THE POWER OF POSNER: A STUDY OF PRESTIGE AND INFLUENCE IN THE FEDERAL JUDICIARY

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I. INTRODUCTION

Every judge shapes the law, but few judges have the influence to transform the law over time and across jurisdictions. Members of the legal community often marvel at the degree to which individual judges vary among their peers in terms of prestige and influence. Most judges are respected jurists, meting out justice and striving to apply the law faithfully and equitably. They often perform this service in relative obscurity.¹ But some jurists are set apart from the pack, becoming established figures in the legal world; their judicial activities take them from obscurity to prominence, making them household names for lawyers, academics, and judges across the nation.

These rare judges and their ideas become synonymous with excellence in the legal academy. Names like Marshall, Cardozo, Hand, Holmes, and Friendly transcend the relative obscurity that surrounds most judges. These judges stand out for the degree to which their ideas have surpassed precedential value, changing the American legal system and the popular conception of what it means to be a great judge. But what accounts for this influence?

The easy answer is that many of these judges served on the United States Supreme Court. In addition to writing opinions that are binding on all lower courts, Supreme Court Justices, especially Chief Justices, are becoming increasingly visible and familiar figures in the legal community. Beyond this, the reasons for their influence become more complicated. Judges seem to be strongly motivated by the desire to be seen

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¹ RICHARD A. POSNER, HOW JUDGES THINK 60 (2008).
by others (and to be able to see themselves) as good judges, and there is evidence that prestige can translate into influence. Judge Richard Posner of the Seventh Circuit can arguably be called the most influential judge currently on the bench, but what is it that sets Judge Posner apart?

Before taking the bench, Judge Posner was an outspoken champion of the law and economics movement. Since taking the bench, Posner has become a staple in legal casebooks. In addition to his ubiquity in textbooks and law review articles, his name continues to show up in public discourse and peer judge interviews. He has also published seminal treatises on the theoretical underpinnings of many areas of law, using economic analysis to justify existing law and to suggest new directions in which the law should proceed.

However, praise for Judge Posner is not unanimous. When he was first nominated to the Seventh Circuit, the ABA federal judiciary committee gave Judge Posner a tepid “qualified/not qualified” rating. Additionally, a recent study identified Judge Posner as only an average judge currently on the bench, but what is it that sets Judge Posner apart?

2. Id. at 60–62. See also Lawrence Baum, Judges and Their Audiences: A Perspective on Judicial Behavior 3 (2006) (“Judges, like other people, get satisfaction from perceiving that other people view them positively.”).


4. 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, 50 (2004) (noting that Judge Posner was cited 1,406 times between 1998 and 2000, putting him at the top of the list and “over four standard deviations above the sample mean”). Additionally, in Klein and Morrisroe’s study using invocation data to evaluate prestige among the judiciary, Judge Posner ranked third on the list and “over four standard deviations above the sample mean”). Additionally, in Klein and Morrisroe’s study using invocation data to evaluate prestige among the judiciary, Judge Posner ranked third on the list and “over four standard deviations above the sample mean”).


6. See William M. Landes & Richard A. Posner, Citations, Age, Fame, and the Web, 29 J. LEGAL STUD. 319 (2000). In this piece, Landes and Posner utilize Fred Shapiro’s data on citations to legal scholars and compile additional data on citations to legal scholars as “public intellectuals.” Id. In each list, Judge Posner places in the top 15.

7. See Klein, supra note 4, at 93. Klein states that judges “develop opinions about other individual judges. . . . Most of those interviewed seemed quite at home with the notion that some of their colleagues were better (or thought to be better) than others.” Id. at 93. In the following pages, Klein provides excerpts from judicial interviews, more than one of which mention Judge Posner by name as being influential. Id.

Empirical research by Robert Anderson ranked Judge Posner the 269th best circuit judge (out of 383). We concede that prestige among, and influence over one's peers do not always indicate a greater level of judicial quality, but, unlike these critiques, our concern is not with judicial performance but with prestige and influence in the federal judiciary. More specifically, this article investigates Judge Posner's influence within the judiciary, and how that influence has changed over time. Prior scholarship has looked at Judge Posner's influence within a snapshot of time, but we are not aware of any research that has empirically examined the evolution of his influence since his appointment to the bench.

To gauge the depth and pervasiveness of his influence over time, we collected data on citations to court opinions authored by Judge Posner. We believed that quantifying and tracking Judge Posner's influence on the judiciary would allow us to move beyond the subjective methods by which legal figures are often evaluated. Judge Posner has had a substantial impact on the modern judicial landscape, but it is unclear exactly how influential he has been and how that influence has changed over time. Exploring these questions sheds new light onto the life cycles of "superstar" judges and, at the least, helps us understand Judge Posner's meteoric rise in the judiciary.

The existing literature on the influence of judges is characterized by theories about the quality of each judge and the quality of the opinions they author. Perhaps the most compelling theory regarding the extraordinary popularity of judges like Posner is the "superstar theory" espoused by economist Sherwin Rosen. The theory, as applied to the legal academic market by Gulati and Sanchez, posits that conditions unique to the legal academic market cause citation rates of superstar judges to increase exponentially over time. The indication here is that, over time, some portion of the prominence that influential legal figures enjoy is partially created and perpetuated by that prominence. This effect is possible because there is no monetary cost to use a judge's name and ideas. This causes a select few judges and scholars to become much

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9. Robert Anderson IV, Distinguishing Judges: An Empirical Ranking of Judicial Quality in the U.S. Court of Appeals, 76 Mo. L. Rev. 315 (2010). In his study, Anderson differentiates between "positive" and "negative" citations, using the relative numbers of each value to help determine the rank of each judge. See id. As we mention below, we find these distinctions misleading insofar as using the labels "positive" and "negative" invokes notions of common parlance and not the (very different) technical distinction followed by the Shepard's service.

10. Id. at 338 tbl.II.


13. See Gulati & Sanchez, supra note 5, at 1143–47.

14. See id. at 1144–45.
more widely cited (thus more widely recognized) than their colleagues.\textsuperscript{15} In addition to the superstar effect increasing the influence of a judge, it can also give a judge a disproportionate impact on the legal canon.\textsuperscript{16} If this effect operates in the case of Judge Posner, we would expect it to begin some years after his appointment to the federal bench and amplify his citation and invocation rates over time.

Regarding the judicial opinions, Landes and Posner have suggested that the overwhelming majority of opinions remain viable in the academic market for a very short period of time before fading into obscurity.\textsuperscript{17} They assert that \textquotedblleft[c]hanges in social and economic conditions, in legislation, in judicial personnel, and in other parameters of legal action reduce the value of precedents as a source of legal doctrine.	extquotedblright\textsuperscript{18} As a result, \textquotedblleft[a]lthough a precedent does not \textquoteleft wear out\textquoteright in a physical sense, it depreciates in an economic sense because the value of its information content declines over time with changing circumstances.\textquotedblright\textsuperscript{19}

The existing scholarly literature led us to anticipate similar trends in the citations to Judge Posner's published opinions: beginning from when he was appointed in 1981, we expected to observe an increase in the number of overall citations per year to Judge Posner's published opinions. We also expected that many individual cases would receive fewer citations over time after the first few years of publication, but that some cases would be cited more often over time as Judge Posner's influence grew, deriving the greatest benefit from the superstar effect. In other words, in terms of a graph, one would expect to typically see modest citation rates in early cases.

Finally, we had expected the superstar effect to lead to higher initial citation rates of cases in the 1990s compared to those of the 1980s. That is, as Posner became more famous, other judges would begin to cite him because of his fame—but this effect would, of course, show up only after he became famous. Figure 1, below, demonstrates these hypothesized trends, in aggregate citation rates over time.

\begin{itemize}
\item \textsuperscript{15} See Rosen, supra note 12.
\item \textsuperscript{16} See Gulati & Sanchez, supra note 5, at 1143.
\item \textsuperscript{18} Id. at 263.
\item \textsuperscript{19} Id.
\end{itemize}
Our initial sample yielded results that were inconsistent with this projected pattern for the building of a gradual superstar effect. To better understand on the cause, we broadened our search and collected more data. Contrary to our initial prediction, we continued to observe fairly constant citation rates over time for each Posner opinion. Indeed, there was even something of an upside-down effect, in that opinions authored by Judge Posner in the 1980s tended to receive more citations in the 1990s and 2000s than his more recent opinions. Additionally, initial citation rates for each opinion did not increase as Judge Posner served more years on the federal bench.

Our findings indicate that there is some force at play that is not explained by the existing literature. We do not interpret this as an indication that those theories are less valid, nor do we claim that this effect operates on other judges, even those who might be considered “superstars.” What we can say, however, is that at least this particular superstar’s career does not follow the projected pattern. In hindsight, perhaps this is unsurprising. After all, nothing about Judge Posner follows normal patterns.

Also, we stress that our claims do not reach so far as to suggest that empirical data can or should be used to measure judicial performance in any ordinal sense. That is, we do not contend that a judge whose opinions are repeatedly cited by courts outside his jurisdiction is somehow “better” than his less-cited peers.\textsuperscript{20} That said, we do not accept

\textsuperscript{20} As Judge Posner himself has noted, “[m]any important judicial activities go on below the radar, in the sense that it would be difficult to develop performance measures for them.” Posner, supra note 1, at 149. We recognize that many aspects of judging are not given to quantification and that even the most sophisticated studies are vulnerable to certain criticisms regarding the propriety and efficacy of empirically evaluating performance. See id. at 146–53 for a detailed discussion. For the purposes of our study, then, we have sought to narrow the range of extrinsic complications by limiting our claims regarding what the data shows.
the view articulated by some that judging is such a complex phenomenon that attempts to measure it should be avoided.\textsuperscript{21}

Our study also lacks a qualitative element, where a careful textual analysis of the language in Judge Posner’s opinions and their evolution over time might be done (although we did read hundreds of his opinions in the context of working through this project). Qualitative analysis is beyond our modest project. Instead, we suggest that there are some federal judges who, based on citations to their work and invocations of their name, have attained a higher level of influence on the American judicial community and will leave a more robust doctrinal legacy than the average judge.\textsuperscript{22}

We begin by detailing the parameters of our data collection efforts and explaining the choices that we made regarding what data to collect and how to structure the collection process. We then discuss the data and its application to existing theories and our own hypotheses. Finally, we explore possible explanations for the trends presented by the data.

II. METHODOLOGY

Our first step was to collect data on Judge Posner’s prominence and influence over time. We collected data on citation rates by opinion for 150 cases. These opinions were selected from 1982 through 1985, from 1994 through 1997, and from 2004 through 2007. There are fifty opinions from the 1980s, fifty from the 1990s, and fifty from the 2000s, broken down by year.\textsuperscript{23} All published opinions written by Judge Posner, of varying lengths and subject areas, were considered for the sample.\textsuperscript{24} We Shepardized each case, counting the number of citations to that case made by all state and federal courts sitting outside the Seventh Circuit.\textsuperscript{25}

\textsuperscript{21} See, e.g., Marin K. Levy, et al., The Costs of Judging Judges by the Numbers, 28 Yale L. & Pol’y Rev. 313, 317 (2010) (“Given of the complexity of judging, it is not surprising that a single data point (e.g., a published opinion, a citation, or a dissent) may be both consistent and inconsistent with admirable characteristics.”).

\textsuperscript{22} In his recent piece on reputation among federal appellate judges, Michael Solimine pointed out that citation analysis is a “tool that best measures influence.” Michael E. Solimine, Judicial Stratification and the Reputations of the United States Courts of Appeals, 32 Fla. St. U. L. Rev. 1331, 1339 (2005). Professor Solimine added that there are a number of “possible drawbacks” inherent in citation analysis. Id. As we discuss here and in the methodology section, we feel that we have minimized (and, in some cases, rendered moot) these concerns to the point that they do not unduly sully our analyses.


\textsuperscript{24} This does not include any of the opinions authored by Judge Posner while sitting by designation at the district court level. While the data from Judge Posner’s moonlight position at the trial level may be interesting, inclusion in our study would skew the results.

\textsuperscript{25} In doing so, we adopted the methodology of a number of empirical studies evaluating citation rates. See, e.g., Montgomery N. Kosma, Measuring the Influence of Supreme Court Justices, 27 J. Legal Stud. 333, 350 n.37 (1998); Frank B. Cross et al., Citations in the U.S. Supreme Court: An Empirical Study of Their Use and Significance, 2010 U. Ill. L. Rev. 489, 520–21 (2010). We excluded citations by courts within the Seventh Circuit to avoid
In considering whether and how to count citations, we turned to existing literature for guidance. Although many studies have proceeded without differentiating positive, negative, and neutral citations, recent literature suggests that important differences between these categories require a more nuanced system. After careful consideration, we decided that a distinction between positive and negative citations would not be helpful here. Conceptually, we felt that a neutral or negative citation from a court in a different jurisdiction suggests that either the judge or one of the litigants considered the case influential enough to require explanation or inclusion. Procedurally, after finding that some of the citations that are classified as “negative” in the Shepard’s report do not qualify as being truly negative for our purposes, we decided that trusting these classifications would be unhelpful at best, and misleading at worst. Moreover, a thorough analysis of each classification would be unworkable. For these reasons, we ultimately decided to proceed by counting all citations as indicative of an opinion’s influence within the legal community.

To study the related concept of prestige, we next collected invocation data for each of the 150 cases for which we collected citation data, recording all invocations made to each case on a year-by-year basis. We define an invocation as a mention of Judge Posner by name in

26. See generally Anderson IV, supra note 9.

27. For example, one “negative” citation to Sutter v. Groen, 687 F.2d 197 (7th Cir. 1982) can be found in Siebel v. Scott, 725 F.2d 995, 999 (5th Cir. 1984). The Siebel case cites Sutter as a case that offers a different analysis of the legal rule. See id. There is no implication that the Sutter case is poorly reasoned, wrongly decided, or otherwise deserving of “negative” treatment. We assert that, in common parlance, this would ultimately be considered a “positive” citation because a judge chose this case, from all the possible choices, to describe how the Seventh Circuit utilizes a different analysis.

28. We recognize that there has been scholarship indicating a high degree of accuracy between the Shepard’s coding guidelines and the codings that Supreme Court cases actually receive. See Ryan C. Black & James F. Spriggs II, An Empirical Analysis of the Length of U.S. Supreme Court Opinions, 45 Hous. L. Rev. 621 (2008). However, we feel that this treatment does not substantially change the analysis. Our point is not that the actual codings deviate from the guidelines, but rather that the guidelines themselves may not accurately capture the nuances of the treatment of the cases in our dataset and, perhaps more generally, at the appellate level.

29. See Klein & Morrisroe, supra note 3, at 374–81 (describing a method for measuring judicial prestige). After considering several possible ways to measure prestige among judges, Klein and Morrisroe decided to use citations to judges by name as their metric. See id. at 387–90. They ultimately concluded that, in addition to anecdotal evidence and their initial expectations, use of the decision to cite another judge by name as a measure for prestige is supported by the “pattern of correlations between the measure and other variables.” Id. at 390.
junction with a citation.\textsuperscript{30} In collecting data on invocations, we decided not to include mentions of Judge Posner intended only to denote his status or to indicate that he concurred or dissented in a given case; we only counted the instances in which Judge Posner was given credit for authoring the cited opinion. For the reasons listed above and for the sake of consistency, we made no distinction between positive, negative, and neutral invocations. Using these procedural guidelines, we collected the citation and invocation data shown below.

\section*{III. CITATION DATA}

As noted above, the quantitative data drives the story. Our citation data tracks 150 cases from various years across Judge Posner's judicial career. Figure 2, reproduced below, shows the citation rates per case through time. The graph demonstrates large numbers of citations to the earliest opinions in the sample—the opinions that were published in the years from 1982 to 1985, Judge Posner's first full years on the bench.

The graph also shows that many of these cases received substantial citations within a year from the date of publication, an unexpected outcome given Judge Posner's extremely recent appointment to the bench and the short period of time between publication and citation by other judges. Additionally, these opinions continued to receive fairly strong citations, out-performing most of the newer opinions through the end of the observation period. Though the opinions demonstrate early spikes in citation rates followed by predicted periods of decline, these periods of decline are not as drastic as the existing literature led us to expect and, in some cases, gave way to resurgences in influence many years after publication and initial decline. We were particularly struck with the way in which most recent opinions were, with few exceptions, cited less frequently (both initially and over time) than the opinions from Posner's first few years on the bench.

The cases are documented along the X axis, left to right, from least recent to most recent, with years documented along the Z axis front to back, from 1982 to 2009. The number of citations for each case is shown along the Y axis.

\footnote{30. There are two main forms of invocation: textual ("As stated by Judge Posner in \textit{Smith v. Smith . . ."}) and parenthetical ("This was the reasoning espoused in \textit{Smith v. Smith (Posner) . . ."}).}
Figure 2: Judge Posner Citations by Opinion, per year. Presented chronologically, with cases from the 1980's beginning on the left.
The variations in the declines in citation rates are perhaps best depicted in the aggregate. Thus, below in Figure 3, we have combined the cases by decade and graphed the arithmetic means of the citations over time.\textsuperscript{31} The aggregation of the cases normalizes the distribution of the citations, removing much of the variation and greatly reducing the overall scale while preserving the general trends.

Figure 3: Aggregate Citation Numbers by Period

Figure 3 more clearly demonstrates the aggregate trends that we noticed in our analysis of Figure 2. We were first struck by differences in shape and size among decades—to the extent that we had expected this much of a difference from the 1980s to the 1990s to the 2000s, we would have assumed that the trends would be flipped, with the most recent cases enjoying the greatest influence in the legal community.

Regarding the decrease in citations that cases receive over time, the time it takes for Judge Posner’s cases to begin to drop off is much longer than the literature suggests is normal. The line representing the 1980s cases, for example, does not drop below one citation per year until 1997 or 1998. It is also important to note that there are mild but substantial “resurgences” of citations to cases after their initial periods of decline. While indicating that these cases are not experiencing the long-term citation decay that we had originally expected, this trend also suggests that the superstar effect is not operating to artificially inflate these numbers on the back end.

Finally, we were surprised by the high number of citations that these cases received even in the periods of predicted “decline” that are attributable to their aging and losing relevance to the current state of the law.\textsuperscript{32} We were particularly struck by the increasingly steep slopes

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Citation_Averages_by_Year.png}
\caption{Citation Averages by Year}
\end{figure}

\textsuperscript{31} Each line represents the cases from the observed four-year period during each decade. The Y-axis shows the average citations per case per year for each set of cases.

\textsuperscript{32} Having seen the raw data for a large number of federal judges, we were unprepared to see that even cases in decline averaged almost one citation per year.
leading up to and away from the highest points in the arithmetic means of the citations per decade. In addition to presenting the highest overall average citations, the 1980s cases exhibit a longer period of building interest followed by a more gradual period of decline when compared to the other decades.33

IV. INVOCATION DATA

The invocation data helps to complete the picture by providing us with a means by which to measure Judge Posner’s prestige. To mirror the citation data, we gathered invocation data on fifty cases from each of three separate time frames; 1982–1985, 1994–1997, and 2004–2007, noting the number of times that Judge Posner is mentioned by name. Invocations from the Seventh Circuit are included in this data set because, unlike citations to opinions generally, all invocations are voluntary, regardless of precedential value. A district court judge in Illinois may be compelled to cite a Posner opinion but would have no obligation to invoke Judge Posner’s name. The data from each period are best presented in the aggregate to help illustrate the relative level of invocation.

Based on the conventional wisdom, Judge Posner’s invocation rates should increase dramatically over time for several reasons: his reputation grew; he became more accustomed to the art of opinion-crafting; and he published more opinions covering a broader range of legal issues. Even though Judge Posner was a highly accomplished academic prior to his appointment, he was a judicial neophyte, and we expected to see this reflected in his invocation rate.

The data from the three periods are very similar as the invocations numbers are comparable and the time horizons track closely. The general theme appears to be a steep rise within a couple years of publication followed by a slow decay over the next three to four years. Interestingly, each time frame experienced a steep rise in invocation rates beginning in the mid-2000s.

Figure 4, below, displays the invocations per year from 1983 through 2009. Each line represents the aggregate number of invocations per year for the fifty cases from each time frame. The opinions from the 1980s were invoked steadily throughout the 1980s, peaked again in the early 1990s, and dropped off in the mid-1990s. These opinions continue to be invoked more than twenty years after their publication, with a distinct third spike in 2004.

33. We note that, as the cases get more recent, the initial increase in citation is more rapid. We only conjecture that this effect might be a combination of “superstar effect” and the increasingly rapid availability of cases through electronic media.
The 1990s time frame is consistent with the 1980s data. This period also has longevity, as indicated by invocations continuing well into the 2000s, with a similar secondary spike from 2005–2007.

For the 2000s period, the initial invocation numbers were much higher than the other periods. However, the decay rate was similar to the other time frames. By 2008, the number of invocations for these opinions had declined significantly.

Figure 5 represents the total number of invocations in the first six years after publication.34 The aggregate figures from the 1980s and 1990s closely track one another, but the total invocation numbers from the 2000s were considerably higher. The fifty cases from the 2000s were invoked seventy-two times, representing a significant jump over the previous time frames.

34 Six years was chosen as the measuring point because that is the extent of the data from cases published in the 2000s. The use of any other time frame would distort the compiled data.
For purposes of context and comparison, we also collected invocation data from fifty opinions written by Seventh Circuit judge Diane Wood. Judge Wood was selected because, like Judge Posner, she is an oft-cited, well-respected jurist from the Seventh Circuit.\textsuperscript{35} We felt that her selection was appropriate given her recent presence on President Obama’s “short list” of nominees to the United States Supreme Court.\textsuperscript{36} We used the same random method for selecting opinions that we used for Posner opinions. Of the fifty randomly selected cases we found no instances in which Judge Wood was referred to, by name, in a citing reference made by another judge.

Regarding Judge Posner’s invocation rates, there is value in comparing the time frames side-by-side. This allows us to better determine any variance in the time horizons of the invocations and any similarities in the lines. This comparison also depicts the degree to which Judge Posner’s invocation rates have varied over time.

Figure 6 represents the number of invocations per year in the first fifteen years after publication. For example, the data from the 1980s begins in 1983 and ends in 1998, while the data from the 1990s begins in 1994 and ends in 2009. This allows us to chart and compare the life cycle of opinions side-by-side.

![Figure 6: Side-by-Side Comparison of Invocations](image)

The line from each time frame begins much the same. There is a steep rise for at least three years followed by a slow decay. This is what

\textsuperscript{35} Judge Wood’s citation rates are very high among circuit judges. See Choi & Gulati, supra note 4, at 51. Between 1998–2000 Judge Wood was cited 678 times, making her the ninth-most-cited circuit judge per published opinion. Id.

we projected and what we noticed in the previous graphs. The peak from the 2000s remains strikingly higher than those of the other two periods. The peak is also sustained for a year longer than the earlier periods and occurs in year four, where the previous periods already have begun to decline.

V. ANALYSIS

The invocation data more closely approximate our original hypotheses than does the citation data. As such, it exhibited traits from several existing theories. The depreciation effect was evident in the steep drop off after four to five years. Each period was affected by this depreciation, but these cases also exhibited longevity. The data from the 1980s and 1990s each have two peaks. This resurgence was unexpected but could be a by-product of the superstar effect. The superstar effect may explain the longevity of the opinions as well as the large uptick in invocations for the later period. This would also help explain the invocation increase for each period occurring in the mid-2000s.

On the whole, however, the data tell an unexpected story. We anticipated exceptionally high citation and invocation rates. The ease with which Judge Posner can be compared to Judge Wood, one of the most respected judges on the appeals courts, illustrates the magnitude of his prestige among the judicial community. But, given the conventional wisdom, we predicted a sharp increase in Judge Posner's citation and invocation rates over time, with the caveat that citations to older cases would steadily drop off as new cases emerged and the older cases lost relevance. Instead, the citation data show high citation rates from the outset, followed by a slight decrease in the later periods. Figure 7 presents an overlay comparing our hypothesized results with the results that we actually observed.

Figure 7: Comparing Our Citation Prediction with Our Results.37

37. The dashed, grayscale figures represent our predictions, while the solid lines represent our collected data.
When our predictions and results are viewed together, the discrepancies become obvious. Though we were quite wrong all the way around, our prediction for the earliest period was the most inaccurate. From the outset, Judge Posner’s citation and invocation rates were high. Additionally, the citation rates in the most recent period were not as high as we predicted. We assumed that the citation rates for recent opinions would dwarf those of the earlier opinions, but (especially when viewed case-by-case in Figure 2) the opposite is true.

The eventual decline in citations to Judge Posner’s individual opinions over time is best explained by the depreciation effect described by Landes and Posner. However, the graphs demonstrate that citations to Judge Posner’s opinions only depreciate by approximately half, significantly less than the conventional view would suggest. Even as new precedents and more recent iterations of similar legal ideas are produced and published, the cases from the early 1980s continued to receive substantial citations for the next 20 years. This speaks to the prominence of Judge Posner and the influence that he has had on the judiciary in the past 30 years, if not to the quality and “citability” of these early opinions. There is no indication that citations to these opinions will taper off in the near future, suggesting either that the average Posner opinion has a much longer half-life than normal, or that his opinions are not susceptible to the radioactive decay analogy that describes many published opinions.

As the literature and graphs above indicate, the overall outcome of our research yields a very different trend from the one we had expected. While we see a form of the depreciation effect described by Landes and Posner, the pattern is unexpected. As a result, we decided that the best way to evaluate our research was to present our data to some members of the judicial and academic communities. The goal was to use these informal interviews to find context that might better explain our data. Some of their reactions added substance to theories that we had considered; others added insight that steered us in previously unconsidered directions. The following material incorporates the fruits of these collaborative efforts as we explore possible explanations for the unexpected trends in the data.

One possible explanation of these numbers is the volume of case opinions that Judge Posner authors and publishes each year. For example, as of October 1, 2009, Judge Posner has authored 2,346 opinions—roughly 80 for each year spent on the bench. If the legal analyses in his opinions remain relatively unchanged and he uses similar justifications in similar circumstances, the fact that there are so many of them in the market could give rise to a dilution effect. This dilution theory has explanatory power only insofar as Judge Posner uses the same or similar

39. Id.
reasoning for cases in the same subject area. Because of the overlap, specific cases seem to have been chosen for reasons beyond analytical quality.40 The most invoked cases of the 2000s featured quotable one-liners. For example, one phrase enjoyed by citing judges was, "only a lunatic or a fanatic sues for $30."41 The sheer volume of Judge Posner opinions may have saturated the market, outpacing the growth of demand and resulting in a lower average citation rate over time. We suspect that this “saturation” effect may also help explain the loss of staying power exhibited in the more recent opinions.

There are several specific examples of the dilution theory at work in our data set. This can happen in a number of different forms. Judge Posner has written many opinions on similar or even identical topics. In these circumstances, a citing judge can choose among many similar cases, which impacts the citation rate for a given Posner opinion. For example, New Medium Technologies LLC v. Barco N.V. cites and invokes two similar Posner opinions.42 This is notable because many other citing cases mention either one opinion or the other, diluting the respective citation rate of each opinion. Related to this are situations with selective invocation. This occurs when several Posner opinions are cited, but only some are technically invoked.43 The consequence of this “selective parallel invocation effect” is that, where either opinion existing alone would be considered influential enough to warrant invocation, only one opinion is actually chosen.44 The practical effect is that cases may be invoked at substantially lower rates than they otherwise would have been and, while the overall number of invocations may remain constant, the invocations per case may drop.

Non-professional demographic qualities may also affect quality or perceived quality of opinions over time. Anecdotally, many would expect the quantity and quality of publications to decrease as the effects of aging begin to accumulate. There is an abundance of medical, psychological, and behavioral scholarship on the topic and many legal scholars have explored the effects of aging.

Through his writing, Judge Posner himself has addressed the effects of aging on judges. He compiled a data set that suggested citations are only slightly diminished with age.45 Posner explained this phenomenon by arguing that the quality of a judicial opinion is highly dependent

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40. This observation is anecdotal. The invoking cases of the 2000s featured more direct quotes from Judge Posner’s opinions. Of the fifty cases we analyzed from the 2000s, the five cases with the highest invocation rates featured a quote that appeared in most invoking opinions.
42. 242 F.R.D. 460, 463 (N.D. Ill. 2007).
43. See, e.g., In reSulfuric Acid Antitrust Litig., 235 F.R.D. 646, 657 (N.D. Ill. 2006) (citing two Posner cases consecutively, but only invoking his name once).
44. This phenomenon is not limited to invocation rates; it has also been observed in citation rates.
on writing ability, which is unlikely to deteriorate over time.\textsuperscript{46} Additionally, the data hint that the quality of opinions holds up “remarkably well,” especially when judging is compared with other occupations.\textsuperscript{47} However, Judge Posner found that age-related decline for judges can and does occur at “unusually advanced age.”\textsuperscript{48}

Additionally, the larger political climate of the country may go a long way toward explaining the immediate impact of Judge Posner’s opinions. Judge Posner was appointed to the bench by Ronald Reagan and trumpeted many of the central themes of Reagan’s administration.\textsuperscript{49} The law and economics movement and its ideas were central to the changes in the markets and the courts in the 1980s.\textsuperscript{50} As an academic, Posner was at the forefront of law and economics at the University of Chicago;\textsuperscript{51} as a federal judge, he became a judicial standard-bearer of the burgeoning law and economics movement.\textsuperscript{52}

As economic analysis of the law gained broad support, Judge Posner’s analyses became impromptu treatises on the current and optimal states of the law. To paraphrase one legal academic, many scholars, lawyers, and judges felt that Posner’s works represented the best iterations of the arguments that they sought to make—why re-invent the wheel (and risk losing the power of the argument in the process) when they could freely cite his concise, powerful writing?\textsuperscript{53}

At first glance, this particular response echoes in “superstar” theory, but traditional superstar theory implies that the level of success is amplified beyond its “natural” level by qualities inherent in the academic market. We think that the spread of Posner’s influence is due partially to the degree to which he fed and drew from the growth of the law and economics movement, an effect completely independent of citation market forces. While this logic has strong anecdotal appeal, it would be extremely difficult to empirically measure the movement’s impact on Judge Posner’s citation rates.

\textsuperscript{46} Id. at 198 (“What lifts a judicial opinion out of the commonplace, apart from the accidents of historical significance over which the judge has no control, is the vividness, compactness, and, in short, memorableness of his exposition.”).

\textsuperscript{47} Id. at 187. Quality in this instance is determined by using average citations per opinion as a proxy.

\textsuperscript{48} Id. at 188, 190–91 tbl.8.3. Posner came to this conclusion by analyzing the output of Judge Learned Hand. Id. When Hand first assumed senior status at age seventy-three, his citations were at the highest point in his career. Id at 188. By age eighty-five, Hand’s output had remained steady, but his citation rate had dropped substantially. Id.

\textsuperscript{49} See James Reston, WASHINGTON; Reagan’s Thumbprint, N.Y. TIMES, June 28, 1987, at 4-25.


\textsuperscript{51} Id. at 94.

\textsuperscript{52} Id.

Finally, we think it possible that Judge Posner’s earliest published opinions were so strongly colored by his academic background that they more heavily utilized academic ideas. This does not imply that he ignored precedent, but that he supplemented precedent with ideas from the academic world. Our study suggested this possibility, but conducting a true experiment to evaluate the substance and composition of Judge Posner’s opinions over time proved outside the scope of our paper.

Assuming nevertheless that there was a change in Judge Posner’s style of writing (that is, that the young Judge Posner wrote differently than the middle-aged Judge Posner), this theory could go a long way toward explaining the high number of citations in the 1980s because Posner, as an academic, had attained a high level of respect even before his appointment to the federal bench. It is possible that he delivered exactly what the judicial market was craving—a novel, persuasive economic approach to evaluating current law and shaping future policies. As a result, the earlier, academic-leaning opinions might have greater utility to judges outside of the Seventh Circuit than later opinions. The later opinions may prove to be anchored mainly in Seventh Circuit or Illinois state law precedent, lacking the “universal” appeal of the academic work.

VI. CONCLUSION

The existing theories of judicial influence, including those articulated and researched by Judge Posner and his frequent co-author, William Landes, are accurate, profound, and serve as great descriptive models for evaluating the average judge. The data on Judge Posner illustrates the limitations of even the best models. The model for “superstars” was created to describe the forces that operate around exceptional performers, and it still doesn’t account for Judge Posner. Even Judge Posner’s own assumptions on depreciation don’t capture the staying power of his opinions. In these uncommon circumstances, the conventional wisdom breaks down. In certain cases it may be impossible to predict or gauge how influential a judge is without evaluating the context in which his opinions are written and read.

Judge Posner may have been preceded by his reputation. Such high citation rates immediately after taking the bench indicate that the market had a certain level of expectation regarding Judge Posner’s contribution to the judicial community. The fact that his cases were cited with increasing frequency over the first seven or eight years of his time as a judge, however, suggests that there is more to the story.

54. This may also partially account for Judge Posner’s high citation/invocation rates. In his study on judicial activism, Corey R. Yung found that Posner had a judicial activism score above the mean for circuit judges. Corey Rayburn Yung, Flexing Judicial Muscle: An Empirical Study of Judicial Activism in the Federal Courts, 105 NW. U. L. REV. 1, 42 (2011).
APPENDIX: JUDGE POSNER OPINION LIST

A. 1982 CASES

1. Donovan v. Fall River Foundry Co., 696 F.2d 524 (7th Cir. 1982).
2. McCollum v. Miller, 695 F.2d 1044 (7th Cir. 1982).
3. A.O. Smith Corp. v. United States, 691 F.2d 1220 (7th Cir. 1982).
4. Sutter v. Groen, 687 F.2d 197 (7th Cir. 1982).
5. FDIC v. Braemoor Assocs., 686 F.2d 550 (7th Cir. 1982).
8. Valley Liquors, Inc. v. Renfield Imps., Ltd., 678 F.2d 742 (7th Cir. 1982).
9. Edgewater Nursing Ctr., Inc. v. Miller, 678 F.2d 716 (7th Cir. 1982).
10. Central Soya Co. v. Epstein Fisheries, Inc., 676 F.2d 939 (7th Cir. 1982).

B. 1983 CASES

1. NLRB v. Vill. IX, Inc., 723 F.2d 1360 (7th Cir. 1983).
2. Illinois v. Interstate Commerce Comm’n., 722 F.2d 1341 (7th Cir. 1983).
5. Merit Ins. Co. v. Leatherby Ins., 714 F.2d 673 (7th Cir. 1983).
7. Brooks v. United States, 708 F.2d 1280 (7th Cir. 1983).
8. Stoleson v. United States, 708 F.2d 1217 (7th Cir. 1983).

C. 1984 CASES

1. Brunswick Corp. v. Riegel Textile Corp., 752 F.2d 261 (7th Cir. 1984).
2. United States v. Torres, 751 F.2d 875 (7th Cir. 1984).
3. Harris v. Greer, 750 F.2d 617 (7th Cir. 1984).
7. Hudson v. Chicago Teachers Union Local No. 1, 743 F.2d 1187 (7th Cir. 1984).

D. 1985 CASES

5. Flynn v. Merrick, 776 F.2d 184 (7th Cir. 1985).
7. Walberg v. Israel, 776 F.2d 134 (7th Cir. 1985).
12. United States v. Davis, 772 F.2d 1339 (7th Cir. 1985).
15. Hall v. Simcox, 766 F.2d 1171 (7th Cir. 1985).

E. 1994 CASES

1. Sahara Coal Co. v. Fitts, 39 F.3d 781 (7th Cir. 1994).
2. Colfax Envelope Corp. v. Local No. 458-3M, Chi. Graphic Commc'ns Int'l Union, 20 F.3d 750 (7th Cir. 1994).
5. Thomas v. Farley, 31 F.3d 557 (7th Cir. 1994).
6. United States v. Duarte, 28 F.3d 47 (7th Cir. 1994).
7. Ormsby Motors v. General Motors Corp., 32 F.3d 240 (7th Cir. 1994).
10. Metropolitan Life Ins. Co. v. Wheaton, 42 F.3d 1080 (7th Cir. 1994).

F. 1995 CASES

2. EEOC v. Illinois, 69 F.3d 167 (7th Cir. 1995).
3. Hart-Carter Co. v. HCC, Inc., 68 F.3d 165 (7th Cir. 1995).
5. Thomas v. Gish, 64 F.3d 323 (7th Cir. 1995).
10. United States v. Levinson, 56 F.3d 780 (7th Cir. 1995).

G. 1996 CASES

3. Cooper v. Casey, 97 F.3d 914 (7th Cir. 1996).
5. Richmond v. Chater, 94 F.3d 263 (7th Cir. 1996).
7. Wittmer v. Peters, 87 F.3d 916 (7th Cir. 1996).
10. United States v. Williams, 81 F.3d 1434 (7th Cir. 1996).
11. Mack v. O'Leary, 80 F.3d 1175 (7th Cir. 1996).

H. 1997 CASES

2. Baerwald v. City of Milwaukee, 131 F.3d 681 (7th Cir. 1997).
3. Northen v. City of Chi., 126 F.3d 1024 (7th Cir. 1997).
4. Gramatikov v. INS., 128 F.3d 619 (7th Cir. 1997).
6. Duvall v. Miller, 122 F.3d 489 (7th Cir. 1997).
7. Dasgupta v. Univ. of Wis. Bd. of Regents, 121 F.3d 1138 (7th Cir. 1997).
15. Hennon v. Cooper, 109 F.3d 330 (7th Cir. 1997).

I. 2004 CASES

1. Fid. & Deposit Co. v. Rotec Indus., 392 F.3d 944 (7th Cir. 2004).
2. Baird v. Davis, 388 F.3d 1110 (7th Cir. 2004).
5. Muhur v. Ashcroft, 382 F.3d 653 (7th Cir. 2004).
8. United States v. Pawlinski, 374 F.3d 536 (7th Cir. 2004).
10. United States ex rel. Lu v. Ou, 368 F.3d 773 (7th Cir. 2004).
12. Thomson v. Wash., 362 F.3d 969 (7th Cir. 2004).
14. Emp'rs Ins. of Wausau v. El Banco de Seguros del Estado, 357 F.3d 666 (7th Cir. 2004).
15. In re Enviroydne Indus., Inc., 354 F.3d 646 (7th Cir. 2004).

J. 2005 CASES

1. In re Payne, 431 F.3d 1055 (7th Cir. 2005)
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12. In re Allstate Ins. Co., 400 F.3d 505 (7th Cir. 2005).
15. Sts. Constantine & Helen Greek Orthodox Church, Inc. v. City of New Berlin, 396 F.3d 895 (7th Cir. 2005).

K. 2006 CASES

2. Sanchez v. Barnhart, 467 F.3d 1081 (7th Cir. 2006).
3. United States v. Bullion, 466 F.3d 574 (7th Cir. 2006).
5. Allord v. Barnhart, 455 F.3d 818 (7th Cir. 2006).
6. Borroco v. City of Chi., 456 F.3d 698 (7th Cir. 2006).
7. United States v. Goodwin, 449 F.3d 766 (7th Cir. 2006).
8. Tomic v. Catholic Diocese of Peoria, 442 F.3d 1036 (7th Cir. 2006).
9. Dechert v. Cadle Co., 441 F.3d 474 (7th Cir. 2006).
10. Loubser v. Thacker, 440 F.3d 439 (7th Cir. 2006).

L. 2007 CASES

1. Hussain v. Mukasey, 510 F.3d 739 (7th Cir. 2007).
3. EEOC v. V & J Foods, Inc., 507 F.3d 575 (7th Cir. 2007).
4. United States v. Hamilton, 499 F.3d 734 (7th Cir. 2007).
5. Gradel v. Piranha Capital, L.P., 495 F.3d 729 (7th Cir. 2007).
7. Hoosier Care, Inc. v. Chertoff, 482 F.3d 987 (7th Cir. 2007).
8. U.S. Dep't of Educ. v. NCAA, 481 F.3d 936 (7th Cir. 2007).
10. United States v. Boyd, 475 F.3d 875 (7th Cir. 2007).