33 *Stan. L. Rev.* 733 (1981).

²⁴ Rodney L. Mott, *Judicial Influence*, 30 *Amer. Pol. Sci. Rev.* 295 (1936).

end in Mott's composite rankings are Florida and the western states of Nevada, Arizona, New Mexico and Wyoming. Many of the western states were still relatively young, and their low ranks may have been due to their less developed bodies of case law.

Roughly fifty years later, building on Mott's work, but focusing exclusively on citation measures, Gregory Caldeira re-ranked the state high courts.²⁵ Caldeira looked at a single year, 1975, and his method of calculation differed from Mott's; Caldeira adjusted the citation numbers to discount for the propensity of some states to make outside citations for reasons other than the quality of the state high courts. For example, Alaska might have cited to more outside state courts than did other states because it didn't have much of its own case law. Caldeira also looked only at a single measure, citations from the high courts to each other. Table 1 reports the top and bottom performers in Caldeira's rankings. Despite the half-century gap between his study and Mott's, the states in the top ten are similar. The only difference between 1930 and 1975 in the top ten states is that Washington replaces Minnesota. The suggestions of a superstar effect present in Mott's results – with the top two states significantly outdoing the others – remains, except that the two superstar states are now California and New York as opposed to New York and Massachusetts. At the bottom, there are a number of new states, the three holdovers at the bottom being Nevada, South Dakota and Wyoming.

In 2002, Scott Comparato updated Caldeira's study with data from 2000 using similar measurement methods.²⁶ While Caldeira's study looked at every case cited in 1975, Comparato uses random samples of thirty cases from each state court. Despite the twenty-five year gap, the identities of the top performing states remain remarkably stable. California and New York take the top two superstar spots and remain a good way ahead of the others. New entrants into the top ranks include Minnesota and Colorado. At the bottom, there is more turnover, with Texas, Vermont, Louisiana, and Tennessee showing up.

Most recently, Jake Dear and Edward Jessen have offered a ranking based on a novel measure of influence.²⁷ Contending that the standard measure of outside court citations was too crude, Dear and Jessen counted, for the period from 1940 to 2005, the number of times the Shepherd's citation service designated a decision as "followed or used as persuasive authority."²⁸ California again dominates, with Washington coming in second. Massachusetts and New York remain in the top ten, and there are states such as Oregon and Kansas that show up for the first time. At the bottom, there are some new entrants, including Virginia and Delaware. In Table 1, we report their rankings only for cases decided from 1998-2000, rather than from 1940-2005; this permits a closer comparison to our ranking, which uses 1998-2000 data.²⁹

The final ranking comes from a non-academic study. This is a ranking of the various state courts put out by the U.S. Chamber of Commerce (for purposes of our discussion, we focus

²⁵ Gregory A. Caldeira, *On the Reputation of State Supreme Courts*, 5 *Pol. Behav.* 83 (1983).

²⁶ Scott A. Comparato, *On the Reputation of State Supreme Courts Revisited* (unpublished draft dated April 2002; on file with authors).

²⁷ Dear & Jessen, *supra*, at 690-93.

²⁸ *Id.*

²⁹ For 1940-2005, the top ten states are, in order: California, Washington, Colorado, Iowa, Minnesota, Kansas, Massachusetts, Wisconsin, Oregon, New York.

on the 2002 rankings).³⁰ In this study, close to 1,500 senior lawyers working at firms with revenues of at least \$100 million annually were surveyed annually since 2001 for their evaluations of the different state legal systems. As we will discuss in Part V, there is good reason to doubt that these particular lawyers would provide an objective evaluation of state legal systems, as opposed to an evaluation that reflects the perspective of a lawyer who works for a large corporation. That said, two of the survey questions ask for evaluations of judicial performance and presumably the performance of the high courts is correlated with that of the lower courts in the state. These rankings are very much at odds with the prior rankings. The states showing up at the top in 2002, for example, include Delaware, Virginia, and Nebraska, states that have not shown up at the top on any of the citation based rankings (actually, Delaware and Virginia have shown up closer to the bottom on some of the citation counts). At the other end, the Chamber of Commerce surveys have the perennial superstar performer on the citation measures, California, near the bottom (ranked 34th for judicial impartiality, 28th for judicial competence, and 45th under the “overall” ranking), along with another perennial front runner in the citation studies, Illinois (ranked 38th for judicial impartiality, 39th for judicial competence, and 34th under the “overall” ranking).³¹

Table 1: Prior Studies

Panel A: Top Ten Performing States by Study

| <i>1945-1970 Kagan et al., citation ranking</i> | <i>1900-30 Mott composite ranking</i> | <i>1975 Caldeira citation ranking</i> | <i>2000 Comparato citation ranking</i> | <i>1998-2000 Dear & Jessen “followed” citations</i> | <i>2002 Chamber of Commerce Survey – Judges’ Impartiality</i> | <i>2002 Chamber of Commerce Survey – Judges’ Competence</i> |
|---|---|---|--|---|---|---|
| California | New York | California | California | California | Delaware | Delaware |
| New Jersey | Massachusetts | New York | New York | Washington | Colorado | Washington |
| Texas | Illinois | New Jersey | Minnesota | Nebraska | Washington | Virginia |
| Illinois | New Jersey | Pennsylvania | Pennsylvania | Kansas | Iowa | Iowa |
| | California | Massachusetts | Colorado | Massachusetts | Wisconsin | Minnesota |
| | Pennsylvania | Wisconsin | Michigan | Connecticut | Connecticut | Colorado |
| | Michigan | Illinois | Washington | Montana | Nebraska | Arizona |
| | Minnesota | Washington | Illinois | Iowa | Oregon | Connecticut |
| | Wisconsin | Iowa | New Jersey | Maryland | Virginia | New York |
| | Iowa | Michigan | Wisconsin | Texas-Civil | Minnesota | Wisconsin |

Panel B: Bottom Ten Performing States by Study

³⁰ 2005 U.S. Chamber of Commerce State Liability Systems Ranking Study, Final Report Dates March 8, 2005.

³¹ Less directly on point are a handful of other studies that could also be read to contain rankings of the states but that we do not discuss because they are tangential to our inquiry. For example, a 1981 study by Bradley and Canon compared the states in terms of their innovativeness in terms of being willing to adopt a set of 23 plaintiff-friendly tort law doctrines. Bradley C. Canon & Lawrence Baum, Patterns of Adoption of Tort Law Innovations, 75 Amer. Pol. Sci. Rev. 975 (1981). There are also a number of other studies that examine the citation patterns of individual state courts. Merryman, for example, in two studies twenty years apart, looked at the citation practices of the California Supreme Court, which could be read to be California’s ranking of the rest of the state high courts. John Henry Merryman, The Authority of Authority: What the California Supreme Court Cited in 1950, 6 Stan. L. Rev. 613 (1954); John Henry Merryman, Toward a Theory of Citations: An Empirical Study of the Citation Patterns of the California Supreme Court in 1950, 1960 and 1970, 50 S. Cal. L. Rev. 381 (1977).

| <i>1870-1895 Kagan et al., ranking</i> | <i>1900-30 Mott composite ranking</i> | <i>1975 Caldeira citation ranking</i> | <i>2000 Comparato citation ranking</i> | <i>1998-2000 Dear & Jessen “followed” citation</i> | <i>2002 Chamber of Commerce Survey – Judges’ Impartiality</i> | <i>2002 Chamber of Commerce Survey – Judges’ Competence</i> |
|--|---|---|--|---|---|---|
| N/A | Montana Arkansas Utah South Dakota Idaho Wyoming Florida Nevada Arizona New Mexico | Maine S. Carolina W. Virginia Nevada North Dakota Rhode Island Vermont Hawaii South Dakota Wyoming | Texas Louisiana West Virginia Rhode Island North Dakota Tennessee Nevada Alaska Maine Vermont | Idaho Arizona Utah Delaware Louisiana Oregon Kentucky Hawaii New Mexico Missouri | Arkansas S. Carolina Hawaii New Mexico Montana Texas Alabama W. Virginia Louisiana Mississippi | S. Carolina Kentucky Hawaii Arkansas Texas Montana W. Virginia Louisiana Alabama Mississippi |

Our study differs from these prior studies in several ways. First, we use three measures rather than one measure of judicial quality—productivity and independence as well as opinion-quality. Second, for opinion quality we use citations (unlike Dear and Jessen) but we do not adjust them for state size (unlike Caldeira and Comparato). Third, we do not survey lawyers. The differences between our approach and the earlier studies are driven partly by a different focus—the quality of the courts rather than (only) their influence—and partly by our different judgments about how to measure influence. We return to these differences when we compare our results to those of the earlier studies.

II. Ranking Criteria

Everyone agrees that some courts are better than other courts, and that, at least in principle, one can rank courts according to their quality. But some might be troubled by the idea that courts can be ranked objectively—that is, by using publicly verifiable information about their decisions. Too much of what a courts does cannot be observed or measured objectively, and so objective measures are more likely to mislead than to enlighten.³²

This skepticism might reflect some part of the truth but it sweeps too broadly. One can say the same thing about virtually any institution—and a court, of course, is just a particular type of institution. Consider the problem of evaluating employees. Employers need to measure the performance of employees so that they can set compensation, fire and promote, and in other ways provide incentives to work productively. Almost all types of work involve a mixture of activities that can be observed and measured, and activities that cannot be observed and measured. For example, a law firm might evaluate its lawyers on the basis of hours billed, briefs written, cases argued and won, and so forth, but the firm will also be conscious that how the lawyer handles clients, how efficiently the lawyer spends her hours, how well she gets along with colleagues—all are components of her productivity. If the firm rewards her entirely on the basis of her measurable activities, then she will have an incentive to shirk with respect to the unmeasurable activities. In practice, law firms and other employers base compensation decisions

³² E.g., Steven Goldberg, *Federal Judges and the Heisman Trophy*, 32 Fla. St. L. Rev. 1237 (2004); William P. Marshall, *Be Careful What You Wish For*, 78 S. Cal. L. Rev. 119 (2004).

on both types of activities, using measurable criteria as a broad gauge, but also relying on the judgments of supervisors and colleagues regarding the unmeasurable activities.

These same considerations apply to judges and, a fortiori, to courts. The objective measures that we use capture some aspects of judicial quality but not all of it. It would be a mistake to believe that small differences in measured outcomes reflect significant differences in quality. But where the differences are large, it is likely that the lower-ranked judges or courts are inferior, at least unless a good reason can be given to explain the difference.³³

We use three measures of quality: productivity, influence, and independence. We apply these measures to a data set consisting of the decisions of all the judges of the highest court of every state for the three years from 1998 to 2000. We exclude the District of Columbia, and we treat the separate civil and criminal high courts in Texas and Oklahoma as, in effect, separate states. We thus have 52 “states.”

We use these years so that we can compile enough out-of-state citations to provide for meaningful comparison (up through 2006). Unfortunately, many judges on the bench in the period have retired, and many judges on the benches today are new. Nonetheless, our ranking is relatively comprehensive.

There are 408 judges in our data set, about 8 per court. The average judge was in office 2.65 years of the 3 years that we examine, and wrote about 67 opinions per year. We examine the productivity, citations, and average independence of all of the judges on the bench during the period. We thus produce productivity, citations, and independence measures for the *courts*, and rank them accordingly.

A. Productivity

Productivity refers to the number of opinions a judge publishes in a year. All else equal, a judge who publishes more opinions is better than a judge who publishes fewer opinions. There are two reasons for this. First, if all opinions are published, then a judge who publishes more opinions, decides more cases, thus resolving more disputes between people. Dispute resolution is the judge’s core function, and the more disputes a judge resolves, the greater is the service that she is providing. Note that in some states judges decide cases without issuing opinions. In these states, we cannot assume that judges who publish more opinions also decide more cases. States also vary in terms of whether there are intermediate appellate courts that screen cases before they get to the high court and in terms of the degree to which the high court’s jurisdiction is discretionary. Although we do not do it here, we can, to a limited extent, control for those institutional differences by using information about publication and jurisdictional rules and practices.³⁴ Further, the scholarship from judges and court-watchers tells us that published opinions are more likely to involve effort from the judges, whereas unpublished dispositions and short orders are more likely to be the work of secondary personnel. Publication rates, therefore,

³³ For further discussion of methodological issues involved in ranking judges, see Stephen J. Choi, & G. Mitu Gulati, Choosing the Next Supreme Court Justice: An Empirical Ranking of Judge Performance, 78 S. Cal. L. Rev. 23 (2004).

³⁴ See Choi, Gulati, & Posner, Professionals or Politicians, *supra*.

can provide a better measure of individual judge effort than overall case decision rates. Second, a judge who publishes an opinion shares her reasoning with the parties and with other judges who seek to understand the resolution of the dispute. High publication rates in this way benefit the system, and suggest a high-quality judge.

A judge who publishes frequently might write lower-quality opinions than a judge who writes and publishes less frequently. So productivity is only a partial measure of a judge's merits. We address quality in Section B.

The most productive court in our 1998 to 2000 dataset was Georgia's (58.33 opinions per judge year); the least productive was New Mexico's (10.07 opinions per judge year); the median state was Kansas (23.0 opinions per judge per year).

B. Influence or Opinion-Quality

Opinion-quality refers to the quality of the reasoning in an opinion. We measure opinion quality by using a proxy: the number of out-of-state citations by state high courts defined to equal the sum of all citations to majority opinions published by the state high court in question from other state courts, federal courts (other than the home federal circuit), and the U.S. Supreme Court. (In other work, we use other proxies for quality as well, such as law review citations; these measures are highly correlated with out-of-state citations by state high courts.³⁵) We assume that a high-quality opinion is more likely to be useful for out-of-state courts, and therefore is more likely to be cited.³⁶

The citations measure can be given two different interpretations. We use it as a proxy for the intrinsic quality of the reasoning in the opinion. A high-quality opinion benefits the litigants themselves, but also everyone in the state whose activities might bring them under the law in question. But out-of-state citations are also a (more) direct measure of out-of-state influence. It is not entirely clear whether a state's residents would prefer to have judges who are influential out of state or not; these judges might be better than are necessary to get the job done, and they benefit outsiders rather than residents. Still, we think that out-of-state citations are a useful measure of quality.

California was the most-cited court for the 1998 to 2000 period, with 33.76 outside citations per judge year (majority opinions only). Oklahoma's criminal high court was the least-cited, with 3.69 outside citations per judge year. The median state was South Dakota (13.07 outside citations per judge year).

C. Independence

Independence refers to the judge's ability to withstand partisan pressures, or disinclination to indulge partisan preferences, when deciding cases. Our measure of independence gives a judge a high score if he is more likely to vote with opposite-party judges

³⁵ Id.

³⁶ See, e.g., William M. Landes, Lawrence Lessig & Michael E. Solimine, *Judicial Influence: A Citation Analysis of Federal Courts of Appeal Judges*, 27 J. Legal Stud. 271 (1998).

and a low score if he is more likely to vote with same-party judges. We focus on votes by judges in situations where the judge faces an opposing opinion, defined as either a majority opinion when the judge writes a dissent, or a dissent when the judge joins the majority. We assume that a judge exhibits independence when she writes an opposing opinion against a co-partisan.

For each judge, we obtained information on the political affiliation of the judge. In a few states, all the high court judges belong to the same party in our data set, and so we cannot assign those judges an independence score.³⁷ In our sample, 220 judges were classified as a Democrat and 170 as a Republican (with 16 no data or Independent party judges).

We define *Opposite_Party* as the number of opposing opinions written, by the judge of interest, against a judge of the opposite party divided by the number of opposing opinions written against a judge of either party from 1998 to 2000. This variable measures propensity to side with co-partisans. Not all opposing opinions are driven by the ideology of the opposing judges. A judge who dissents at random would dissent 70% of the time against an opposite party judge if the background pool of majority opinions consisted of 70% opposite party authored opinions. To take into account the background pool of opinions, we define *Opposite Pool* as the total number of majority opinions authored by an opposite party judge divided by the total number of majority opinions authored by either an opposite or same party judge (not including the judge in question) from 1998 to 2000.

We define *Independence* as *Opposite_Pool* minus *Opposite_Party*. A more negative *Independence* score corresponds to a judge who writes opposing opinions against opposite party judges more frequently than the background pool of majority opinions authored by opposite party judges. Conversely, a more positive *Independence* score corresponds to an authoring judge who writes opposing opinions less frequently against opposite party judges compared with the background pool of opinions (and thus more frequently against co-partisans). We treat a more positive *Independence* score as indicative of a more independent judge.

Our independence measure does not capture all the meanings of judicial independence. Judges who take bribes or favor wealthy or powerful litigants are not independent, but our independence measure does not capture such activity. One can also imagine cases where a judge's policy preferences influence their decisions, which is improper, but these policy preferences are idiosyncratic and do not track partisan divisions. Our independence measure misses these cases as well.

The independence score ranges from -1 (least independent) to 1 (most independent). The court with the highest mean independence score among judges for the 1998 to 2000 period was Rhode Island's, with a mean independence score of 0.19; the least independent court was that of Mississippi, which had a mean independence score of -0.31. The median was -0.02.

³⁷ For a detailed description of our independence measure, see Choi, Gulati, & Posner, *Professionals or Politicians*, supra. In another paper, Choi and Gulati treat a 0 independence score as highest on the theory that zero independence means that party affiliation makes no difference to case outcomes. See Choi & Gulati, *Choosing*, supra. However, we think that, in the present setting, a judge who votes against partisan affiliation is most likely to be more independent, as it shows that he or she feels strongly about the outcome. It's possible that the judge switched ideologies while sitting, but prior scholarship indicates that this is highly unusual. See Jeffrey A. Segal & Harold J. Spaeth, *The Supreme Court and the Attitudinal Model Revisited* 314 (2002).

D. Composite Measures

Suppose that a court ranks highly on one measure but not so well on the other two measures, whereas another court does worse on the first measure but better on the other two. Which court is better? Ideally, we would have a theory that tells us how much each measure should be weighted; but we have no such theory. One might think that independence is much more important than productivity and quality, or one might think not. Equal weight for each measure is no less arbitrary than counting only one measure and ignoring the other two.

The problem is not necessarily serious, however. Suppose it is the case that courts that do well on one measure also tend to do well on other measures. If the rankings along each measure are largely consistent, then overall rankings can easily be obtained. As the rankings become less consistent, noise is introduced into the rankings, but it doesn't necessarily defeat the exercise. Finally, readers can decide for themselves how much they weight the different measures, and interpret our results accordingly.

Hence, we use an approach that allows for various weightings. Under this composite approach, we construct rankings under several possible weightings, and we display them in a manner that allows the reader to focus on whatever measures she believes are most important.

III. Ranking the Courts

A. The Court Systems

All states have a hierarchical system, with trial courts at the bottom and a supreme or highest court at the top. Most but not all states have intermediate appellate courts. Two states—Texas and Oklahoma—have two high courts, one for criminal appeals and the other for civil appeals. Many high courts have mandatory jurisdiction: they must hear appeals. Others have discretionary jurisdiction. Most have a combination of mandatory jurisdiction for some types of cases (such as death penalty cases) and discretionary jurisdiction for other types of cases. Courts have different rules and norms for a range of practices, such as whether opinions must or need not be published. No doubt courts have different internal cultures reflecting different attitudes toward dissenting, writing quickly or slowly, writing comprehensively or briefly, citing generously or minimally, and so forth. Some high courts might benefit from the high quality work of lower courts, or suffer from their low quality work.

Two features of high courts have lately received a great deal of public and scholarly attention: their selection system and judicial pay. The selection system refers to the method by which judges are selected and retained. There are, roughly, three systems. In appointments systems, the governor (sometimes the state legislature) appoints judges, sometimes with the advice of a commission. In merit systems, a nonpartisan or bipartisan body selects judges; at the end of the judge's term, a retention election (up or down vote) determines whether the judge has another term. In electoral systems, judges are elected; these can be further divided into partisan and nonpartisan systems—in partisan systems, the judge's party is put on the ballot. Table 2

identifies the selection systems of all of the states as of 1998-2000, the period from which we take our data.

Table 2: Selection Systems

| Appointed (A) | Merit Selection (M) | Non-Partisan Election (NE) | Partisan Election (PE) |
|----------------------|----------------------------|-----------------------------------|-------------------------------|
| Connecticut | Alaska | Georgia | Alabama |
| Delaware | Arizona | Idaho | Arkansas |
| Hawaii | Colorado | Kentucky | Illinois |
| Massachusetts | Iowa | Louisiana | Mississippi |
| Maine | Indiana | Michigan | North Carolina |
| New Hampshire | Kansas | Minnesota | New Mexico |
| New Jersey | Maryland | Montana | Pennsylvania |
| New York | Missouri | North Dakota | Texas |
| Rhode Island | Nebraska | Nevada | West Virginia |
| Vermont | Oklahoma | Ohio | |
| South Carolina | South Dakota | Oregon | |
| Virginia | Utah | Washington | |
| | Wyoming | Wisconsin | |
| | California | | |
| | Florida | | |
| | Tennessee | | |

A further point is that judicial terms vary, from as little as 4 years to as much as 14 years, with lifetime tenure in three states. Roughly speaking, appointed judges enjoy the longest tenure, merit selection judges the next longest, and elected judges the shortest tenure. One might think of the four systems reflecting the degree to which the public directly affects the identify of judges: they have the least effect in appointment systems, the most effect in electoral system, with the merit system in between.

Judicial compensation also varies. In 2007, the median income of high court judges was \$149,200, and ranged from \$106,185 to \$209,521.³⁸ The employment conditions of judges differ in other ways as well. Judges enjoy different levels of secretarial and clerical support. Roughly speaking, elected judges are paid less than appointed judges; they are also more likely to have graduated from a local law school.

Finally, we should mention the obvious fact that the mix of cases that reach high courts differs from state to state. Some states are highly urban, others are not; some have certain types of industries that other lack; some have higher crime rates than others; and so on. For this reason, comparison between the different high courts, and the judges who sit on them, is hazardous and complex.

³⁸ National Center for State Courts, Survey of Judicial Salaries, http://www.ncsconline.org/WC/Publications/KIS_JudComJudSal070107Pub.pdf.

B. Productivity

We begin with productivity. Table 3 provides our results, ranked by opinion per year. The fourth column provides aggregate productivity (the total number of opinions); the last column provides a measure of efficiency—opinions per judge-year. The two measures are highly correlated (correlation coefficient = 0.92; significant at the <1% level).

Table 3: Number of Opinions

| <i>Rank</i> | <i>State</i> | <i>Sel. System</i> | <i>Opinions</i> | <i>Judge Years</i> | <i>Opinions/Year</i> |
|-------------|--------------|--------------------|-----------------|--------------------|----------------------|
| 1 | GA | NE | 1225 | 21 | 58.33 |
| 2 | MS | PE | 1437 | 29 | 49.55 |
| 3 | AR | PE | 1038 | 21 | 49.43 |
| 4 | AL | PE | 1417 | 30 | 47.23 |
| 5 | OH | NE | 989 | 21 | 47.10 |
| 6 | MT | NE | 968 | 21 | 46.10 |
| 7 | PA | PE | 941 | 21 | 44.81 |
| 8 | ND | NE | 703 | 16 | 43.94 |
| 9 | IN | M | 573 | 15 | 38.20 |
| 10 | WY | M | 548 | 15 | 36.53 |
| 11 | FL | M | 709 | 21 | 33.76 |
| 12 | CT | A | 707 | 23 | 30.74 |
| 13 | NE | M | 699 | 23 | 30.39 |
| 14 | ID | NE | 477 | 16 | 29.81 |
| 15 | IL | PE | 642 | 22 | 29.18 |
| 16 | CA | M | 605 | 21 | 28.81 |
| 17 | ME | A | 718 | 26 | 27.62 |
| 18 | MA | A | 608 | 23 | 26.43 |
| 19 | IA | M | 715 | 28 | 25.54 |
| 20 | AK | M | 446 | 18 | 24.78 |
| 21 | UT | M | 420 | 17 | 24.71 |
| 22 | SD | M | 366 | 15 | 24.40 |
| 23 | SC | A | 387 | 16 | 24.19 |
| 24 | MD | M | 523 | 22 | 23.77 |
| 25 | TN | M | 373 | 16 | 23.31 |
| 26 | WV | PE | 346 | 15 | 23.07 |
| 27 | KS | M | 483 | 21 | 23.00 |
| 28 | TX_CRIM | PE | 583 | 26 | 22.42 |
| 29 | LA | NE | 525 | 24 | 21.88 |
| 30 | NH | A | 366 | 17 | 21.53 |
| 31 | WA | NE | 578 | 28 | 20.64 |
| 32 | VA | A | 413 | 21 | 19.67 |
| 33 | MN | NE | 452 | 24 | 18.83 |
| 34 | KY | NE | 411 | 22 | 18.68 |
| 35 | WI | NE | 386 | 21 | 18.38 |
| 36 | VT | A | 274 | 15 | 18.27 |
| 37 | RI | A | 273 | 15 | 18.20 |
| 38 | NY | A | 380 | 22 | 17.27 |
| 39 | CO | M | 386 | 23 | 16.78 |
| 40 | MI | NE | 389 | 24 | 16.21 |
| 41 | OK_CIV | M | 435 | 28 | 15.54 |
| 42 | NV | NE | 259 | 18 | 14.39 |
| 43 | OK_CRIM | M | 230 | 16 | 14.38 |
| 44 | NJ | A | 376 | 27 | 13.93 |

| | | | | | |
|----|--------|----|-----|----|-------|
| 45 | TX_CIV | PE | 347 | 27 | 12.85 |
| 46 | HI | A | 225 | 18 | 12.50 |
| 47 | OR | NE | 245 | 21 | 11.67 |
| 48 | AZ | M | 172 | 15 | 11.47 |
| 49 | MO | M | 252 | 22 | 11.45 |
| 50 | NC | PE | 262 | 23 | 11.39 |
| 51 | DE | A | 163 | 15 | 10.87 |
| 52 | NM | PE | 151 | 15 | 10.07 |

The striking result is that our top four—Georgia, Mississippi, Arkansas, Alabama—show up at the top of none of the earlier ranking studies using citations. Mississippi, Arkansas, and Alabama do show up in the top ten of the Chamber of Commerce survey, suggesting that the senior lawyers who were surveyed might recognize that the courts of those states work hard. These traditionally overlooked states may deserve more credit.³⁹

C. Citations

Table 4 provides out-of-state citations to majority opinions produced by a court. The fourth column (Citations) provides a measure of the overall influence of the court; the last column (Citations/Year) provides a measure of efficiency, focusing on number of outside citations per judge-year. The two measures are highly correlated (correlation coefficient = 0.89; significant at the <1% level).

At the top, California is far ahead of the other states in both total number of citations and citations per judge-year. After California, there is more clustering, with Delaware, Montana and Washington being close together. New York, a perennial star on citation counts does not appear in the top twenty (it is number 24), below states like Arkansas and South Carolina whose judiciaries have traditionally had weaker reputations. Massachusetts though, another historically dominant state, remains among the top performers.

Table 4: Out-of-State Citations to Majority Opinions

| <i>Rank</i> | <i>State</i> | <i>Sel. Type</i> | <i>Citations</i> | <i>Judge Years</i> | <i>Citations/Year</i> |
|-------------|--------------|------------------|------------------|--------------------|-----------------------|
| 1 | CA | M | 709 | 21 | 33.76 |
| 2 | DE | A | 336 | 15 | 22.40 |
| 3 | MT | NE | 468 | 21 | 22.29 |
| 4 | WA | NE | 611 | 28 | 21.82 |
| 5 | MA | A | 469 | 23 | 20.39 |
| 6 | MD | M | 448 | 22 | 20.36 |
| 7 | ND | NE | 316 | 16 | 19.75 |

³⁹ A ready objection to using the number of published opinions is that some states have norms of producing and publishing short opinions and others use longer and more detailed opinions. If one assumes that the shorter opinions involve less effort (a questionable, but plausible assumption), then the better measure of effort might be the number of published pages. Alternatively, one could look at the number of West key cites which would provide a sense of the number of issues that opinion tackled (shorter and more routine opinions would have fewer West key cites). Unreported here, we calculated state rankings on each of these measures as well. The rankings do change. On the West key cite measure, for example, the top five states are South Carolina, Montana, Pennsylvania, New Jersey and Georgia. On the number of pages measure, the top states are Montana, Pennsylvania, California, Mississippi and Maryland.

| | | | | | |
|----|---------|----|-----|----|-------|
| 8 | KS | M | 388 | 21 | 18.48 |
| 9 | CT | A | 405 | 23 | 17.61 |
| 10 | NJ | A | 474 | 27 | 17.56 |
| 11 | CO | M | 382 | 23 | 16.61 |
| 12 | IN | M | 244 | 15 | 16.27 |
| 13 | NE | M | 371 | 23 | 16.13 |
| 14 | IL | PE | 354 | 22 | 16.09 |
| 15 | AR | PE | 337 | 21 | 16.05 |
| 16 | OH | NE | 337 | 21 | 16.05 |
| 17 | PA | PE | 336 | 21 | 16.00 |
| 18 | SC | A | 245 | 16 | 15.31 |
| 19 | AK | M | 273 | 18 | 15.17 |
| 20 | TN | M | 242 | 16 | 15.13 |
| 21 | IA | M | 403 | 28 | 14.39 |
| 22 | WV | PE | 206 | 15 | 13.73 |
| 23 | VT | A | 206 | 15 | 13.73 |
| 24 | NY | A | 301 | 22 | 13.68 |
| 25 | MN | NE | 321 | 24 | 13.38 |
| 26 | NH | A | 225 | 17 | 13.24 |
| 27 | SD | M | 196 | 15 | 13.07 |
| 28 | GA | NE | 262 | 21 | 12.48 |
| 29 | AZ | M | 187 | 15 | 12.47 |
| 30 | VA | A | 261 | 21 | 12.43 |
| 31 | WY | M | 184 | 15 | 12.27 |
| 32 | WI | NE | 256 | 21 | 12.19 |
| 33 | MS | PE | 322 | 29 | 11.10 |
| 34 | ME | A | 284 | 26 | 10.92 |
| 35 | AL | PE | 325 | 30 | 10.83 |
| 36 | FL | M | 208 | 21 | 9.90 |
| 37 | NM | PE | 143 | 15 | 9.53 |
| 38 | ID | NE | 148 | 16 | 9.25 |
| 39 | TX_CIV | PE | 243 | 27 | 9.00 |
| 40 | RI | A | 131 | 15 | 8.73 |
| 41 | NV | NE | 157 | 18 | 8.72 |
| 42 | MI | NE | 208 | 24 | 8.67 |
| 43 | HI | A | 150 | 18 | 8.33 |
| 44 | UT | M | 134 | 17 | 7.88 |
| 45 | NC | PE | 170 | 23 | 7.39 |
| 46 | LA | NE | 159 | 24 | 6.63 |
| 47 | KY | NE | 145 | 22 | 6.59 |
| 48 | OR | NE | 137 | 21 | 6.52 |
| 49 | OK_CIV | M | 160 | 28 | 5.71 |
| 50 | MO | M | 115 | 22 | 5.23 |
| 51 | TX_CRIM | PE | 105 | 26 | 4.04 |
| 52 | OK_CRIM | M | 59 | 16 | 3.69 |

Next, we compare our top ten states with those of the roughly contemporary citation studies, and the Chamber of Commerce survey measure of competence.

Table 5: Comparison of Influence Rankings**Top 10 Performers**

| <i>Our Citation Results</i> | <i>2000 Comparato citation ranking</i> | <i>1998-2000 Dear & Jessen “followed” citations</i> | <i>2002 Chamber of Commerce Survey – Judges’ Competence</i> |
|-----------------------------|--|---|---|
| California | California | California | Delaware |
| Delaware | New York | Washington | Washington |
| Montana | Minnesota | Nebraska | Virginia |
| Washington | Pennsylvania | Kansas | Iowa |
| Massachusetts | Colorado | Massachusetts | Minnesota |
| Maryland | Michigan | Connecticut | Colorado |
| North Dakota | Washington | Montana | Arizona |
| Kansas | Illinois | Iowa | Connecticut |
| Connecticut | New Jersey | Maryland | New York |
| New Jersey | Wisconsin | Texas-Civil | Wisconsin |

Bottom 10 Performers

| <i>Our Citation Results</i> | <i>2000 Comparato citation ranking</i> | <i>1998-2000 Dear & Jessen “followed” citations</i> | <i>2002 Chamber of Commerce Survey – Judges’ Competence</i> |
|-----------------------------|--|---|---|
| Hawaii | Texas | Idaho | S. Carolina |
| Utah | Louisiana | Arizona | Kentucky |
| North Carolina | West Virginia | Utah | Hawaii |
| Louisiana | Rhode Island | Delaware | Arkansas |
| Kentucky | North Dakota | Louisiana | Texas |
| Oregon | Tennessee | Oregon | Montana |
| Oklahoma Civil | Nevada | Kentucky | W. Virginia |
| Missouri | Alaska | Hawaii | Louisiana |
| Texas Criminal | Maine | New Mexico | Alabama |
| Oklahoma Criminal | Vermont | Missouri | Mississippi |

Correl. Coeff. between
Our Citation Results and
the underlying score for
each Influence Ranking
p-value*

| | | |
|-------|-------|-------|
| 0.388 | 0.565 | 0.280 |
| 0.005 | 0.000 | 0.049 |

Spearman Rank Coeff.
between Our Citation
Result Ranking and each
Influence Ranking
p-value**

| | | |
|-------|-------|-------|
| 0.184 | 0.555 | 0.311 |
| 0.201 | 0.000 | 0.028 |

*p-value is from a two-sided t-test of the null hypothesis there is no correlation.

**p-value is from a two-sided test of the null hypothesis that the two rankings in question are independent

Our results overlap with the results of all three studies, more so with the two academic citation studies. The correlation coefficients between our outside citation measure and the underlying scores behind each of the three other rankings in Table 5 are all positive and significant. The Spearman rank coefficient between our citation ranking and the three other rankings, similarly, is positive (although significant only for the Dear & Jessen and Chamber of Commerce rankings). Washington appears on all three lists. Our study and the Chamber of Commerce survey also overlap with Delaware, Washington, and Connecticut. Further, Delaware shows up high on both

our study and the Chamber of Commerce study and not at all in the other lists. And our list and Dear and Jessen’s include Montana, Massachusetts, and Connecticut.

Delaware does even better on our citation rankings (moving to a clear first place) when we separate out the common law and commercial law cases (see Appendix A) – the types of cases that business lawyers likely care the most about. That suggests that, at least with respect to Delaware, the business lawyers surveyed by the Chamber of Commerce, might recognize the merits of the Delaware court that are captured in our ranking. That said, California is second in the citation ranking even when we separate out the common law and commercial law cases and that is quite different from the Chamber of Commerce ranking that puts California in the bottom half of states (ranked 28th for judicial competence).

At the bottom of the rankings, there is more overlap between our rankings and the Chamber of Commerce study. While the Chamber of Commerce ranks our best performer (California) in the bottom half of their rankings, our two rankings share a number of states at the bottom (including Kentucky, Hawaii, Texas, and Louisiana). There is also a correspondence between our rankings and the two other citation-based measures.

D. Independence

Table 6 provides data on the independence of the courts. Note that several courts receive no score because of insufficient data. Rhode Island dominates the rankings. It is a state whose judiciary has not traditionally ranked high on citation counts, perhaps because of its small size and the presence of its dominant neighbor, Massachusetts. But it scores well above the majority of states on the independence measure. New York also scores high along with another state that does not traditionally do well on citation counts, Oregon.

Table 6: Average Independence Score

| <i>Rank</i> | <i>State</i> | <i>Sel. Type</i> | <i>Independence</i> |
|-------------|--------------|------------------|---------------------|
| 1 | RI | A | 0.19 |
| 2 | NY | A | 0.15 |
| 3 | OR | NE | 0.13 |
| 4 | UT | M | 0.10 |
| 5 | OK_CIV | M | 0.09 |
| 6 | NH | A | 0.06 |
| 7 | TX_CIV | PE | 0.04 |
| 8 | OH | NE | 0.03 |
| 9 | MS | PE | 0.03 |
| 10 | IL | PE | 0.03 |
| 11 | AR | PE | 0.03 |
| 12 | WV | PE | 0.03 |
| 13 | AZ | M | 0.02 |
| 14 | NE | M | 0.02 |
| 15 | TN | M | 0.01 |
| 16 | FL | M | 0.01 |
| 17 | LA | NE | 0.01 |
| 18 | ND | NE | 0.01 |
| 19 | CA | M | 0.00 |
| 20 | SD | M | N/A |
| 21 | NM | PE | N/A |

| | | | |
|----|---------|----|-------|
| 22 | MD | M | N/A |
| 23 | GA | NE | N/A |
| 24 | SC | A | N/A |
| 25 | MA | A | -0.00 |
| 26 | VT | A | -0.00 |
| 27 | KS | M | -0.01 |
| 28 | IA | M | -0.02 |
| 29 | WA | NE | -0.03 |
| 30 | PA | PE | -0.03 |
| 31 | TX_CRIM | PE | -0.03 |
| 32 | MN | NE | -0.04 |
| 33 | NJ | A | -0.04 |
| 34 | HI | A | -0.04 |
| 35 | KY | NE | -0.05 |
| 36 | NV | NE | -0.05 |
| 37 | MT | NE | -0.06 |
| 38 | ME | A | -0.07 |
| 39 | CO | M | -0.07 |
| 40 | AL | PE | -0.08 |
| 41 | VA | A | -0.08 |
| 42 | WY | M | -0.09 |
| 43 | AK | M | -0.09 |
| 44 | DE | A | -0.12 |
| 45 | NC | PE | -0.13 |
| 46 | OK_CRIM | M | -0.14 |
| 47 | MO | M | -0.14 |
| 48 | ID | NE | -0.15 |
| 49 | WI | NE | -0.16 |
| 50 | CT | A | -0.18 |
| 51 | IN | M | -0.21 |
| 52 | MI | NE | -0.31 |

Note: N/A means no score because court lacks partisan diversity.

Comparing our results to the Chamber of Commerce’s 2002 survey of judicial impartiality, we see no correlation between our underlying Independence scores and the Judge Impartiality scores reported in the 2002 Survey (correlation coefficient = -0.1810; not significant).⁴⁰ States the Chamber of Commerce ranks high, like Delaware, Colorado, Wisconsin, Virginia, and Connecticut, show up nearer the bottom in our Independence rankings. Table 7 shows our rankings for the top ten of the Chamber of Commerce survey with respect to judicial impartiality.

Table 7: Comparison of Independence Rankings

| <i>2002 Chamber of Commerce Survey – Top 10 for Judges’ Impartiality</i> | <i>Our rankings</i> |
|--|---------------------|
| Delaware | 44 |
| Colorado | 39 |
| Washington | 29 |
| Iowa | 28 |
| Wisconsin | 49 |
| Connecticut | 50 |

⁴⁰ See 2002 U.S. Chamber of Commerce States Liability Systems Ranking Study, *supra*, at 25. We also calculate the Spearman Rank Correlation Coefficient = -0.1576 (p-value of two-sided test of null hypothesis that the two are independent = 0.2745).

| | |
|-----------|----|
| Nebraska | 14 |
| Oregon | 3 |
| Virginia | 41 |
| Minnesota | 32 |

The lack of correlation may reflect the difference in methodologies. The Chamber of Commerce survey reveals whether senior lawyers at wealthy corporations think that the courts are impartial, whereas we examine whether judges are influenced by partisan considerations. Suppose that Republican judges tend to favor business interests and that the lawyers believe that decisions that favor business interests are “impartial.” If so, those lawyers would give high grades to courts dominated by Republican judges who vote together, whereas those courts would receive low independence scores because of partisan voting. There are other, more innocent explanations for the lack of correlation. The Chamber of Commerce survey asks for evaluations of the entire judiciary, whereas we examine the high courts. Lawyers face trial judges more than high court judges, and therefore their impartiality rankings might reflect the performance of the former rather than the latter.

E. Composite Measures

There are a number of ways of aggregating our measures. We begin with Table 8, which provides a composite measure that gives identical weightings to each of the three measures.

Table 8: Equal Weight Composite Ranking (All Subject Matter Areas)

| <i>State</i> | <i>Standard Dev. of Total Opinion Score</i> | <i>Standard Dev. of Outside Citation Score</i> | <i>Standard Dev. of Indep Score</i> | <i>Equal Weight Composite Score</i> |
|--------------|---|--|-------------------------------------|-------------------------------------|
| CA | 0.294 | 3.661 | 0.389 | 1.448 |
| AR | 2.006 | 0.500 | 0.654 | 1.053 |
| ND | 1.550 | 1.160 | 0.427 | 1.046 |
| MT | 1.729 | 1.613 | -0.317 | 1.008 |
| OH | 1.812 | 0.500 | 0.697 | 1.003 |
| GA | 2.746 | -0.138 | 0.009 | 0.872 |
| MS | 2.016 | -0.383 | 0.669 | 0.767 |
| PA | 1.623 | 0.491 | -0.005 | 0.703 |
| MA | 0.097 | 1.275 | 0.323 | 0.565 |
| NE | 0.425 | 0.514 | 0.593 | 0.511 |
| IL | 0.325 | 0.507 | 0.660 | 0.497 |
| NY | -0.664 | 0.077 | 1.984 | 0.466 |
| WA | -0.384 | 1.530 | 0.043 | 0.396 |
| MD | -0.124 | 1.270 | 0.009 | 0.385 |
| RI | -0.587 | -0.806 | 2.525 | 0.377 |
| KS | -0.188 | 0.933 | 0.209 | 0.318 |
| AL | 1.824 | -0.431 | -0.587 | 0.269 |
| NH | -0.311 | -0.002 | 0.992 | 0.226 |
| TN | -0.162 | 0.335 | 0.488 | 0.220 |
| FL | 0.705 | -0.597 | 0.456 | 0.188 |
| WV | -0.183 | 0.086 | 0.652 | 0.185 |
| UT | -0.047 | -0.958 | 1.437 | 0.144 |

| | | | | |
|---------|--------|--------|--------|--------|
| IA | 0.022 | 0.204 | 0.138 | 0.122 |
| SC | -0.090 | 0.368 | 0.009 | 0.096 |
| WY | 0.935 | -0.175 | -0.656 | 0.035 |
| SD | -0.072 | -0.033 | 0.009 | -0.032 |
| VT | -0.581 | 0.086 | 0.313 | -0.061 |
| NJ | -0.942 | 0.769 | -0.074 | -0.082 |
| AK | -0.041 | 0.342 | -0.690 | -0.129 |
| IN | 1.074 | 0.539 | -2.041 | -0.143 |
| CT | 0.454 | 0.778 | -1.670 | -0.146 |
| DE | -1.196 | 1.633 | -0.987 | -0.183 |
| OR | -1.129 | -1.200 | 1.757 | -0.191 |
| CO | -0.705 | 0.600 | -0.474 | -0.193 |
| MN | -0.534 | 0.023 | -0.071 | -0.194 |
| AZ | -1.146 | -0.140 | 0.620 | -0.222 |
| ME | 0.195 | -0.415 | -0.465 | -0.228 |
| OK_CIV | -0.808 | -1.345 | 1.315 | -0.279 |
| TX_CIV | -1.031 | -0.758 | 0.818 | -0.324 |
| LA | -0.282 | -1.182 | 0.438 | -0.342 |
| VA | -0.465 | -0.146 | -0.600 | -0.404 |
| ID | 0.377 | -0.714 | -1.346 | -0.561 |
| TX_CRIM | -0.236 | -1.644 | -0.012 | -0.631 |
| NM | -1.262 | -0.663 | 0.009 | -0.639 |
| KY | -0.547 | -1.188 | -0.193 | -0.643 |
| NV | -0.903 | -0.808 | -0.248 | -0.653 |
| HI | -1.060 | -0.877 | -0.092 | -0.676 |
| WI | -0.572 | -0.189 | -1.423 | -0.728 |
| NC | -1.152 | -1.046 | -1.139 | -1.112 |
| MO | -1.147 | -1.432 | -1.226 | -1.268 |
| OK_CRIM | -0.905 | -1.707 | -1.223 | -1.278 |
| MI | -0.752 | -0.818 | -3.102 | -1.557 |

Note: For each measure (total opinions per judge year, outside citations per judge year, and independence) we compute the standard deviation from the mean of the sample for each state. For those states without an independence score, we substitute the mean independence score for the other states in computing the standard deviation. We then combine the three standard deviation scores with equal weights to generate the equal weighted composite score.

California comes out at the top, as it has in other academic studies. More surprisingly, Arkansas comes in second.

However, there is no reason to think that each measure should receive equal weighting. Table 9 provides a triangle chart that varies the weight that is given to each of the three different measures. At each apex, the measure in bracket is given sole weight and the other measures are given zero. Between the apexes, the measures are given the weights in parentheses (in the order of quality, productivity, independence). For example, if you give equal weight to productivity

and independence, and no weight to quality, then the top five states are Georgia, Mississippi, Arkansas, Ohio, and North Dakota.⁴¹

⁴¹ Weighting choices matter more for the independence measure, which is uncorrelated with quality and productivity; quality and productivity have a correlation coefficient of 0.3.

**Table 9: Linear Combinations of Quality, Productivity, and Independence
For All Subject Matter Areas
(Quality, Productivity, Independence)**

| | | | | | |
|---|---|---|--|---|---|
| | | | [Productivity] GA, MS, AR, AL, OH (1,0,0) | | |
| | | GA, MT, AR, OH, ND (.75,.25,0) | | GA, MS, AR, OH, ND (.75,0,.25) | |
| | | | GA, AR, OH, MS, MT (.67,.16,.16) | | GA, MS, AR, OH, ND (.5,0,.5) |
| | CA, MT, ND, GA, AR (.5,.5,0) | | | | |
| | | CA, MT, ND, AR, GA (.42,.42,.16) | | AR, GA, OH, MS, ND (.42,.16,.42) | |
| | | | CA, AR, ND, MT, OH (.33,.33,.33) | | |
| CA, MT, ND, WA, MA (.25,.75,0) | | CA, MT, ND, WA, MA (.16,.67,.16) | | RI, NY, CA, AR, OH (.16,.16,.67) | RI, NY, UT, OR, MS (.25,0,.75) |
| | | | CA, ND, MT, AR, OH (.16,.42,.42) | | |
| CA, DE, MT, WA, MA (0,1,0) [Quality] | CA, WA, MT, MA, DE (0,.75,.25) | | CA, NY, RI MA, ND (0,.5,.5) | RI, NY, CA, OR, UT (0,.25,.75) | RI, NY, OR UT, OK_CIV (0,0,1) [Independence] |

Table 10: Top Ranking States (From Table 9)

| State | Number of #1 Rankings | Number of #1 to #3 Rankings | Number of #1 to #5 Rankings | Common Law Cases (Number of #1 to-#3 Rankings) |
|--------|-----------------------|-----------------------------|-----------------------------|--|
| AR | 1 | 7 | 11 | 5 |
| CA | 9 | 11 | 11 | 5 |
| ND | 0 | 6 | 11 | 0 |
| MT | 0 | 8 | 10 | 1 |
| OH | 0 | 2 | 9 | 0 |
| GA | 5 | 6 | 8 | 0 |
| MS | 0 | 3 | 6 | 9 |
| MA | 0 | 0 | 5 | 0 |
| NY | 0 | 5 | 5 | 8 |
| RI | 4 | 5 | 5 | 7 |
| WA | 0 | 1 | 4 | 0 |
| OR | 0 | 1 | 3 | 2 |
| UT | 0 | 1 | 3 | 4 |
| DE | 0 | 1 | 2 | 4 |
| AL | 0 | 0 | 1 | 11 |
| OK_CIV | 0 | 0 | 1 | 0 |
| MD | 0 | 0 | 0 | 1 |

No state emerges as a clear winner, but a strong case can be made that California has the best high court. It has the most #1 rankings on the triangle chart, and the most #1-3 rankings, and is tied for the most #1-5 rankings. (See Table 10.) The top contenders are Arkansas, North Dakota, Montana, and Georgia. If one focuses on common law cases, where arguably state-specific factors should play the smallest role, then Mississippi, New York, Rhode Island, and Alabama emerge as the top states. The strong performance of southern states is a bit of a surprise.

Compare our overall composite rankings with the three most recent studies, the 2000 Comparato study, the 2007 Dear & Jessen study, and the 2002 Chamber of Commerce survey (overall rankings).

Table 11: Comparison of Rankings of Courts**Best Performers**

| <i>Our study--composite</i> | <i>2000 Comparato citation ranking</i> | <i>1998-2000 Dear & Jessen "followed" citations</i> | <i>2002 Chamber of Commerce Survey – Overall Score</i> |
|-----------------------------|--|---|--|
| Arkansas | California | California | Delaware |
| California | New York | Washington | Virginia |
| North Dakota | Minnesota | Nebraska | Washington |
| Montana | Pennsylvania | Kansas | Kansas |
| Ohio | Colorado | Massachusetts | Iowa |
| Georgia | Michigan | Connecticut | Nebraska |
| Mississippi | Washington | Montana | Colorado |
| Massachusetts | Illinois | Iowa | Utah |
| Rhode Island | New Jersey | Maryland | South Dakota |
| New York | Wisconsin | Texas | Connecticut |

| | | | |
|---|-------|-------|--------|
| Correl. Coeff. between Our Composite Results and the underlying score for each Ranking | 0.139 | 0.673 | -0.158 |
| p-value* | 0.335 | 0.000 | 0.275 |
| Spearman Rank Coeff. between Our Composite Result Ranking and each Ranking | 0.030 | 0.629 | -0.132 |
| p-value** | 0.835 | 0.000 | 0.362 |

Our equally-weighted composite measure is not correlated with the Comparato or Chamber of Commerce rankings (indeed, if anything, our rankings are negatively correlated with the Chamber of Commerce rankings). Only the Dear & Jessen rankings are positively correlated with our composite measure.

When quality measures are broadened through the use of our composite measure, several southern states—Arkansas, Georgia, and Mississippi—appear on the top ten list. Perhaps, judges sitting on the high courts of these states think of their judicial role more in terms of deciding disputes, and less in terms of crafting high-quality opinions.⁴² An alternative view is that cultural differences between southern and non-southern states are great enough that courts do not cite courts from the other region as much as they cite courts from their own region, in which case the greater number of northern states produces a bias in the citation measure. If this is so, then the prior citation studies have undervalued the courts of the southern states.

As discussed in a prior article, elected judges tend to write more opinions, while appointed judges tend to write more-cited opinions.⁴³ The influence of the selection system, then, might also explain why southern states—where electoral systems are more common—do well under our composite measure. Different states, as a function of their selection systems, appear to focus on different aspects of the judicial task. Citations capture but an aspect of that, as do surveys of corporate lawyers. Our goal is to improve on the existing rankings by providing a broader set of measures than prior rankings. The broadening of measures enables us to capture more aspects of the job than the prior rankings have.

IV. Digging Deeper: Ranking Courts While Controlling for State-Specific Factors

One possible objection to our rankings is that we do not control for state-specific factors. Suppose, for example, that the Montana high court is more productive than the California high court (both in the aggregate, and per judge) because cases in Montana are simpler. Montana is a less populous, less commercially complex, more homogenous state, and it is possible that in such states cases can be resolved quickly. Controlling for the complexity of the legal environment, it might turn out that the California court is in fact more productive than the Montana court.

⁴² Cf. Choi, Gulati, & Posner, Professionals or Politicians, *supra*.

⁴³ *Id.*

system related choices, while controlling for factors out of the control of a state-level decisionmaker (such as state population).

Visual inspection of Table 12 reveals that the composite results do not differ much from our “normal” rankings, and indeed the correlation coefficients for each of the rankings are very high (correlation coefficient = 0.8548; significant at the <1% level) (see Appendix B). California has the highest number of number one rankings under both our original composite rankings (see Table 9) and our abnormal composite rankings in Table 12.

V. The U.S. Chamber of Commerce Study: Some Observations

Last, we return to the U.S. Chamber of Commerce surveys. Why do its results differ so much from ours? The simple answer is that we measure different things. Our study measures productivity, influence/quality, and independence. The Chamber of Commerce surveys senior lawyers at corporations that have annual revenues of at least \$100 million. The obvious problem with the Chamber of Commerce survey is that the attitudes of business lawyers probably tell us more about the value of a judicial system for business than about its overall quality.⁴⁴

To probe these differences, we ran regressions of the Chamber of Commerce 2002 overall scores and rankings on various state and court variables. We use an ordinary least squares model where the dependent variable is the Chamber of Commerce overall score for a state and an ordered logit where the dependent variable is the ordinal overall rank. We include a set of variables to assess the importance of politics in the ranking: Republican Governor (defined to equal 1 if the governor is Republican and 0 otherwise); Legis. Republican (defined to equal 1 if the legislature is controlled by Republicans); and Legis. Democrat (defined to equal 1 if the legislature is controlled by Democrats). We use legislatures with split control between Democrats and Republicans as the base category for Legis. Republican and Legis. Democrat. We also include Common Law, defined as the number of property, torts, and commercial law opinions divided by all opinions for a particular state from 1998 to 2000. The Chamber of Commerce survey may look more favorably on states that focus their attention on private law issues important to the business constituency of the Chamber. For state-level variables, we use the same variables we used in our abnormal performance model discussed above.

We also add a number of court-level variables. We include an indicator variable for whether the state selects high court judges through partisan election, non-partisan election, or merit selection (with appointment states as the base category). We include measures for the average high court associate justice salary (Adjusted Associate Justice Salary) and the average partner salary in the state (Adjusted Partner Salary). The salary variables are adjusted for the cost of living for the metro area in which the high court is located in the state. We include an indicator variable for whether the judges on the high court remained the same throughout our sample time period from 1998 to 2000 (Stable Court) and the size of the bench during the 1998 to 2000 period (Number of Active Judges on Bench). We include an indicator variable for whether the judges in a specific court do not face mandatory retirement (No Mandatory

⁴⁴ For related criticisms of U.S. Chamber of Commerce studies, see Elizabeth G. Thornburg, *Judicial Hellholes, Lawsuit Climates, and Bad Social Science: Lessons from West Virginia*, 110 W.Va. L. Rev. 1 (2008).

Retirement). As a measure of resources available to high court judges, we include the average number of clerks per judge for the 1998 to 2000 period (Number of Clerks Per Judge) and an indicator variable for whether the clerks are tenured for at least one year (Long-Term Clerk). To capture the opportunity cost of being a law clerk, the difference between the average salary of an entering associate at law firm in that state and the law clerk salary is used (Law Clerk Opportunity Cost). We include the log of the number of trial cases in the state measured in 1998 (ln(Number of Trial Cases in the State)) and an indicator variable for the presence of an intermediate appellate court (Intermediate Appellate Court). Specific court rules may affect the workload facing judges, thereby affecting the level of judicial output. We lastly include an indicator variable for whether judges face a mandatory publication rule (Mandatory Publication). (Variable definitions are in Appendix C.) Table 13 provides the results.

Table 13: Chamber of Commerce Models

| | Model 1 OLS | Model 2 OLS | Model 3 Ordered Logit | Model 4 Ordered Logit |
|------------------------------|--------------------|---------------------|-----------------------------|-----------------------------|
| Dependent Variable | CC Score | CC Score | CC Rank | CC Rank |
| Independent Variables | | | | |
| Republican Governor | 0.005 (0.06) | 0.051 (0.33) | -0.223 (-0.36) | -0.249 (-0.22) |
| Legis. Republican | 0.030 (0.28) | -0.018 (-0.17) | 0.334 (0.45) | -0.031 (-0.03) |
| Legis. Democrat | -0.216* (-2.14) | -0.037 (-0.24) | 1.591* (2.22) | 0.345 (0.27) |
| Common Law | 0.487 (0.89) | 1.164** (3.10) | -6.720* (-2.17) | -20.279** (-4.54) |
| State Age | 0.004+ (1.77) | 0.005* (2.54) | -0.015 (-1.26) | -0.043* (-2.47) |
| ln(State Population) | -0.833 (-1.68) | -0.801+ (-2.03) | 5.281 (1.61) | 11.941* (2.39) |
| ln(Pop. in Border States) | 0.075 (1.18) | -0.045 (-0.63) | -0.739+ (-1.76) | -0.505 (-0.74) |
| Crime Index | 0.000* (2.10) | 0.000* (2.16) | -0.001+ (-1.94) | -0.001* (-2.49) |
| Median Age of Population | 0.012 (0.48) | 0.026 (1.03) | -0.159 (-0.95) | -0.272 (-1.15) |
| ln(Gross State Product) | 0.754 (1.53) | 0.726* (2.15) | -4.712 (-1.46) | -11.435* (-2.47) |
| State Median Income | 0.000 (0.70) | 0.000 (1.17) | 0.000 (-1.3) | 0.000 (-1.58) |
| Black Pop. Fraction | -2.477* (-2.47) | -2.664** (-3.31) | 14.197* (2.38) | 34.060** (3.48) |

| | | | | |
|-------------------------------|-------------------|--------------------------------|------------------------------|--------------------------------|
| Citizen Ideology Score | -0.004 (-0.81) | -0.004 (-1.02) | 0.058 ⁺ (1.83) | 0.082 ⁺ (1.78) |
| Election Partisan | | 0.098 (0.51) | | -0.237 (-0.17) |
| Election Non-Partisan | | 0.238 ⁺ (1.79) | | -1.828 (-1.21) |
| Merit Plan | | 0.199 (1.51) | | -3.388* (-2.40) |
| Adj. Associate Justice Salary | | 0.000 (-0.19) | | 0.003 (0.67) |
| Adjusted Partner Salary | | 0.000 (1.40) | | -0.002 ⁺ (-1.73) |
| Stable Court | | -0.058 (-0.65) | | -1.075 (-0.99) |
| Number of Active Judges | | -0.083** (-2.87) | | 0.857* (2.07) |
| No Mandatory Retirement | | 0.126 (1.10) | | -1.826 (-1.41) |
| Long-Term Clerk | | 0.012 (0.14) | | 0.262 (0.34) |
| Number of Clerks Per Judge | | -0.262** (-3.83) | | 3.764** (4.51) |
| Law Clerk Opportunity Cost | | -0.004 ⁺ (-2.07) | | 0.068* (2.56) |
| ln(Trial Cases in the State) | | 0.162* (2.68) | | -2.198* (-2.52) |
| Intermediate Appellate Court | | 0.094 (0.42) | | -0.444 (-0.24) |
| Mandatory Publication | | -0.002 (-0.02) | | -1.092 (-0.99) |
| Constant | -7.360 (-1.66) | -9.139* (-2.52) | | |
| N | 50 | 49 | 50 | 49 |
| Adjusted R2 or Pseudo R2 | 0.487 | 0.721 | 0.113 | 0.278 |

Models 1 and 2 use the raw Chamber of Commerce score (from 0 to 4, best), while Models 3 and 4 use the Chamber of Commerce ranking (from 1, best, to 50). Because high scores are good and low ranks are bad, the coefficients should have opposite signs (and they do). Models 1 and 3 control for state-specific factors only; models 2 and 4 control for court-specific factors as well.

The following types of states do worse in Chamber of Commerce surveys: those with Democratic legislatures (in Models 1 and 3);⁴⁵ those with fewer common law cases (as a proportion of all cases); younger states; more populous states; poorer states; states with larger African-American populations; and states with more liberal populations (in Models 3 and 4). As for institutional factors, states with more active judges do worse; so do states with more law clerks; and so do states with fewer trials.

A study by Russell Sobel and Joshua Hall runs a similar regression but finds that states with electoral systems have the lowest Chamber of Commerce ratings.⁴⁶ We suspect that the difference is attributable to our inclusion of a large number of control variables that are correlated with the type of selection system (they also used Chamber of Commerce ratings from 2004, whereas we used 2002 ratings). They also found that Republican-controlled state supreme courts during their period had a higher judicial quality rating than Democratic-controlled state supreme courts.

It is not surprising that business lawyers do not like the judicial systems in more liberal and poorer states. No doubt in such states populist tendencies affect the performance of judges, or result in the appointment or election of judges who place less weight on the interests of large businesses than judges in more conservative, commercial, or wealthier states. But this is not the same thing as saying that states that do poorly on the Chamber of Commerce surveys have bad judicial systems.

Unlike the Chamber of Commerce rankings, our objective measures provide transparency. Consumers of our ranking are able to determine the constituent components of our rankings (number of opinions per judge year, outside citations per judge year, and independence) and pick and choose among them according to their own preferences (such as in our triangle charts above). The Chamber of Commerce, in contrast, depends on surveys and therefore indirectly incorporates the biases of those being surveyed. The Chamber of Commerce rankings consequently do not provide much transparency; rather, the respondents of the survey are much like a black box. Without transparency, those factors that underlay the Chamber of Commerce rankings may very well not match the preferences of those who utilize state court rankings (such as legislators determining whether to pay the state judges more or an electorate determining whether to vote for judges of a particular state court). The Chamber of Commerce may rank judges with more expertise at common law cases higher than judges with more expertise on public law cases; the users of the rankings, however, may care greatly about how public law cases are determined. Moreover, outside of academic articles (such as ours) the magnitude of this tendency within the Chamber of Commerce rankings may not be readily apparent.

Our measures also serve an information-forcing function. Our overall composite rankings are different from the Chamber of Commerce overall rankings. Indeed, they are

⁴⁵ Democratic legislatures do worse compared with the base category of split legislatures in Models 1 and 3. The coefficient on Legis. Democrat loses significance however once state court level controls are added. In addition, the difference between Legis. Democrat and Legis. Republican is significant at the 10% level for Model 1 (although the difference is insignificant in the other models).

⁴⁶ Sobel & Hall, *supra* at 75.

negatively correlated. The presence of this discrepancy naturally leads to the question: why the difference? We've attempted an answer in this section, determining the factors that correlate with the Chamber of Commerce rankings. Our hope is that our study will shift the burden to the Chamber of Commerce to explain and justify their rankings more fully. Why is it that California does so well in our rankings (and other academic rankings), but does so poorly in the Chamber of Commerce ranking (with an overall ranking of 45th out of 50 states)?

Conclusion

Many people are uncomfortable with rankings. They argue that rankings unavoidably disregard important aspects of the ranked institution's performance and encourage people to compete with respect to only measurable aspects of performance. Competitions to perform well on rankings then result in a downward spiral as institutions neglect important but hard-to-measure aspects of their missions in order to improve their rank.

We agree that rankings can be misused, but as far as state courts are concerned, the genie is out of the bottle. Given the dominance of the U.S. Chamber of Commerce surveys, and significant questions about their usefulness, new rankings should be encouraged rather than shunned. The challenge is to construct performance measures that are useful and accurate. We have built on earlier work, and have no doubt that others will be able to improve on our measures.

We have presented our rankings cautiously, recognizing that readers will weight aspects of judicial performance differently. We urge readers to treat the rankings as an *information-forcing* device. Assume that a low ranking creates a prima facie case that a state high court is low-quality, but allow its defenders to advance arguments as to why special circumstances may account for the court's performance. If the explanation rings false, then it might be a good idea to urge reform. And courts, other scholars, and other interested parties should feel free to develop their own rankings. Competition to develop rankings should lead to greater information about courts. Concern about neglect for difficult-to-measure aspects of performance should encourage scholars to develop new measurement instruments, such as surveys that are distributed to a more representative sample of the population than those financed by the U.S. Chamber of Commerce. If multiple rankings converge, then the case for reform of states high courts that repeatedly appear at the bottom will be strengthened.

Appendix A: Common Law Areas Only

Number of Opinions (Common Law Areas Only)

| <i>State</i> | <i>Sel. System</i> | <i>Opinions</i> | <i>Judge Years</i> | <i>Opinions/Year</i> |
|--------------|--------------------|-----------------|--------------------|----------------------|
| AL | PE | 860 | 30 | 28.667 |
| MS | PE | 502 | 29 | 17.310 |
| AR | PE | 304 | 21 | 14.476 |
| MT | NE | 289 | 21 | 13.762 |
| PA | PE | 284 | 21 | 13.524 |
| GA | NE | 282 | 21 | 13.429 |
| ID | NE | 214 | 16 | 13.375 |
| OH | NE | 276 | 21 | 13.143 |
| ME | A | 340 | 26 | 13.077 |
| UT | M | 211 | 17 | 12.412 |
| NE | M | 266 | 23 | 11.565 |
| VA | A | 236 | 21 | 11.238 |
| ND | NE | 170 | 16 | 10.625 |
| WY | M | 158 | 15 | 10.533 |
| SD | M | 153 | 15 | 10.200 |
| AK | M | 157 | 18 | 8.722 |
| CT | A | 199 | 23 | 8.652 |
| IA | M | 232 | 28 | 8.286 |
| TX_CIV | PE | 211 | 27 | 7.815 |
| LA | NE | 183 | 24 | 7.625 |
| MD | M | 166 | 22 | 7.545 |
| WI | NE | 157 | 21 | 7.476 |
| RI | A | 112 | 15 | 7.467 |
| NY | A | 159 | 22 | 7.227 |
| CA | M | 150 | 21 | 7.143 |
| NH | A | 120 | 17 | 7.059 |
| MI | NE | 166 | 24 | 6.917 |
| WV | PE | 102 | 15 | 6.800 |
| IN | M | 99 | 15 | 6.600 |
| IL | PE | 143 | 22 | 6.500 |
| WA | NE | 180 | 28 | 6.429 |
| VT | A | 96 | 15 | 6.400 |
| OK_CIV | M | 179 | 28 | 6.393 |
| KS | M | 132 | 21 | 6.286 |
| MN | NE | 150 | 24 | 6.250 |
| SC | A | 90 | 16 | 5.625 |
| FL | M | 112 | 21 | 5.333 |
| KY | NE | 111 | 22 | 5.045 |
| CO | M | 115 | 23 | 5.000 |
| MA | A | 114 | 23 | 4.957 |
| MO | M | 103 | 22 | 4.682 |
| HI | A | 83 | 18 | 4.611 |
| NJ | A | 121 | 27 | 4.481 |
| TN | M | 69 | 16 | 4.313 |

| | | | | |
|----|----|----|----|-------|
| DE | A | 61 | 15 | 4.067 |
| OR | NE | 77 | 21 | 3.667 |
| NC | PE | 84 | 23 | 3.652 |
| NV | NE | 59 | 18 | 3.278 |
| NM | PE | 35 | 15 | 2.333 |
| AZ | M | 29 | 15 | 1.933 |

Out-of-State Citations to Majority Opinions (Common Law Areas Only)

| <i>State</i> | <i>Sel. System</i> | <i>Citations</i> | <i>Judge Years</i> | <i>Citations/Year</i> |
|--------------|--------------------|------------------|--------------------|-----------------------|
| DE | A | 246 | 15 | 16.400 |
| CA | M | 247 | 21 | 11.762 |
| MD | M | 205 | 22 | 9.318 |
| WA | NE | 237 | 28 | 8.464 |
| MT | NE | 170 | 21 | 8.095 |
| NY | A | 175 | 22 | 7.955 |
| AL | PE | 237 | 30 | 7.900 |
| VA | A | 163 | 21 | 7.762 |
| NJ | A | 205 | 27 | 7.593 |
| ND | NE | 119 | 16 | 7.438 |
| IA | M | 188 | 28 | 6.714 |
| CT | A | 153 | 23 | 6.652 |
| CO | M | 151 | 23 | 6.565 |
| TX_CIV | PE | 176 | 27 | 6.519 |
| IL | PE | 138 | 22 | 6.273 |
| OH | NE | 130 | 21 | 6.190 |
| WV | PE | 92 | 15 | 6.133 |
| PA | PE | 126 | 21 | 6.000 |
| KS | M | 125 | 21 | 5.952 |
| IN | M | 89 | 15 | 5.933 |
| AR | PE | 120 | 21 | 5.714 |
| MA | A | 131 | 23 | 5.696 |
| AK | M | 101 | 18 | 5.611 |
| SD | M | 81 | 15 | 5.400 |
| SC | A | 84 | 16 | 5.250 |
| ME | A | 134 | 26 | 5.154 |
| MN | NE | 123 | 24 | 5.125 |
| WI | NE | 104 | 21 | 4.952 |
| TN | M | 77 | 16 | 4.813 |
| NE | M | 110 | 23 | 4.783 |
| FL | M | 98 | 21 | 4.667 |
| WY | M | 69 | 15 | 4.600 |
| MS | PE | 131 | 29 | 4.517 |
| UT | M | 74 | 17 | 4.353 |
| ID | NE | 67 | 16 | 4.188 |
| MI | NE | 99 | 24 | 4.125 |
| HI | A | 74 | 18 | 4.111 |
| RI | A | 61 | 15 | 4.067 |
| VT | A | 57 | 15 | 3.800 |
| NH | A | 62 | 17 | 3.647 |
| AZ | M | 52 | 15 | 3.467 |
| NM | PE | 49 | 15 | 3.267 |
| OR | NE | 68 | 21 | 3.238 |
| NV | NE | 58 | 18 | 3.222 |
| GA | NE | 65 | 21 | 3.095 |
| OK_CIV | M | 84 | 28 | 3.000 |

| | | | | |
|----|----|----|----|-------|
| NC | PE | 65 | 23 | 2.826 |
| LA | NE | 59 | 24 | 2.458 |
| MO | M | 51 | 22 | 2.318 |
| KY | NE | 37 | 22 | 1.682 |

Common Law Only Equal Weight Composite Ranking

| <i>State</i> | <i>Standard Dev. of Total Opinion Score</i> | <i>Standard Dev. of Outside Citation Score</i> | <i>Standard Dev. of Indep Score</i> | <i>Equal Weight Composite Score</i> |
|--------------|---|--|---|---|
| AL | 4.417 | 1.417 | -0.608 | 1.742 |
| MS | 1.957 | 0.810 | 0.641 | 1.136 |
| NY | -0.228 | 1.427 | 1.950 | 1.050 |
| UT | 0.895 | 0.781 | 1.406 | 1.027 |
| RI | -0.176 | 0.730 | 2.489 | 1.014 |
| AR | 1.343 | 1.025 | 0.626 | 0.998 |
| OH | 1.054 | 1.110 | 0.670 | 0.945 |
| MT | 1.188 | 1.452 | -0.340 | 0.766 |
| ND | 0.508 | 1.334 | 0.400 | 0.748 |
| CA | -0.246 | 2.110 | 0.363 | 0.742 |
| PA | 1.136 | 1.076 | -0.030 | 0.728 |
| NE | 0.712 | 0.858 | 0.565 | 0.712 |
| TX_CIV | -0.100 | 1.169 | 0.789 | 0.619 |
| GA | 1.116 | 0.555 | -0.016 | 0.552 |
| MD | -0.159 | 1.672 | -0.016 | 0.499 |
| ME | 1.040 | 0.925 | -0.487 | 0.492 |
| OK_CIV | -0.408 | 0.538 | 1.284 | 0.471 |
| VA | 0.641 | 1.392 | -0.622 | 0.471 |
| WV | -0.320 | 1.100 | 0.625 | 0.468 |
| IL | -0.385 | 1.125 | 0.632 | 0.457 |
| SD | 0.416 | 0.969 | -0.016 | 0.456 |
| NH | -0.264 | 0.654 | 0.963 | 0.451 |
| IA | 0.002 | 1.204 | 0.113 | 0.440 |
| OR | -0.999 | 0.581 | 1.724 | 0.435 |
| WA | -0.401 | 1.518 | 0.018 | 0.379 |
| DE | -0.912 | 2.942 | -1.007 | 0.341 |
| KS | -0.432 | 1.068 | 0.183 | 0.273 |
| LA | -0.141 | 0.441 | 0.411 | 0.237 |
| WY | 0.489 | 0.825 | -0.678 | 0.212 |
| FL | -0.638 | 0.837 | 0.429 | 0.209 |
| MA | -0.720 | 1.022 | 0.297 | 0.200 |
| VT | -0.407 | 0.682 | 0.287 | 0.187 |
| ID | 1.104 | 0.751 | -1.364 | 0.164 |
| TN | -0.859 | 0.863 | 0.461 | 0.155 |
| NJ | -0.822 | 1.362 | -0.098 | 0.147 |
| AK | 0.096 | 1.007 | -0.711 | 0.131 |
| MN | -0.439 | 0.919 | -0.095 | 0.128 |
| SC | -0.575 | 0.942 | -0.016 | 0.117 |
| CO | -0.710 | 1.178 | -0.497 | -0.010 |
| AZ | -1.374 | 0.622 | 0.592 | -0.053 |
| HI | -0.794 | 0.737 | -0.116 | -0.058 |
| CT | 0.081 | 1.193 | -1.687 | -0.138 |
| KY | -0.700 | 0.302 | -0.216 | -0.205 |
| NM | -1.288 | 0.586 | -0.016 | -0.239 |
| WI | -0.174 | 0.888 | -1.440 | -0.242 |

| | | | | |
|----|--------|-------|--------|--------|
| NV | -1.083 | 0.578 | -0.272 | -0.259 |
| IN | -0.364 | 1.064 | -2.056 | -0.452 |
| MO | -0.779 | 0.416 | -1.245 | -0.536 |
| NC | -1.002 | 0.507 | -1.158 | -0.551 |
| MI | -0.295 | 0.740 | -3.111 | -0.889 |

For each measure (total opinions per judge year, outside citations per judge year, and independence) we compute the standard deviation from the mean of the sample for each state. For those states without an independence score, we substitute the mean independence score for the other states in computing the standard deviation. We then combine the three standard deviation scores with equal weights to generate the equal weighted composite score.

Correlation coefficient between common law composite rankings and composite rankings (all subject matter areas) in Table 9 = 0.754 (t-statistic = 8.811; significant at the <1% level).

Appendix B: Abnormal Score Rankings

Number of Opinions (Abnormal Score)

| <i>State</i> | <i>Sel. System</i> | <i>Opinions</i> | <i>Judge Years</i> | <i>Ab. Opinions Per Judge Year</i> |
|--------------|--------------------|-----------------|--------------------|--|
| GA | NE | 1225 | 21 | 29.712 |
| OH | NE | 989 | 21 | 21.263 |
| AR | PE | 1038 | 21 | 18.589 |
| PA | PE | 941 | 21 | 16.909 |
| MT | NE | 968 | 21 | 15.231 |
| IN | M | 573 | 15 | 13.831 |
| CT | AP | 707 | 23 | 13.418 |
| ND | NE | 703 | 16 | 13.145 |
| WY | M | 548 | 15 | 12.623 |
| FL | M | 709 | 21 | 11.214 |
| AL | PE | 1417 | 30 | 10.754 |
| MA | AP | 608 | 23 | 7.800 |
| UT | M | 420 | 17 | 6.501 |
| IL | PE | 642 | 22 | 6.372 |
| NE | M | 699 | 23 | 5.298 |
| CA | M | 605 | 21 | 4.451 |
| MS | PE | 1437 | 29 | 3.082 |
| AK | M | 446 | 18 | 2.201 |
| NV | NE | 259 | 18 | 2.174 |
| WA | NE | 578 | 28 | 2.096 |
| IA | M | 715 | 28 | 1.076 |
| ID | NE | 477 | 16 | -0.054 |
| AZ | M | 172 | 15 | -1.335 |
| OR | NE | 245 | 21 | -1.384 |
| TN | M | 373 | 16 | -2.386 |
| MN | NE | 452 | 24 | -2.716 |
| CO | M | 386 | 23 | -2.792 |
| MD | M | 523 | 22 | -3.084 |
| KS | M | 483 | 21 | -3.276 |
| TX_CRIM | PE | 583 | 26 | -3.396 |
| SD | M | 366 | 15 | -4.101 |
| ME | AP | 718 | 26 | -4.741 |
| NM | PE | 151 | 15 | -5.087 |
| RI | AP | 273 | 15 | -6.133 |
| HI | AP | 225 | 18 | -6.422 |
| DE | AP | 163 | 15 | -6.525 |
| WI | NE | 386 | 21 | -6.733 |
| VT | AP | 274 | 15 | -6.746 |
| NH | AP | 366 | 17 | -6.881 |
| NJ | AP | 376 | 27 | -7.715 |
| SC | AP | 387 | 16 | -8.702 |
| NY | AP | 380 | 22 | -8.963 |
| WV | PE | 346 | 15 | -9.003 |
| MI | NE | 389 | 24 | -9.120 |

| | | | | |
|---------|----|-----|----|---------|
| OK_CIV | M | 435 | 28 | -10.752 |
| LA | NE | 525 | 24 | -10.913 |
| VA | AP | 413 | 21 | -11.563 |
| OK_CRIM | M | 230 | 16 | -11.912 |
| KY | NE | 411 | 22 | -12.525 |
| TX_CIV | PE | 347 | 27 | -12.967 |
| MO | M | 252 | 22 | -13.324 |
| NC | PE | 262 | 23 | -16.490 |

Abnormal total opinions per judge-year is calculated by first estimating a model using total opinions per judge-year as the dependent variable and state-level controls for the age of the state, the log of the population, the log of the aggregate population of neighboring states, crime rate, median age of the population, log of gross state product, and median income level for 1997. We estimate the model using pooled state-level data over the 1998 to 2000 sample period using ordinary least square as follows:

$$\text{Total opinions per judge-year}_i = \alpha + \sum \beta_{ji} \text{State Controls}_{ji} + \epsilon_i$$

We second compute predicted scores total opinions per judge-year using the model and then calculate the difference between the actual and predicted scores. We term this residual the “abnormal” score for total opinions per judge-year (e.g., the abnormal total opinions per judge year for a state = the actual total opinions per judge year minus the predicted total opinions per judge year).

Correlation coefficient between abnormal opinions per judge-year score and opinions per judge year score (all subject matter areas) in Table 4 = 0.8548 (t-statistic = 11.64; significant at the <1% level).

Out-of-State Citations to Majority Opinions (Abnormal Score)

| <i>State</i> | <i>Sel. System</i> | <i>Citations</i> | <i>Judge Years</i> | <i>Ab. Citations Per Judge Year</i> |
|--------------|--------------------|------------------|--------------------|---|
| CA | M | 709 | 21 | 18.472 |
| MT | NE | 468 | 21 | 10.720 |
| DE | AP | 336 | 15 | 7.309 |
| WA | NE | 611 | 28 | 7.047 |
| AR | PE | 337 | 21 | 5.968 |
| KS | M | 388 | 21 | 5.800 |
| ND | NE | 316 | 16 | 5.300 |
| MD | M | 448 | 22 | 4.597 |
| TN | M | 242 | 16 | 4.475 |
| SC | AP | 245 | 16 | 4.142 |
| NE | M | 371 | 23 | 3.483 |
| AZ | M | 187 | 15 | 3.467 |
| IN | M | 244 | 15 | 3.224 |
| MA | AP | 469 | 23 | 2.811 |
| OH | NE | 337 | 21 | 2.411 |
| NM | PE | 143 | 15 | 1.790 |
| CO | M | 382 | 23 | 1.743 |
| IA | M | 403 | 28 | 1.153 |
| IL | PE | 354 | 22 | 0.970 |
| PA | PE | 336 | 21 | 0.631 |
| WV | PE | 206 | 15 | 0.526 |
| MS | PE | 322 | 29 | 0.334 |
| GA | NE | 262 | 21 | 0.269 |
| SD | M | 196 | 15 | 0.155 |
| VT | AP | 206 | 15 | 0.042 |
| WY | M | 184 | 15 | -0.001 |
| AL | PE | 325 | 30 | -0.523 |
| CT | AP | 405 | 23 | -0.647 |
| NJ | AP | 474 | 27 | -0.708 |
| AK | M | 273 | 18 | -1.021 |
| UT | M | 134 | 17 | -1.294 |
| FL | M | 208 | 21 | -1.428 |
| ID | NE | 148 | 16 | -1.436 |
| NY | AP | 301 | 22 | -2.526 |
| MN | NE | 321 | 24 | -2.573 |
| NH | AP | 225 | 17 | -2.925 |
| LA | NE | 159 | 24 | -3.178 |
| VA | AP | 261 | 21 | -3.310 |
| NV | NE | 157 | 18 | -3.345 |
| WI | NE | 256 | 21 | -3.381 |
| TX_CIV | PE | 243 | 27 | -3.451 |
| OK_CIV | M | 160 | 28 | -3.621 |
| OR | NE | 137 | 21 | -4.398 |
| ME | AP | 284 | 26 | -4.547 |
| NC | PE | 170 | 23 | -5.181 |
| KY | NE | 145 | 22 | -5.323 |

| | | | | |
|---------|----|-----|----|--------|
| OK_CRIM | M | 59 | 16 | -5.648 |
| RI | AP | 131 | 15 | -5.895 |
| MI | NE | 208 | 24 | -6.027 |
| MO | M | 115 | 22 | -7.277 |
| TX_CRIM | PE | 105 | 26 | -8.412 |
| HI | AP | 150 | 18 | -8.763 |

Abnormal outside state citations per judge-year is calculated by first estimating a model using outside state citations per judge-year as the dependent variable and state-level controls for the age of the state, the log of the population, the log of the aggregate population of neighboring states, crime rate, median age of the population, log of gross state product, and median income level for 1997. We estimate the model using pooled state-level data for our dependent variables over the 1998 to 2000 sample period using ordinary least square as follows:

$$\text{Outside citations per judge-year}_i = \alpha + \sum \beta_{ji} \text{State Controls}_{ji} + \varepsilon_i$$

We second compute predicted scores for outside state citations per judge-year using the model and then calculate the difference between the actual and predicted scores. We term this residual the “abnormal” score for the outside state citations per judge-year.

Correlation coefficient between abnormal independence score and independence score (all subject matter areas) in Table 5 = 0.8905 (t-statistic = 13.84; significant at the <1% level).

Independence (Abnormal Score)

| <i>State</i> | <i>Sel. System</i> | <i>Independence</i> | <i>Judge Years</i> | <i>Ab. Indep.</i> |
|--------------|--------------------|---------------------|--------------------|-------------------|
| OK_CIV | M | 0.086 | 28 | 0.154 |
| NY | AP | 0.146 | 22 | 0.150 |
| NH | AP | 0.057 | 17 | 0.138 |
| RI | AP | 0.194 | 15 | 0.135 |
| OR | NE | 0.126 | 21 | 0.125 |
| NE | M | 0.022 | 23 | 0.087 |
| MS | PE | 0.028 | 29 | 0.075 |
| IL | PE | 0.028 | 22 | 0.065 |
| NJ | AP | -0.038 | 27 | 0.061 |
| OH | NE | 0.031 | 21 | 0.059 |
| KS | M | -0.013 | 21 | 0.053 |
| WV | PE | 0.027 | 15 | 0.037 |
| MD | M | -0.030 | 22 | 0.037 |
| FL | M | 0.009 | 21 | 0.036 |
| LA | NE | 0.008 | 24 | 0.033 |
| IA | M | -0.019 | 28 | 0.032 |
| AZ | M | 0.024 | 15 | 0.032 |
| UT | M | 0.097 | 17 | 0.029 |
| AR | PE | 0.027 | 21 | 0.028 |
| AK | M | -0.093 | 18 | 0.027 |
| PA | PE | -0.032 | 21 | 0.026 |
| WA | NE | -0.027 | 28 | 0.026 |
| TX_CIV | PE | 0.042 | 27 | 0.025 |
| TN | M | 0.012 | 16 | 0.017 |
| ND | NE | 0.007 | 16 | 0.017 |
| MN | NE | -0.038 | 24 | 0.015 |
| CA | M | 0.003 | 21 | 0.008 |
| VA | AP | -0.085 | 21 | 0.006 |
| HI | AP | -0.039 | 18 | 0.000 |
| SD | M | -0.030 | 15 | -0.004 |
| GA | NE | -0.030 | 21 | -0.005 |
| CO | M | -0.074 | 23 | -0.009 |
| KY | NE | -0.048 | 22 | -0.010 |
| MA | AP | -0.002 | 23 | -0.011 |
| NV | NE | -0.053 | 18 | -0.012 |
| WY | M | -0.090 | 15 | -0.018 |
| SC | AP | -0.030 | 16 | -0.028 |
| AL | PE | -0.084 | 30 | -0.037 |
| VT | AP | -0.003 | 15 | -0.039 |
| TX_CRIM | PE | -0.032 | 26 | -0.049 |
| MT | NE | -0.060 | 21 | -0.050 |
| DE | AP | -0.119 | 15 | -0.054 |
| NM | PE | -0.030 | 15 | -0.064 |
| OK_CRIM | M | -0.140 | 16 | -0.073 |
| WI | NE | -0.158 | 21 | -0.088 |
| CT | AP | -0.180 | 23 | -0.101 |

| | | | | |
|----|----|--------|----|--------|
| ME | AP | -0.073 | 26 | -0.108 |
| ID | NE | -0.151 | 16 | -0.110 |
| NC | PE | -0.133 | 23 | -0.114 |
| MO | M | -0.141 | 22 | -0.115 |
| IN | M | -0.213 | 15 | -0.175 |
| MI | NE | -0.308 | 24 | -0.259 |

The abnormal independence score is calculated by first estimating a model using the independence score as the dependent variable and state-level controls for the age of the state, the log of the population, the log of the aggregate population of neighboring states, crime rate, median age of the population, log of gross state product, and median income level for 1997. We estimate the model using pooled state-level data for our dependent variables over the 1998 to 2000 sample period using ordinary least square as follows:

$$\text{Independence}_i = \alpha + \sum \beta_{ji} \text{State Controls}_{ji} + \varepsilon_i$$

We second compute predicted scores for independence using the model and then calculate the difference between the actual and predicted scores. For those states without an independence score, we substitute the mean independence score for the other states as the actual independence score. We term this residual the “abnormal” score for independence.

Correlation coefficient between abnormal independence score and independence score (all subject matter areas) in Table 8 = 0.905 (t-statistic = 15.04; significant at the <1% level).

Abnormal Equal Weight Composite Ranking

| <i>State</i> | <i>Standard Dev. of Abnormal Total Opinion Score</i> | <i>Standard Dev. of Abnormal Outside Citation Score</i> | <i>Standard Dev. of Abnormal Indep Score</i> | <i>Equal Weight Composite Score</i> |
|--------------|--|---|--|---|
| CA | 0.432 | 3.702 | 0.102 | 1.412 |
| AR | 1.806 | 1.196 | 0.355 | 1.119 |
| OH | 2.065 | 0.483 | 0.742 | 1.097 |
| MT | 1.479 | 2.149 | -0.629 | 1.000 |
| GA | 2.886 | 0.054 | -0.060 | 0.960 |
| ND | 1.277 | 1.062 | 0.211 | 0.850 |
| NE | 0.515 | 0.698 | 1.092 | 0.768 |
| PA | 1.642 | 0.127 | 0.329 | 0.699 |
| WA | 0.204 | 1.412 | 0.322 | 0.646 |
| IL | 0.619 | 0.194 | 0.813 | 0.542 |
| KS | -0.318 | 1.163 | 0.662 | 0.502 |
| MS | 0.299 | 0.067 | 0.937 | 0.434 |
| FL | 1.089 | -0.286 | 0.448 | 0.417 |
| MA | 0.758 | 0.563 | -0.135 | 0.395 |
| MD | -0.300 | 0.921 | 0.463 | 0.361 |
| WY | 1.226 | 0.000 | -0.227 | 0.333 |
| AZ | -0.130 | 0.695 | 0.395 | 0.320 |
| TN | -0.232 | 0.897 | 0.213 | 0.293 |
| UT | 0.631 | -0.259 | 0.364 | 0.245 |
| IA | 0.104 | 0.231 | 0.397 | 0.244 |
| OR | -0.134 | -0.882 | 1.562 | 0.182 |
| NY | -0.871 | -0.506 | 1.872 | 0.165 |
| AL | 1.045 | -0.105 | -0.457 | 0.161 |
| NH | -0.668 | -0.586 | 1.722 | 0.156 |
| AK | 0.214 | -0.205 | 0.337 | 0.115 |
| DE | -0.634 | 1.465 | -0.677 | 0.052 |
| OK_CIV | -1.044 | -0.726 | 1.923 | 0.051 |
| CO | -0.271 | 0.349 | -0.118 | -0.013 |
| RI | -0.596 | -1.182 | 1.693 | -0.028 |
| CT | 1.303 | -0.130 | -1.266 | -0.031 |
| NJ | -0.749 | -0.142 | 0.757 | -0.045 |
| IN | 1.343 | 0.646 | -2.184 | -0.065 |
| WV | -0.874 | 0.105 | 0.467 | -0.101 |
| SC | -0.845 | 0.830 | -0.349 | -0.121 |
| SD | -0.398 | 0.031 | -0.046 | -0.138 |
| MN | -0.264 | -0.516 | 0.186 | -0.198 |
| NV | 0.211 | -0.670 | -0.146 | -0.202 |
| NM | -0.494 | 0.359 | -0.794 | -0.310 |
| VT | -0.655 | 0.008 | -0.482 | -0.376 |
| LA | -1.060 | -0.637 | 0.414 | -0.428 |
| TX_CIV | -1.260 | -0.692 | 0.307 | -0.548 |
| ID | -0.005 | -0.288 | -1.378 | -0.557 |
| VA | -1.123 | -0.663 | 0.071 | -0.572 |
| HI | -0.624 | -1.756 | 0.003 | -0.792 |

| | | | | |
|---------|--------|--------|--------|--------|
| KY | -1.217 | -1.067 | -0.126 | -0.803 |
| WI | -0.654 | -0.678 | -1.100 | -0.811 |
| TX_CRIM | -0.330 | -1.686 | -0.618 | -0.878 |
| ME | -0.461 | -0.911 | -1.350 | -0.907 |
| OK_CRIM | -1.157 | -1.132 | -0.909 | -1.066 |
| NC | -1.602 | -1.038 | -1.431 | -1.357 |
| MO | -1.294 | -1.459 | -1.434 | -1.396 |
| MI | -0.886 | -1.208 | -3.241 | -1.778 |

For each measure (abnormal total opinions per judge year, abnormal outside citations per judge year, and abnormal independence) we compute the standard deviation from the mean of the sample for each state. We then combine the three standard deviation scores with equal weights to generate the equal weighted composite score.

Correlation coefficient between abnormal composite rankings and composite rankings (all subject matter areas) in Table 9 = 0.936 (t-statistic = 18.84; significant at the <1% level).

Appendix C: Variable Definitions

Court-Level Variable Definitions

| Variable | Definition |
|------------------------------------|--|
| Adjusted Associate Justice Salary | The associate justice salary reported in 1997 divided by the cost of living adjustment for 1998 (in thousands of dollars) |
| Adjusted Partner Salary | The average partner salary in 1998 divided by the cost of living adjustment for 1998 (in thousands of dollars) |
| Stable Court | Indicator variable equal to 1 if the state high court justices stayed the same from 1998 to 2000 and 0 otherwise. |
| Number of Active Judges on Bench | Number of judges who were active at any time from 1998 to 2000 for the state in question. |
| No Mandatory Retirement | Indicator variable equal to 1 if the judges on the state high court do not face mandatory retirement and 0 otherwise. |
| Long-Term Clerk | Indicator variable equal to 1 if state clerks are tenured for more than one year and 0 if tenure is 1 year or less. |
| Number of Clerks Per Judge | Average number of clerks per judge in the 1998 to 2000 time period. |
| Law Clerk Opportunity Cost | The difference between the average salary of an entering associate at law firm in that state and the law clerk salary (in thousands of dollars). |
| Number of Trial Cases in the State | Number of trial cases in the entire state in 1998 (in thousands). |
| Intermediate Appellate Court | Indicator variable equal to 1 if the opinion is in opposition to the opinion of another judge in the same case and 0 otherwise. In the case of a dissenting opinion written by the judge in question, the opinion is treated as in active opposition to the majority opinion. In the case of a majority opinion by the judge in question, active opposition exists if the majority opinion is opposed by a dissenting opinion. |
| Mandatory Publication | Indicator variable equal to 1 if judges on the state high court face a mandatory publication rule and 0 otherwise. |

State-Level Variable Definitions

| Variable | Definition |
|---------------------------|---|
| State Age | Age of the state in 1997. For year-level data this is defined as the difference between the year in question and the year of admission of the state into the United States. |
| State Population | The population of the state in millions measured in 1997. |
| Border Population | Total population of all bordering states of the state in question (measured as of 1997 in millions). |
| Crime Index | Overall crime rate for the state (including property and violent crime) per 100,000 people from the FBI Crime Report for 1997. |
| Gross State Product | Gross State Product (measured as of 1998 in billion of dollars). |
| Median Age of Population | Median age of state population (2000 U.S. Census) |
| State Median Income | Median per capita income of the state population (2000 U.S. Census in thousands of dollars) |
| Black Population Fraction | Fraction of the population comprised of blacks as obtained from the 2000 Census. |
| Citizen Ideology Score | Measure of citizen ideology based on election results in each district, which are then used to compute a statewide average (ultimately based on interest group ratings of a given state's federal congressional delegation) (from Berry et al. 1998). |

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