



Digital Commons@
Loyola Marymount University
LMU Loyola Law School

Loyola of Los Angeles Law Review

Volume 43
Number 3 *Symposium: The Federal Circuit as
an Institution*

Article 27

3-1-2010

Myths of (Un)Certainty at the Federal Circuit

Ted Sichelman

Follow this and additional works at: <https://digitalcommons.lmu.edu/llr>



Part of the [Law Commons](#)

Recommended Citation

Ted Sichelman, *Myths of (Un)Certainty at the Federal Circuit*, 43 Loy. L.A. L. Rev. 1161 (2010).
Available at: <https://digitalcommons.lmu.edu/llr/vol43/iss3/27>

This Symposium is brought to you for free and open access by the Law Reviews at Digital Commons @ Loyola Marymount University and Loyola Law School. It has been accepted for inclusion in Loyola of Los Angeles Law Review by an authorized administrator of Digital Commons@Loyola Marymount University and Loyola Law School. For more information, please contact digitalcommons@lmu.edu.

MYTHS OF (UN)CERTAINTY AT THE FEDERAL CIRCUIT

*Ted Sichelman**

This Article disputes three “myths” regarding certainty and uniformity in patent law. First, it rebuts the claim that the Federal Circuit has mostly eliminated nonuniformity in the application of patent law. Although the Federal Circuit has generally purged the longstanding doctrinal splits among the regional circuit courts, because most patent actions are not appealed, it is the district courts—which exhibit wide variance from one another—that are the effective courts of last resort. As such, nonuniformity—and attendant forum shopping—remain widespread. Second, this Article casts substantial doubt on the assertion that the Federal Circuit’s high claim construction reversal rates are merely the result of litigants selecting the most uncertain cases for appeal. Rather, in comparison to reversal rates for other patent law issues, as well as rates for other types of complex cases in the regional circuits, the best-supported inference is that claim construction at the Federal Circuit is in need of jurisprudential repair. Third, collecting data from several sources, this Article contends that the Federal Circuit’s reversal rates on the whole are not particularly high, and roughly the same as reversal rates in other circuits, especially those for complex civil cases. Thus, claim construction notwithstanding, for most patent law issues, appeals at the Federal Circuit do not appear to be overly unpredictable or panel-dependent.

* Assistant Professor, University of San Diego School of Law. J.D., Harvard Law School; M.S., Florida State University; A.B., Stanford University. I thank T.J. Chiang, Dennis Crouch, Richard Gruner, Jay Kesan, Jeffrey Lefstin, Mark Lemley, Kelly Casey Mullally, Lee Petherbridge, David L. Schwartz, and participants at The Federal Circuit as an Institution Symposium at the Loyola Law School Los Angeles for their valuable suggestions and comments. This version of the Article has been revised on pages 1177–78 to correct errors in the original printing.

TABLE OF CONTENTS

INTRODUCTION	1163
I. THE BIRTH OF THE FEDERAL CIRCUIT AND THE VARIETIES OF UNCERTAINTY	1164
II. MYTH #1: THE FEDERAL CIRCUIT HAS MOSTLY ELIMINATED HORIZONTAL NONUNIFORMITY	1165
III. MYTH #2: THE FEDERAL CIRCUIT'S REVERSAL RATES FOR CLAIM CONSTRUCTION ARE NOT PROBLEMATIC	1171
IV. MYTH #3: THE FEDERAL CIRCUIT HAS DRASTICALLY INCREASED VERTICAL NONUNIFORMITY	1184
V. CONCLUDING REMARKS: THE IMPORTANCE OF FURTHER INVESTIGATION	1193

INTRODUCTION

A general patent counsel at a Fortune 500 company recently remarked, “[T]he Federal Circuit does a coin flip and reverses district court decisions left and right. You might as well just roll the dice.”¹ When I was in legal practice, many patent litigators echoed this sentiment. In this Article, I refine and test these sorts of claims, incorporating and commenting upon the reflections of Professors Richard Gruner,² Kelly Casey Mullally,³ and David Schwartz⁴ on these issues, which appear earlier in this issue. In sum, I find that these “myths,” like that of the Fortune 500 patent counsel, are generally overstated, but that the Federal Circuit has made a rather poor showing in the claim construction area and has yet to fully remedy judicial nonuniformity in patent litigation.

Part I of this Article briefly discusses the genesis of the Federal Circuit to more precisely define the types of uncertainty present in the patent system. Part II debunks the myth that the Federal Circuit has mostly eliminated nonuniformity across the various district courts. Part III questions the assertion that the high rates of reversal of the Federal Circuit on claim construction issues are not problematic. Part IV nonetheless argues that appealing to the Federal Circuit is not simply a “roll of the dice,” and that in many doctrinal areas, the court has a relatively low and stable reversal rate. In so doing, I contend that claim construction is a somewhat unique case, because it is an area in which the Federal Circuit has failed to adequately address competing policy concerns. Part V concludes by outlining research needed to measure fully and accurately the uncertainty present in the patent system, so as to lay the groundwork for appropriate reform.

1. *Patent Troubles: Does the Patent System Need Fixing?*, CORP. LEGAL TIMES, June 2005, at 61 (statements of Richard J. Rodrick, General Patent Counsel, S.C. Johnson & Son Inc.); see also Russell B. Hill & Frank P. Cote, *Ending the Federal Circuit Crapshoot: Emphasizing Plain Meaning in Patent Claim Interpretation*, 42 IDEA 1, 2 (2002) (“Such a disparity in panel approaches [to claim construction] truly gives litigants no more certainty than a roll of the dice.”).

2. Richard S. Gruner, *How High Is Too High?: Reflections on the Sources and Meaning of Claim Construction Reversal Rates at the Federal Circuit*, 43 LOY. L.A. L. REV. 981 (2010).

3. Kelly Casey Mullally, *Legal (Un)Certainty, Legal Process, and Patent Law*, 43 LOY. L.A. L. REV. 1109 (2010). As this Article is in part a reply to Mullally’s article, I adopt the clever and apt mongrel term of her title, “(Un)Certainty.”

4. David L. Schwartz, *Pre-Markman Reversal Rates*, 43 LOY. L.A. L. REV. 1073 (2010).

I. THE BIRTH OF THE FEDERAL CIRCUIT AND THE VARIETIES OF UNCERTAINTY

The Federal Circuit has remarked on its founding and mission: The purpose of this Court's enabling act, the Federal Courts Improvement Act of 1982 . . . is to provide a forum that will increase doctrinal stability in the field of patent law. . . . [To that end the] Hruska Commission singled out patent law as an area in which the application of the law to the facts of a case often produces different outcomes in different courtrooms in substantially similar cases. Furthermore . . . the patent bar indicated that uncertainty created by the lack of national law precedent was a significant problem. . . . The testimony received by the committee also supported the basic objective of providing for uniformity of doctrinal development in the patent area. . . . The creation of the Court of Appeals for the Federal Circuit will produce desirable uniformity in this area of the law.⁵

This quotation from the legislative history of the Federal Courts Improvement Act focuses on what I term "horizontal uniformity"—namely, that if a case is brought in one district court, the outcome would be the same if the case were brought in any other district court.⁶ Yet, there is also a "vertical uniformity" at play in the courts. Specifically, vertical uniformity is present when the outcome of the trial court (or the Patent Office or International Trade Commission) is appealed, and the appellate courts (here, a circuit court and the Supreme Court) affirm the trial court decision on the same grounds.⁷ Vertical uniformity, therefore, concerns predictability as a case is

5. *Panduit Corp. v. All States Plastic Mfg. Co.*, 744 F.2d 1564, 1573–74 (Fed. Cir. 1984) (quoting S. Rep. 97-975, 97th Cong., 1st Sess.) (internal quotation marks omitted). See generally Christopher A. Cotropia, "Arising Under" Jurisdiction and Uniformity in Patent Law, 9 MICH. TELECOMM. & TECH. L. REV. 253, 259–61 (2003) (recounting the history of the creation of the Federal Circuit).

6. For important perspectives on uniformity (and the lack thereof) at the Federal Circuit, see Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 6–8 (1989); Craig Allen Nard & John F. Duffy, *Rethinking Patent Law's Uniformity Principle*, 101 NW. U. L. REV. 1619 (2007); and Matthew D. Henry & John L. Turner, *The Court of Appeals for the Federal Circuit's Impact on Patent Litigation*, 35 J. LEGAL STUD. 85 (2006).

7. *Id.*

appealed and—as Kelly Mullally insightfully recognizes—may often be in tension with the goal of horizontal uniformity.⁸

With these preliminary concepts in mind, I turn to analyze three persistent myths regarding uniformity at the Federal Circuit.

II. MYTH #1: THE FEDERAL CIRCUIT HAS MOSTLY ELIMINATED HORIZONTAL NONUNIFORMITY

There appears to be a widespread belief among commentators that because the creation of the Federal Circuit eliminated the plethora of appellate forums and often-conflicting precedents for patent infringement actions, patent law is now horizontally uniform.⁹ In other words, the result of any given case should now be the same in any jurisdiction. Although the Federal Circuit has clearly reduced horizontal nonuniformity, there are several reasons why it has not been fully eradicated.

First, as Gruner aptly recognizes, most patent cases settle well before any judgment, much less an appeal to the Federal Circuit.¹⁰ However, I disagree with Gruner that the major driver of settlement is agreement among the parties on the likely outcome of the case.¹¹ Rather, my experience—confirmed by the seasoned litigator Joseph Re in his remarks at the symposium associated with this issue¹² is that the high cost of litigation relative to the maximum amount at stake is the major driver of most settlements.¹³ In this regard, at the

8. See Mullally, *supra* note 3, at 1126–30.

9. See, e.g., Nard & Duffy, *supra* note 6, at 1620; Dreyfuss, *supra* note 6, at 74.

10. See Gruner, *supra* note 2, at 1031–32 (citing Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L.R. 237 (2006)).

11. See *infra* note 13.

12. Joseph R. Re, Partner, Knobbe Martens Olson & Bear LLP, Remarks at the *Loyola of Los Angeles Law Review* Symposium: The Federal Circuit as an Institution (Oct. 30, 2009).

13. Replying to an earlier version of this Article, Gruner asserts that I misconstrue his view, because his “contention . . . is that patent enforcement cases settle when the parties have estimates of *probable case outcomes* that differ by no more than the costs of further litigation such that it is no longer worth continuing the litigation.” Gruner, *supra* note 2, at 1038 (emphasis added). Although I agree with Gruner’s contention, my point about litigation costs does not concern “probable” outcomes, but rather best-case scenarios for the patentee. Based on my experience as a litigator, I do not believe that parties, particularly their lawyers, are more likely than not to have similar views on case outcomes when settling. *Cf.* Gruner, *supra* note 2, at 1039 (“[A]lignment of [net] case value estimates, in conjunction with the costs of litigation, seem likely to be determinants of case settlements at every stage of litigation.”). And, contrary to Gruner’s assertion, this result does not depend on “irrational” lawyers. *Id.* at 1042. Rather, in many, if not

outset of any given case, parties are often unaware of the total amount at stake.¹⁴ This uncertainty alone—as opposed to uncertainty in the relative merits of the case—may cause a patentee to file suit, and the parties to continue litigation.¹⁵ Contrary to Gruner’s assertion that “the stakes are even larger” than “[l]itigation costs for patent cases,”¹⁶ the median damages award in patent cases in jury trials is about \$3 million and only \$500,000 in bench trials,¹⁷ while the cost of each party litigating through trial is roughly \$3 to \$5 million.¹⁸ As such, in a typical case, it seems very likely that as litigation unfolds, the patentee will learn that even if it clears the infringement, validity, and enforceability hurdles, its judgment award is not likely to exceed the remaining costs of litigation. Assuming any injunction or ongoing damages value to the patentee is roughly the same amount as the actual damages award,¹⁹ a patentee is likely to make a low-ball

most, cases, settlement is primarily driven by the realization of the parties that litigation costs are likely on the order of the *maximum* amount at stake in a given case, with the probabilities of winning or losing on the merits playing a secondary role. If this is so, then many, if not most, cases that are settled are roughly as uncertain in outcome as those that go to judgment and are appealed. *See infra* Part III.

14. As one senior patent litigator recounts, “Patent litigation is outrageously expensive, driven in part by the complexities of the technical and legal issues, uncertainties of claim scope, and the amount at stake.” Christopher A. Harkins, *Fending Off Paper Patents and Patent Trolls: A Novel “Cold Fusion” Defense Because Changing Times Demand It*, 17 ALB. L.J. SCI. & TECH. 407, 434 (2007); *see also* Schwartz, *supra* note 4, at 1105 (“It is not uncommon for the parties’ trial damages positions to vary by one and sometimes even two orders of magnitude.”).

15. *See* Paul Fenn & Neil Rickman, *Asymmetric Information and the Settlement of Insurance Claims*, 68 J. RISK & INS. 615, 617–18 (2001) (proposing a model of tort litigation whereby uncertainty in the amount at stake delays settlements); Ted Sichelman, *Why Barring Settlement Bars Legitimate Suits: A Reply to Rosenberg and Shavell*, 18 CORNELL J.L. & PUB. POL’Y 57, 92 (2008).

16. *See* Gruner, *supra* note 2, at 1038.

17. Mary A. Woodford, Preliminary Analysis of IPLC Data: Patent Infringement Cases 25 (June 2009) (presentation on file with author). In this regard, the *average* award amounts—\$22 million for jury trials and \$3 million for bench trials—are not a reliable indicator of the amounts at stake in a typical patent case, because these figures are skewed by a small number of very high-stakes actions. *Id.*

18. AM. INTELLECTUAL PROP. LAW ASS’N, REPORT OF THE ECONOMIC SURVEY 29 (2009) (reporting that patent litigation suits with over \$1 million at stake cost roughly between \$3 million and \$6 million).

19. Responding to an earlier version of this Article, Gruner remarks:

Patent holders will often be worried about the future enforcement of their patents, while defendants will often be worried about the potential for business interruption losses that are not reflected in damage recoveries at stake in present cases. . . . Sichelman attempts to roughly estimate these further amounts at issue in patent cases as being approximately equal to the amounts seen in case recoveries, but I see no

settlement offer to the accused infringer; otherwise, the patentee will simply drop the suit, and the case will end.²⁰ If this is so, then there is no reason to believe that parties generally agree on the likely outcome of a judgment in most cases that settle.²¹

Responding to an earlier version of this Article, Gruner contends that my “analysis may understate the dollar amounts that are claimed

reason why this relationship should hold and question whether this is a complete estimate of overall case value.

Gruner, *supra* note 2, at 1040 (footnotes omitted). Gruner raises important points, but for a variety of reasons, it seems very likely that in a typical case the costs and benefits associated with an injunction or an ongoing damages award are likely to be of the same order as the median judgment amount. First, for ongoing damage awards, it is likely that, on average, the remaining years of patent life are not more than double the number of years used to calculate damages. With the fairly reasonable assumption that—again, on average—product sales of the accused infringer remain constant, then amounts at issue are still on the order of litigation costs. Second, although an injunction may have significant threat value because of potential switching costs incurred by the accused infringer, the damage award still reflects no less than the lost profits of the patentee, which are likely to be greater than, or at least similar to, the profits earned by the infringer. *See generally* Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 1993 (2007) (arguing that “the threat of an injunction can enable a patent holder to negotiate royalties far in excess of the patent holder’s true economic contribution”). As such, on average, it seems likely that the accused infringer has no more to gain each year by continuing to sell the infringing good than the annualized lost profits collected by the patentee in any damage award. (And this result holds even if the infringing good is a component of a larger product, because the Federal Circuit has regularly applied the entire market value rule when calculating lost profits. *See id.*) Of course, the leverage afforded the patentee from its ability to foreclose sales of the infringing product arguably provides the patentee strong negotiating power, particularly when the defendant’s switching costs are high. Yet, even taking this leverage into account—because the range of acceptable settlement values is constrained by the remaining profits the accused infringer can potentially earn during the term of the patent—it seems unlikely that settlements following injunctions would be more than five or so times the amount of awarded lost profits. In this event, the total amount at stake is still roughly on the order of total litigation costs through trial. Last, Gruner argues that my analysis ignores the potential cost of invalidation of the patent-in-suit. *See* Gruner, *supra* note 2, at 1040. However, outside of the relatively unusual situation in which the accused infringer expects a reverse settlement payment, these costs would only *reduce* the effective amount at stake, making settlement more likely. In sum, although there may be deviations from the proposition in the text, without evidence showing otherwise, it seems fairly reasonable.

20. *See* Sichelman, *supra* note 15, at 57.

21. There are also strategic reasons that can drive settlement in a manner unrelated to party agreement on the merits of the case. For example, patentees will often pursue a strategy in which they start their litigation “campaign” by suing small, relatively weak defendants in order to generate capital from settlements in order to fund the longer “war” against larger, stronger defendants. Jacob Birnbaum, *The Case for the U.S. Patent and Trademark Office’s Adoption of an Open-Source “Bounty” System for Reviewing Business Method and Software Patents, in Light of the Patent Infringement Battles Featuring the U.S. Financial Exchanges That Have Been Waged in Recent Years*, 2006 UCLA J.L. & TECH. 2, 36 n.120 (2006) (noting the use of such a strategy). These kinds of initial settlements are unlikely to be driven by the parties reaching similar predictions regarding case outcomes.

in patent cases because the amounts [I cite] reflect only those awards in cases that resulted in concluded trials and ignore amounts paid in settlements.²² Yet, as Gruner notes, when the total amount at stake in a given case is relatively large, all other factors being equal, the case is less likely to settle because remaining litigation costs are less likely to drive the parties to settlement.²³ Thus, on balance, cases that settle most likely have *lower* amounts at stake than cases that result in a judgment.²⁴ As such—and even if the award reflects some discount on the total amount requested by the patentee²⁵—the maximum amount at stake in a typical patent case is probably roughly the same as, or at least not much more than, it would cost each party to go to trial.

Thus, any significant setback for the plaintiff—such as a loss at claim construction or summary judgment—in a typical patent case (i.e., one involving stakes on the order of the cost of litigation through trial) will tend to ensure a quick settlement. In this event, the plaintiff's odds of winning will generally dip beneath the level needed to provide a sufficiently large net gain relative to the high costs of continuing to litigate the case.²⁶ As such, plaintiffs have strong incentives to bring cases in plaintiff-friendly jurisdictions, such as the Eastern District of Texas, where they are unlikely to lose at the summary judgment stage and have a relatively good shot of winning at trial.²⁷ Knowing that a plaintiff is likely to make it to trial,

22. Gruner, *supra* note 2, at 1040.

23. *Id.* at 1038.

24. Of course, there are very likely a non-trivial number of cases involving extremely high amounts at stake for which the patentee or defendant is essentially forced to settle because of significant risk aversion. See Sichelman, *supra* note 15, at 87. Yet precisely because risk aversion drives these settlements, there is no reason to believe these cases involve issues of claim construction that the parties happen to agree upon prior to settlement.

25. Although patentees typically request much more than what is awarded at trial, it seems reasonable to assume that both parties know that the most a judge or jury would award *in practice* is much less than the requested amount of damages closer to the median awards.

26. See generally Sichelman, *supra* note 15.

27. Specifically, a Cornerstone research report examining nearly all patent infringement cases filed from January 2000 to April 2008 in nine of the busiest district courts found that a large percentage (56 percent) of all judgments in the Eastern District of Texas resulted from trials. See Woodford, *supra* note 17, at 15. This figure compares with 7–26 percent in seven other districts. *Id.* The 72 percent figure in the District of Delaware almost certainly results from the large number of pharmaceutical cases filed there, nearly all of which are merely for equitable relief to be determined by judges, who in that district apparently consolidate summary judgment and trial proceedings in these cases for judicial efficiency. *Id.*

defendants—particularly, risk-averse ones—will often settle relatively unmeritorious suits in order to avoid litigation costs and delays.²⁸ In this event, interjurisdictional differences will diminish the uniformity provided by the Federal Circuit. Specifically, judges in different jurisdictions often decide key issues—such as claim construction, infringement, and invalidity—in substantially different ways.²⁹ Thus, cost and risk considerations will tend to induce the parties to enter into a diverse set of forum-dependent settlements that are unlikely to mirror the more uniform set of outcomes if the cases had been litigated through appeal.

Indeed, the best available evidence shows forum shopping is still a significant problem. Over the last decade, plaintiffs have increasingly chosen the remote Eastern District of Texas, with 860 percent more cases filed there in 2009 than in 2000, while the background growth in total cases filed nationwide was only 15 percent.³⁰ The District of Delaware, popular with pharmaceutical company plaintiffs, grew in filings by 141 percent from 2000 to 2009.³¹ Moreover, a sophisticated empirical study by the economists Scott Atkinson, Alan Marco, and John Turner found that horizontal nonuniformity (measured by the variance of invalidity rates across district courts in different circuits) substantially decreased—but still remains—following the creation of the Federal Circuit.³² Although

28. See Sichelman, *supra* note 15, at 58. See generally David Rosenberg & Steven Shavell, *A Model in Which Suits Are Brought for Their Nuisance Value*, 5 INT'L REV. L. & ECON. 3 (1985).

29. This contention is based on my personal experience as a patent litigator and various anecdotes of former colleagues. Moreover, studies such as Professor Schwartz's—which show a wide variety of reversal rates on claim construction for different judicial districts—empirically support, though perhaps do not confirm, this belief. See David Schwartz, *Claim Construction Reversal Rates I—Overall Reversal Rates*, PATENTLY-O, Feb. 27, 2008, <http://www.patentlyo.com/patent/2008/02/claim-construct.html>; see also Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. REV. 889 (2001) (describing the wide divergence in patent case outcomes and settlement rates among the district courts).

30. Lex Machina “Courts,” <http://www.lexmachina.com/courts?filter=Patent> (last visited Apr. 10, 2010).

31. *Id.*

32. Scott Atkinson, Alan Marco & John Turner, *The Economics of a Centralized Judiciary: Uniformity, Forum Shopping, and the Federal Circuit*, 52 J.L. & ECON. 411, 421 (2009) (finding the variance of the circuits' validity rates was six times as large prior to the creation of the Federal Circuit). This study also found no evidence of forum shopping on the basis of validity rates after 1978. *Id.* at 438. Although my personal experience as a litigator causes me to question this finding, there is no doubt that forum shopping exists on the basis of other variables,

the Federal Circuit in cases like *In re TS Tech*³³ has provided some hope for reducing forum shopping by promoting the transfer of cases with stronger connections to other jurisdictions,³⁴ ultimately, some defendants will always be stuck in “renegade” jurisdictions. Thus, horizontal nonuniformity cannot merely be solved through antiforum shopping rules.

Second, although the empirical data are relatively limited, there is a fairly widespread belief that Federal Circuit decisions are highly “panel-dependent.” Although later in this Article I cast doubt on the soundness of this assertion for most areas of patent law, it appears that panel-dependence very likely plays a role in the critical area of claim construction.³⁵ If this is so, then district courts can, as one former colleague quipped, “pick and choose” from the Federal Circuit’s repository of conflicting claim construction precedents.³⁶ In effect, this sort of malleability provides room for trial judges to more easily tailor outcomes to suit their personal tastes. Because most litigants decide to settle instead of litigating through an appeal,

particularly whether a court is likely to grant summary judgment and the expected time to trial. See, e.g., David J.F. Gross et al., *The Secret of a Good Bluff Is Not to Bluff: Using Trial Vision to Settle Your Case*, in 1 PRACTISING LAW INSTITUTE, PATENTS, COPYRIGHTS, TRADEMARKS, AND LITERARY PROPERTY COURSE HANDBOOK SERIES 370 (PLI Order No. 19028, Sept.–Nov. 2009). The large percentage of cases filed in the Eastern District of Texas is ample proof of such an assertion. See *supra* note 30 and accompanying text; see also Moore, *supra* note 29, at 903–04 (noting the aggregation of patent cases in a relatively small number of jurisdictions).

33. *In re TS Tech USA Corp.*, 551 F.3d 1315 (Fed. Cir. 2008).

34. See *id.*; see also *In re Nintendo Co., Ltd.*, 589 F.3d 1194 (Fed. Cir. 2009) (granting writ of mandamus to transfer patent infringement action out of the Eastern District of Texas); *In re Hoffmann-La Roche Inc.*, 587 F.3d 1333 (Fed. Cir. 2009) (same); *In re Volkswagen of Am. Inc.*, 545 F.3d 304 (5th Cir. 2008) (en banc) (same).

35. Replying to an earlier version of this Article, Professor Gruner asserts that I “fail[] to include in [my] analysis” that the “forum selection . . . [and] panel differences in determining patent case outcomes . . . are themselves probably the result of case selection effects.” Gruner, *supra* note 2, at 1042. Although I agree that selection effects in settlement likely account for some of the differences in particular forum and panel outcomes, it appears unlikely that these effects fully account for the differences. As for forum-specific effects, presumably, patentees would not have rushed into the Eastern District of Texas over the last ten years if the differential rates of decision on summary judgment and trial merely reflected the results of settlement selection by the parties, as opposed to actual differences in judicial standards and related decision making in that forum. On this basis, Gruner cannot merely posit that selection effects *may* in principle explain the differences. Rather, because the most plausible account points to *real* forum-specific differences, it is arguably his burden to provide some evidence to empirically support his alternative explanation. As for panel-specific effects, on similar reasoning, I reject Gruner’s contention in Part III, *infra*.

36. Communication from Anonymous Law Firm Partner to Ted Sichelman (2006).

panel-dependence thwarts the aims of horizontal uniformity (as well as vertical uniformity, which I address in the next part).

In sum, although the Federal Circuit has greatly improved horizontal uniformity, forum shopping remains a pernicious feature of the patent litigation landscape.³⁷ To be sure, strict oversight by the Federal Circuit in policing transfer motions, as well as more uniformity within that court, will help the cause. Yet because the high-cost structure of patent infringement actions means the district court is the de facto court of last resort in most cases, horizontal nonuniformity is very likely to remain an endemic aspect of patent litigation.

III. MYTH #2: THE FEDERAL CIRCUIT'S REVERSAL RATES FOR CLAIM CONSTRUCTION ARE NOT PROBLEMATIC

David Schwartz's tireless analysis of over 1,200 opinions and related briefs shows that the reversal rate for claim construction at the Federal Circuit was at a low of roughly 20 percent before the Supreme Court's 1996 decision in *Markman v. Westview Instruments (Markman II)*.³⁸ The reversal rate grew to about 25 percent shortly following *Markman II*, hit a high of about 32 percent following *Cybor Corp. v. FAS Technologies, Inc.*,³⁹ and has averaged 28 percent in the years since then.⁴⁰ Granted, Schwartz needs to finalize his multivariate regressions to control for a variety of variables to definitively tie the increase in reversal rates to the doctrinal shifts implemented in *Markman II* and *Cybor*.⁴¹ Yet, these post-*Markman II* numbers are, at least on the surface, abnormally high given that the

37. See Moore, *supra* note 29, at 924–27 (noting the variety of costs imposed by forum shopping).

38. 517 U.S. 370 (1996).

39. 138 F.3d 1448 (Fed. Cir. 1998) (en banc).

40. See Schwartz, *supra* note 4, at 1093–94. Importantly, Schwartz includes vacated and remanded cases in these rates. See David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223, 248–49 (2008) [hereinafter Schwartz, *Practice Makes Perfect?*]. See also E-mail from David L. Schwartz to Ted Sichelman (Apr. 22, 2009) (on file with author).

41. See David L. Schwartz, Presentation at Northwestern University School of Law, Searle Center on Law, Regulation, and Economic Growth: Research Roundtable on Empirical Studies of Patent Litigation (Nov. 12, 2009) (on file with author).

average issue-by-issue reversal rate at the Federal Circuit, excluding claim construction, is only about 18 percent.⁴²

Richard Gruner makes an admirable effort to explain this higher-than-normal reversal rate as the result of “selection bias.”⁴³ Specifically, he argues that the kinds of cases involving claim construction at the Federal Circuit are inherently more uncertain than the ordinary patent infringement case filed in district court.⁴⁴ Thus, in Gruner’s view, the seemingly high reversal rates should not be cause for alarm.⁴⁵ Although I believe that at least a portion of the high reversal rates reflects the selection of the most uncertain cases for appeal, for several reasons, selection bias is very unlikely to explain the entirety of the high rates.

First, based on the best available data, it appears that the background reversal rate for all areas of federal civil litigation—including summary affirmances—is roughly 18 percent,⁴⁶ compared

42. See *infra* Part III & figure 1.

43. Gruner, *supra* note 2.

44. See *id.* at 1007.

45. See *id.* at 1009.

46. See Kevin M. Clermont & Theodore Eisenberg, *Plaintiphobia in the Appellate Courts: Civil Rights Really Do Differ from Negotiable Instruments*, 2002 U. ILL. L. REV. 947, 951–52 (2002) (showing an 18 percent civil reversal rate, including partial affirmances). The Clermont-Eisenberg rates, like the rates from Schwartz and Moore, see *infra* note 47, appear to count all summary affirmances. See *infra* note 55. However, there is a concern that the Clermont-Eisenberg rates are too old to be reliable. Unfortunately, unlike Clermont and Eisenberg’s data, the most comprehensive recent data on reversal rates—which is compiled by the Administrative Office of the Courts (AO)—does not include partial affirmances in the reversal rate. See *infra* note 51 and accompanying text. However, Corey Yung calculated separate reversal rates that—while excluding summary affirmances—included and excluded partial affirmances. See *infra* note 54. Using Yung’s ratio of the two reversal rates, the Clermont-Eisenberg reversal rate adjusted to exclude partial affirmances would be roughly 11–12 percent, which is about the same as the most recent private civil reversal rates of 12–15 percent. See Administrative Office of the Courts, Table B-5, U.S. Courts of Appeals—Appeals Terminated on the Merits, by Circuit During the 12-Month Period Ending March 31, 2009, <http://www.uscourts.gov/uscourts/Statistics/FederalJudicialCaseloadStatistics/2009/tables/B05Mar09.pdf> [hereinafter AO, Appeals Terminated 2009] (reporting the reversal rates in a variety of civil cases across all circuits except the Federal Circuit); Administrative Office of the Courts, Table B-5, U.S. Courts of Appeals—Appeals Terminated on the Merits, by Circuit During the 12-Month Period Ending March 31, 2008, <http://www.uscourts.gov/uscourts/Statistics/FederalJudicialCaseloadStatistics/2008/tables/B05Mar08.pdf> (same); Administrative Office of the Courts, Table B-5, U.S. Courts of Appeals—Appeals Terminated on the Merits, by Circuit During the 12-Month Period Ending March 31, 2007, <http://www.uscourts.gov/uscourts/Statistics/FederalJudicialCaseloadStatistics/2007/tables/B05Mar07.pdf> (same).

This result provides strong evidence that the civil reversal rate has remained fairly constant over time. In any event, even if the civil reversal rate has increased, the remaining comparisons in this section indicate that the claim construction reversal rate is unduly high.

with about 28–32 percent for claim construction cases.⁴⁷ Similarly, Corey Yung—who performed an exhaustive analysis of civil litigation reversal rates (including partial affirmances but excluding summary affirmances)—found an average reversal rate for all cases of 26.2 percent (including remands),⁴⁸ which is substantially less than the 41 percent reversal rate for claim construction cases that do not result in summary affirmances.⁴⁹ When Yung limited his data to civil cases on de novo review in 2008, his rate only increased slightly, to 26.6 percent.⁵⁰ Of course, one could argue that claim construction reversal rates should be compared with rates in the most complex of civil cases, such as securities, bankruptcy, contract, or similar actions. Unfortunately, it appears that most of the available data on these narrow classes of cases are sparse, outdated, or unreliable.⁵¹

47. See Schwartz, *supra* note 4, at 1093; see also Schwartz, *Practice Makes Perfect?*, *supra* note 40, at 249 (“29.7% of the cases had to be reversed, vacated, and/or remanded because of an erroneous claim construction.”); Kimberly A. Moore, Markman *Eight Years Later: Is Claim Construction More Predictable?*, 9 LEWIS & CLARK L. REV. 231, 239 (2005) (“In the cases in which one or more term was wrongly construed, the erroneous claim construction required the Federal Circuit to reverse or vacate the district court’s judgment in 29.7% of the cases.”). Schwartz’s and Moore’s claim construction studies are the only ones to comprehensively account for Rule 36 summary affirmances in calculating reversal rates. See Gruner, *supra* note 2, at 996–98, 1000. Because other studies have failed to do so, their reported reversal rates are inflated. See *id.*

48. See Corey Rayburn Yung, *Flexing Judicial Muscle: An Empirical Study of Judicial Activism in the Federal Courts*, 105 NW. U. L. REV. (forthcoming 2011), available at <http://ssrn.com/abstract=1434742>.

49. E-mail from David L. Schwartz to Ted Sichelman (Jan. 8, 2009) (on file with author) (stating that the reversal rate in Schwartz’s data set was 41 percent excluding Rule 36 summary affirmances).

50. E-mail from David L. Schwartz to Ted Sichelman (Oct. 25, 2009) (on file with author) (relaying the results of unpublished analysis by Yung that segmented appeals by standard of review).

51. Using data from the AO, one study of Seventh Circuit reversal rates from 1982–87 found the total civil reversal rate (apparently including remands) to be 27.3 percent. Daniel Kessler, Thomas Meites & Geoffrey Miller, *Explaining Deviations from the Fifty-Percent Rule: A Multimodal Approach to the Selection of Cases for Litigation*, 25 J. LEGAL STUD. 233, 252 (1996). The researchers do not state whether they count partial affirmances in the reversal rate. See *id.* at 249. Even if they had, given the large disparity between this rate and the 18 percent overall civil reversal rate of Clermont and Eisenberg (which very likely includes all partial and summary affirmances), either the 1980s AO data excluded some summary affirmances or reversal rates have simply decreased. See Clermont & Eisenberg, *supra* note 46, at 952. Of course, the Seventh Circuit could have had a substantially higher reversal rate than the average among the regional circuits in the 1980s, but given current data, such a large disparity seems very unlikely. See, e.g., AO, Appeals Terminated 2009, *supra* note 46 (reporting that the highest private civil reversal rate for any circuit was no more than 25 percent greater than the national average).

For similar reasons, a study from the late 1980s by Judge Jon O. Newman finding a civil reversal rate in the Second Circuit Court of Appeals of 27 percent is unlikely to represent a figure

The most reliable and current data were compiled by the Administrative Office of the Courts (AO). The data report that the reversal rate of bankruptcy cases in fiscal year 2009 was 16.1 percent.⁵² Although this figure includes summary affirmances, unlike Schwartz's reversal rates, it does not include partial affirmances.⁵³ However, using the different rates (i.e., with and without partial affirmances) calculated by Yung for total civil reversals as a guide,⁵⁴ the bankruptcy reversal rate including partial affirmances would be roughly 25 percent, still noticeably lower than the claim construction reversal rates.

A relatively exhaustive study by Professors Kevin Clermont and Ted Eisenberg, albeit with AO data from 1988 to 1997, calculated reversal rates—including partial and apparently summary affirmances—for securities and contract cases. Each of these categories has relatively high reversal rates—29.4 percent and 22.8 percent, respectively—fairly close to, but still lower than, the claim construction rates.⁵⁵

Second, on an issue-by-issue basis, the Federal Circuit reverses lower court claim construction rulings much more than most other issues.⁵⁶ In particular, figure 1 shows average reversal rates at the Federal Circuit from 2000 to 2007 on an issue-by-issue basis for those issues appealed in at least twenty cases during this time period. The claim construction rates are derived from Schwartz's study.⁵⁷ I

worthy of comparison. See Jon O. Newman, *Study: A Study of Appellate Reversals*, 58 BROOK. L. REV. 629, 632 (1992).

52. AO, Appeals Terminated 2009, *supra* note 46.

53. *See id.*

54. E-mail from David L. Schwartz to Ted Sichelman (Apr. 22, 2010) (forwarding analysis by Corey Yung showing a 16.5 percent civil reversal rate when excluding partial affirmances).

55. *See* Clermont & Eisenberg, *supra* note 46, at 954–55. The Clermont-Eisenberg overall civil litigation reversal rate was 18 percent, which is about the same as the latest AO rates when accounting for partial affirmances. *See id.*; *supra* note 46. Since this figure is significantly lower than the Yung rates, this is strong evidence that the Clermont-Eisenberg and the latest AO data includes most or all of the summary affirmances. *See* Clermont & Eisenberg, *supra* note 46, at 952.

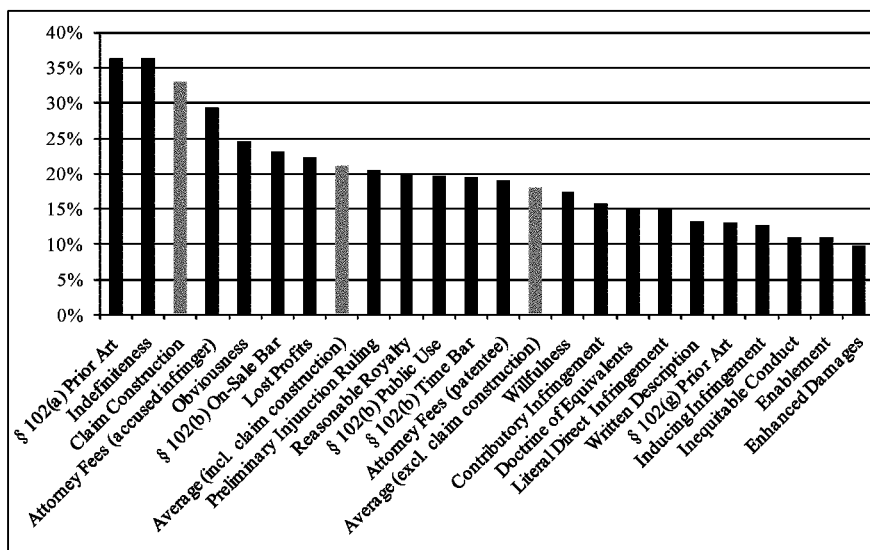
56. *See infra* figure 1.

57. *See* Schwartz, *Practice Makes Perfect?*, *supra* note 40; Schwartz, *supra* note 4. In calculating the claim construction issue-by-issue reversal rates, I aggregate the appellate decision on all claim terms into one “issue,” counting partial affirmances with remands as reversals. Of course, treating each claim as a separate “issue” would increase the disparity in reversal rates between claim construction and other issues.

assembled the remaining data from the University of Houston Law Center's U.S. Patent Litigation Statistics project,⁵⁸ which purports to contain data on all Federal Circuit opinions, including Rule 36 summary affirmances.⁵⁹

FIGURE 1

REVERSAL RATES BY ISSUE AT THE FEDERAL CIRCUIT (2000–2007)



As figure 1 shows, the average reversal rate⁶⁰ across all issues other than claim construction is 18 percent, and 21 percent for all issues including claim construction.⁶¹ Claim construction (at 33 percent) is near the top,⁶² only below section 102(a) anticipation (38

58. U.S. PATENT LITIGATION STATISTICS PROJECT, UNIV. OF HOUSTON LAW CTR., available at <http://www.patstats.org> [hereinafter PATSTATS] (last visited Mar. 7, 2009).

59. *See id.* Because the reversal rate substantially dropped between 2000–2004 and 2005–2007 in the Houston data set, it appears that the 2000–2004 data may be missing some (or all) of the summary affirmances. Thus, the reversal rates presented below—other than the claim construction rate, which was independently derived by David Schwartz—may be slightly inflated, which only strengthens the argument made here that the claim construction rate is unduly high.

60. The average rates are weighted by the total of number of cases involving each issue on appeal.

61. E-mail from David L. Schwartz to Ted Sichelman (Dec. 29, 2009) (on file with author) (describing claim construction reversal rates from 2000–2007).

62. *Id.* (showing that the reversal rate on a term-by-term basis was 33 percent during 2000–2007).

percent) and indefiniteness (38 percent)—which, to boot, are two issues that are heavily dependent on claim construction.⁶³ Nor is the high rate a reflection of the de novo standard of review for claim construction issues; many of the issues with lower percentages also receive de novo review, such as enablement,⁶⁴ obviousness,⁶⁵ and all appeals from summary judgment.⁶⁶

Gruner contends that the overall issue-by-issue reversal rates present an incomplete picture, because reversal rates for patentees and accused infringers can differ vastly on the same issue.⁶⁷ Figures 2 and 3 show the reversal rates for patentees and accused infringers that won at the district court level for the same issues as in figure 1.

63. In this regard, because multiple issues can be decided in one case on appeal, a reversal on claim construction could, for example, lead immediately to a reversal on indefiniteness. *See, e.g., Cordis Corp. v. Boston Scientific Corp.*, 561 F.3d 1319, 1331 (Fed. Cir. 2009) (“Indefiniteness under 35 U.S.C. § 112 ¶ 2 is an issue of claim construction and a question of law that we review de novo.”). In this instance, the data above would reflect a reversal in both the claim construction and indefiniteness categories. The same methodology applies across all cases with multiple issues. *See PATSTATS, supra* note 58 (noting that decisions on separate issues are separately coded).

64. *E.g., AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1238–39 (Fed. Cir. 2003).

65. *E.g., PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1359 (Fed. Cir. 2007). Several other studies have calculated obviousness reversal rates. Although the aim of this Article is not to exhaustively review and compare the results of these studies to the figures calculated here, taking into account the differing years and data sets of these studies, the results are roughly equivalent. *See* Christopher A. Cotropia, *Nonobviousness and the Federal Circuit: An Empirical Analysis of Recent Case Law*, 82 NOTRE DAME L. REV. 911, 931–32 (2007) (reporting a 45 percent reversal rate, including vacations, for 2002–05, but probably not including all Rule 36 opinions); Lee Petherbridge & R. Polk Wagner, *The Federal Circuit and Patentability: An Empirical Assessment of the Law of Obviousness*, 85 TEX. L. REV. 2051, 2077 (2007) (calculating a 35 percent reversal rate, including vacations, for obviousness for 1990–2005, but excluding Rule 36 opinions).

66. *E.g., Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1377 (Fed. Cir. 2007).

67. E-mail from Richard S. Gruner to Ted Sichelman (Nov. 30, 2009) (on file with author); *see also* Gruner, *supra* note 2, at 1060–61.

FIGURE 2

REVERSAL RATES BY ISSUE AT THE FEDERAL CIRCUIT FOR PATENTEES THAT WON AT THE DISTRICT COURT LEVEL (2000–2007)

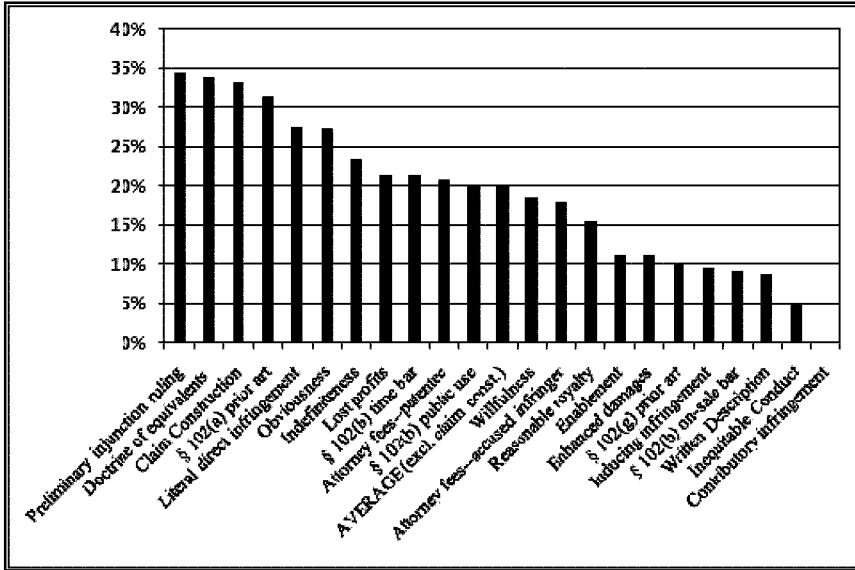
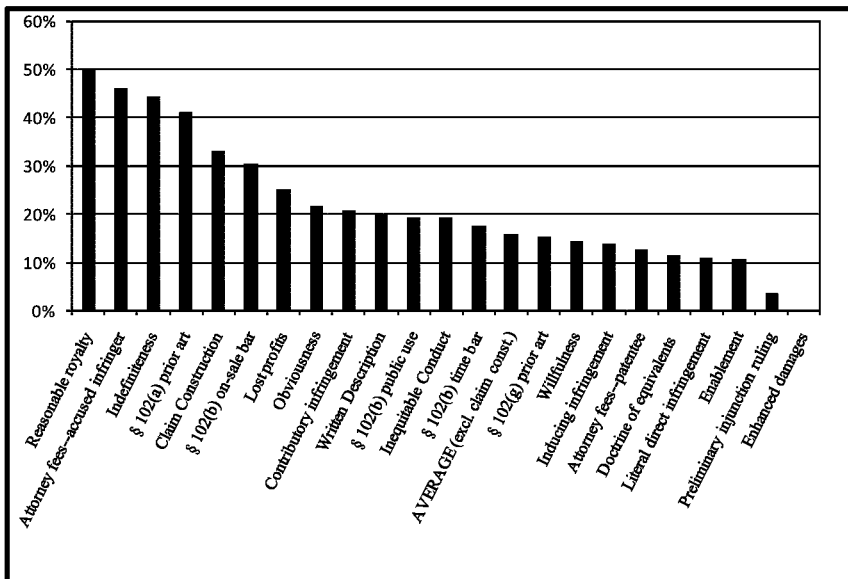


FIGURE 3

REVERSAL RATES BY ISSUE AT THE FEDERAL CIRCUIT FOR ACCUSED INFRINGERS THAT WON AT THE DISTRICT COURT LEVEL (2000–2007)



In this regard, Gruner suggests that the patentee average reversal rate may be significantly higher than the accused infringer rate, because patentees often have more at stake on appeal than accused infringers. Specifically, he notes that an invalidity determination on appeal wipes out the entire value of the patent for the patentee, which should induce patentees to bring weaker appeals on invalidity issues relative to accused infringers.⁶⁸ These weaker appeals are more likely to be reversed by the Federal Circuit. On this ground, Gruner contends that the claim construction reversal rates should not be as troubling when viewed in the context of party-specific rates.⁶⁹

As an initial matter, Gruner's position is only partially borne out by the data. Supporting his view, the reversal rate on section 102(a) prior art issues is 41 percent for appealing patentees and 31 percent for appealing accused infringers; for on-sale bar issues, 30 percent and 9 percent; for 102(g) art, 15 percent and 10 percent; and for indefiniteness, 44 percent and 24 percent. Yet, the rate for obviousness is 21 percent for appealing patentees versus 29 percent for appealing accused infringers; for 102(b) public use bars, 19 percent and 20 percent; and for 102(b) patent and publication bars, 18 and 20 percent. Thus, at least for some important issues that are appealed fairly often, appealing patentees do better than appealing accused infringers.

Moreover, the overall difference in average reversal rates across all issues for appealing patentees and accused infringers is fairly low. Specifically, the average issue-by-issue reversal rate (excluding claim construction) is 18 percent (when both parties are included), 20 percent (when only winning patentees are included), and 16 percent (when only winning accused infringers are included). Recall that the claim construction reversal rate for winning patentees and accused infringers (treated separately) is 33 percent alike. Thus, the claim construction reversal rate is still substantially higher than the either the average winning patentee or accused infringer reversal rates. As such, the slight asymmetry in reversal rates disaggregated by party does not appear to diminish the cause for concern.

68. Gruner, *supra* note 2, at 1022.

69. *See id.* at 1059–63.

At the symposium associated with this issue, Jeffrey Lefstin suggested that the claim construction reversal rate might fall on the high end because it is an issue that often must be decided by an appellate court before reaching other issues.⁷⁰ Expanding upon this rationale, one might surmise that rates for other issues are low, because the Federal Circuit can fully dispose of a case merely by reversing on claim construction (and a related issue like validity or infringement), without reaching most of the other issues on appeal. Specifically, in the event claim construction is not reversed, the appealing party has an arguably weaker-than-average case, which could explain lower reversal rates for other issues. There may be some force to this argument, but like Gruner's "selection effect" rationale, it is unlikely to explain the full increase for claim construction over the baseline reversal rate.

Although claim construction issues were decided in 744 appeals between 2000 and 2007,⁷¹ direct infringement and issues relating to the doctrine of equivalents were decided in 672 and 379 cases,⁷² respectively, but each had a relatively low reversal rate of 15 percent.⁷³ One might retort that claim construction issues are more complicated than infringement concerns. Yet, other seemingly complex issues—such as lost profits, written description, enablement, indirect infringement, and the doctrine of equivalents—have lower reversal rates.⁷⁴ Moreover, such an explanation does not rebut the descriptive hypothesis that claim construction reversal rates are abnormally high. While more data are needed on the rates of appealed issues relative to decided issues at the Federal Circuit to make a conclusive determination on Lefstin's suggestion, until such an analysis is available, there appears to be no strong reason to believe that the centrality of claim construction wholly accounts for its high reversal rates.

70. Ted Sichelman, Address at the *Loyola of Los Angeles Law Review* Symposium: The Federal Circuit as an Institution (Oct. 30, 2009) (audience question following author's presentation).

71. E-mail from David L. Schwartz to Ted Sichelman (Nov. 29, 2009) (on file with author).

72. These figures were compiled with the same University of Houston data set. *See supra* note 58.

73. *See supra* figure 1.

74. *See id.*

The issue-by-issue data are also consistent with the case-by-case reversal rate in fiscal year 2009 for the Federal Circuit, which was about 15 percent in patent actions appealed from district courts.⁷⁵ These figures compare with a reversal rate of 21 percent from the Court of International Trade, 14 percent from the Court of Appeals for Veterans' Claims, 8 percent for the Merit Systems Protection Board, and 17 percent for the Court of Federal Claims.⁷⁶ Thus, the claim construction rate is much higher than the average reversal rate for all patent cases and higher than the reversal rates in other types of actions.⁷⁷

Third, based on Schwartz's data, it appears that reversal rates rose after *Markman II* and *Cybor*.⁷⁸ A selection effect theory would need to explain this apparent increase on the basis of shifting settlement patterns. Although effective settlement rates increased slightly during this period (from 84 percent to 89 percent),⁷⁹ this small increase is unlikely to explain the relatively large increase (from 20 percent to 32 percent) in reversal rates over the same time frame.⁸⁰ There is no other indication offered by Gruner that the types of patent cases filed in federal court can explain this increase. Indeed, preliminary multivariate regression tests performed by Schwartz show no explanatory effects from other likely variables.⁸¹

In sum, surely a portion of the increase in claim construction reversal rates relative to average rates for civil cases and other patent issues is likely attributable to selection effects and higher rates of

75. U.S. Court of Appeals for the Federal Circuit, Affirmance and Reversal Rates for District Court Patent Infringement Appeals, <http://www.cafc.uscourts.gov/pdf/AffirmanceReversalRatesdct.pdf> (last visited Mar. 7, 2010).

76. See Table B-8, U.S. Court of Appeals for the Federal Circuit—Appeals Filed, Terminated, and Pending During the Twelve-Month Period Ended September 30, 2009 [hereinafter CAFC Appeals 2009], <http://www.cafc.uscourts.gov/pdf/b08sep09.pdf>.

77. As I explain more fully in Part IV, *infra*, these reversal rates—including the patent case rate—do not include partial affirmances and are calculated in a way that artificially reduces the reported rates. See *infra* notes 107–12 and accompanying text. However, even using the adjusted reversal rate that I calculate below, which is roughly 20–25 percent, the claim construction reversal rate is still significantly greater. See *id.*

78. See Schwartz, *supra* note 4, at 1093.

79. Kesan & Ball, *supra* note 10, at 271.

80. See Schwartz, *supra* note 4, at 1093.

81. See Schwartz, *supra* note 41.

appeal.⁸² However, these explanations do not appear to account for the full increase. Although complexity may play some role, this theory does not appear to fully explain the increase either, because the claim construction reversal rates are higher than those for other types of complex cases and for most other complex patent issues.

Nor do settlement outcomes appear to be immune from uncertainty in claim construction. Although roughly 85 percent of patent cases effectively settle,⁸³ they of course do so in the proverbial “shadow of the law,” which includes best estimates of what would happen at judgment.⁸⁴ While supposed agreement on results may drive settlement, as I noted earlier, the likely culprit in many (if not most) settlements is the high costs of litigation, which will often lead to settlement regardless of whether the parties agree on outcomes.⁸⁵ In this sense, uncertainty in claim construction outcomes may distort settlement amounts from the optimal result. Moreover, based on some rough calculations, it appears that about 25 percent of all patent cases enter the *Markman* phase,⁸⁶ and about 60 percent of those cases

82. However, contrary to Gruner’s contention, it seems unlikely that any sizable selection effects result from parties settling cases following oral argument. See Gruner, *supra* note 2, at 1024–29. Specifically, once argument is heard, the parties’ appeals costs are effectively sunk, since the likelihood of the case reaching the Supreme Court or being reheard at the Federal Circuit is relatively small (and the costs of filing and responding to a petition for certiorari or rehearing are generally low). In this event, there are essentially little to no litigation-cost savings to the parties from settling following oral argument, but prior to final judgment. Because it is presumably unusual for delay in judgment to force a settlement, it seems nearly all cases that reach oral argument will result in a judgment. See generally Richard L. Revesz, *Litigation and Settlement in the Federal Appellate Courts: Impact of Panel Selection Procedures on Ideologically Divided Courts*, 29 J. LEGAL STUD. 685, 707–08 (2000) (discussing incentives to settle cases following panel announcement in the context of the Priest-Klein hypothesis).

83. Kesan & Ball, *supra* note 10, at 271.

84. See Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979).

85. Thus, I disagree with Gruner’s contention that “[c]laim interpretations are so fundamental to establishing a basis for patent scope and patent enforcement value that it is hard to understand how the parties to a dispute would reach similar case value estimates and agree to case settlements unless the two parties reached parallel and similar conclusions about claim scope . . . as part of their analyses leading to their settlement agreements.” Gruner, *supra* note 2, at 1036, see also *id.* at 1039 (“Claim construction standards have a key and largely successful role in guiding the case value estimates of disputing parties to sufficiently similar levels to produce settlements.”). Rather, when parties settle primarily because the total stakes are roughly the same or less than remaining litigation costs, which appear to be a large percentage of settled cases, there is no need for parties to reach similar predictions on the outcomes of underlying claim construction issues. See *supra* Part II.

86. About 33 percent of patent infringement case dockets for cases filed in 2006 and 2007 contained the terms “*Markman*,” “claim construction,” or “claim interpretation.” See Westlaw,

result in appealable orders.⁸⁷ Yet it seems only about 15–25 percent of these latter cases settle after the *Markman* phase but before summary judgment or trial.⁸⁸ This relatively high number of cases entering the *Markman* phase shows that claim construction is an important aspect of the case for many litigants, but the relatively low settlement rates indicate that *Markman* orders do not have much force in providing the litigants with added certainty in outcomes.⁸⁹

Despite all of these arguments, replying to an earlier version of this Article, Gruner remains unconvinced. Specifically, he argues that the differences in claim construction reversal rates from those of other civil cases and other patent law issues do “not establish that selection effects are not at work in determining these rates.”⁹⁰ I fully agree with Professor Gruner that my analysis here does not *disprove*—in a statistically significant and robust empirical manner—that settlement selection effects fully explain the differential in claim construction reversal rates. Yet Gruner also admits that his analysis does not prove otherwise.⁹¹ Thus, the question becomes, given our limited available data, which account is more plausible. A simple hypothetical sheds some light on the

CourtExpress database (searched Jan. 11, 2010). This number most likely overestimates the number of cases that actually enter the *Markman* phase, because it likely includes cases with scheduling orders mentioning these phrases but that never reached briefing. *See id.* Based on a fairly exhaustive study calculating the rate of appealable *Markman* orders in patent infringement cases, via extrapolation, I adjusted the percentage reported in the text downward to 25 percent. *See* Joshua H. Walker & Xiangnong “George” Wang, *U.S. Claim Construction Orders 2004–2008*, LANDSLIDE, July/Aug. 2009, at 27 (reporting that roughly 14.5 percent of cases filed result in a claim construction order); *infra* note 87.

87. This percentage was generated by searching for “(Markman /10 order) OR (Markman /10 “claim construction”) OR (“claim interpretation” /10 order)” on Westlaw’s CourtExpress database for patent infringement cases filed in 2006 and 2007.

88. About 11–12 percent of all cases in recent years went to summary judgment or trial. UNIV. OF HOUSTON LAW CTR., PATSTATS, http://www.patstats.org/2008fy_Patent_Case_Disposition_Modes.doc (last visited Jan. 9, 2010). Using the 14–15 percent *Markman* order rate, this means that about 15–25 percent of cases settle after *Markman*, but before summary judgment or trial. In a non-scientific survey by the American Bar Association, attorneys reported that 29 percent of their cases settled following a *Markman* hearing. Although this number is slightly higher than the percentage I found in my quick study, it is still relatively low given that claim construction orders tend to eliminate disputes on many dispositive issues. *See* 1999 ABA Section of Intellectual Property Law, *1999 Markman Survey*, 18 A.B.A. SEC. PUB. I.P.L. 3 (2000).

89. *See* Dan L. Burk & Mark A. Lemley, *Fence Posts or Sign Posts? Rethinking Patent Claim Construction*, 157 U. PA. L. REV. 1743, 1762 (2009) (“And the prospect of appellate reversal may keep the parties litigating even after the *Markman* ruling.”).

90. Gruner, *supra* note 2, at 1059.

91. *See id.*

answer. Suppose for a minute that the Federal Circuit actually rolls a pair of dice to decide the outcome of claim construction appeals. If the number that appears is five or less, then the decision below is reversed; otherwise, it is affirmed. In this scenario, no matter what selection effects are at work, the reversal rate is a stable and high 28 percent,⁹² and due entirely to inherent randomness in adjudication at the Federal Circuit. Yet, in the absence of being able to draw back the curtain to directly witness the Federal Circuit's dice rolls, Gruner's story of selection effects is completely consistent with such an outcome. As Gruner argues, "[t]he impact of selection effects . . . varies with factors such as stake asymmetry . . . [.] the uncertainty of the parties in estimating the quality of their cases and case outcomes," endowment effects, relative risk-aversion, and a variety of other factors that, taken together, can result in a 28 percent reversal rate.⁹³ Indeed, with all of these factors at play, no matter what the Federal Circuit does on appeal—even if it adopts a rule that patentees always win—Gruner's selection effects theory could explain the outcome.⁹⁴ In a sense, Gruner's approach is like a conspiracy theory—it finds the same result no matter what underlying facts are introduced to rebut it.

And it is exactly because of the flexibility of Gruner's approach that we should be wary of it. Other than Gruner asserting that some of the data presented above are dubious because they were derived from different sources—and I noted this limitation, which I do not believe to be of significant import—he does not directly contest any of my arguments. Instead, he simply contends that my story does not foreclose an alternative view whereby selection effects in settlement account for the seemingly high claim construction reversal rates.⁹⁵ Yet, given that claim construction reversal rates are (1) generally

92. See Statistics of Dice Throw, <http://hyperphysics.phy-astr.gsu.edu/Hbase/Math/dice.html> (last visited Mar. 7, 2010).

93. Gruner, *supra* note 2, at 1059.

94. See *id.* at 1059 (“[I]f a change in these rates were to be detected, its source would need to be found in appellate case selection processes, not the sorts of factors mentioned that do not substantially influence claim construction reversal rates.”).

95. See *id.* (“[T]he fact that the reversal rates differ for several different types of cases does not establish that selection effects are not at work in determining these rates.”).

higher than reversal rates for other patent law issues,⁹⁶ and (2) higher than reversal rates for other types of complex cases,⁹⁷ the most straightforward inference is that the rates are probably abnormally high. As such, the burden should be on Gruner to provide a causal, empirically supported account of how his explains-in-principle-all-outcomes theory *specifically* rebuts this inference. As such, we should find that the best data available today—which show about a 30 percent reversal rate—raise a substantial cause for concern over the cases that are reversed on claim construction grounds.⁹⁸ Although some portion of the reversal rate is surely attributable to the uncertain nature of appeals and the complexity of the issues, it appears that “remedial” work by the Federal Circuit could substantially reduce the rate. It is to this and related issues that I turn next.

IV. MYTH #3: THE FEDERAL CIRCUIT HAS DRASTICALLY INCREASED VERTICAL NONUNIFORMITY

Taking the opposite tack to Gruner, as noted earlier, many appear to complain that an appeal to the Federal Circuit is a “coin flip,” with outcomes that are overly dependent on the specific panel of judges selected to decide a given appeal.⁹⁹ Although claim

96. Gruner contends that “the claim construction reversal rates shown in Professor Sichelman’s figures 2 and 3 (where rates for plaintiffs and defendants are properly disaggregated to reflect their different interests and circumstances as they pursue appeals from adverse results at trial) are at about the middle of the range for patent issues generally.” *Id.* at 1061. While a few more issues have substantially higher reversal rates when disaggregated by party, claim construction rates are still noticeably higher than average for both appealing patentees (33 percent vs. 13 percent) and accused infringers (33 percent vs. 24 percent). *See supra* figures 2 & 3. Thus, Gruner’s contention does not rebut my arguments.

97. *See supra* notes 53–55 and accompanying text.

98. Although I agree with Gruner that “studies of Federal Circuit reversal rates across diverse patent law issues . . . would benefit from the consideration of key control variables . . . like stake asymmetry of the parties potentially . . . and differing abilities of the parties to evaluate the strengths and weaknesses of their cases,” *infra* Part V, I strongly disagree that “we should, for now, leave it at that,” and ignore the seemingly high claim construction reversal rate until these more definitive studies are completed. Gruner, *supra* note 2, at 1063. Rather, given the high costs of uncertainty and inaccuracy in the claim construction process, it is essential to make inferences—as long as they are reasonably supported, which they are here—from the best available data in order to guide policymaking. *Cf.* Jody Freeman & Andrew Guzman, *Climate Change and U.S. Interests*, 109 COLUM. L. REV. 1531, 1539 (2009) (“The question for policymakers, after all, should be whether or not the costs of inaction are greater than the costs of action.”).

99. *See supra* note 1; Donald R. Dunner, Partner, Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, Washington, D.C., Remarks by Donald Dunner at the *Loyola of Los Angeles Law*

construction reversal rates may be abnormally high, the best available data do not support these views for most other patent law issues appealed to the Federal Circuit. As an initial matter, my sense is that many litigators and in-house counsel who regularly appear before the Federal Circuit engage in their own sort of “selection bias.” Specifically, they very likely forget the predictable—and recall the unpredictable—outcomes of their cases in front of the Federal Circuit.¹⁰⁰ On a related note, my guess is that many litigators tend to “drink their own Kool-Aid.” Specifically, because of an attorney’s interest in zealously representing a client, he may become biased, making it difficult to predict the outcome of an otherwise predictable case.¹⁰¹ Of course, there are several purely quantitative reasons to back up my position.

First, the reported background reversal rate (excluding partial affirmances) at the Federal Circuit is no more than 15 to 18 percent on a case-by-case basis.¹⁰² This rate is roughly the same as the

Review Symposium: The Federal Circuit as an Institution (Oct. 30, 2009) (“Predictability within the Federal Circuit is not uniform over the twenty-seven years of the Federal Circuit. When the Federal Circuit was first formed, I felt I could almost always predict the outcome of the case in which I was involved. In 2009, that level has dropped . . . and the reason is that, like other courts, this court’s decisions are very much panel-dependent.”).

100. See Michael Kubovy, *On the Pleasures of the Mind*, in *WELL-BEING: THE FOUNDATION OF HEDONIC PSYCHOLOGY* 138 (Daniel Kahneman et al. eds., 2003) (describing the tendency of people to recall outlier, rather than average, events).

101. See Jane Goodman-Delahunty et al., *Insightful or Wishful: Lawyers’ Ability to Predict Case Outcomes*, 16 *PSYCH. PUB. POL’Y & L.* 133 (2010) (finding in an empirical study of litigated cases that lawyers were overconfident in their predictions of case outcomes); Cassandra Burke Robertson, *Judgment, Identity, and Independence*, 42 *CONN. L. REV.* 1, 31–43 (2009) (describing the sorts of “biases [that] render the lawyer unable to either offer neutral advice or to accurately predict how decision makers will respond to various avenues of advocacy”).

Paul Morgan raises another interesting possibility explaining the relatively low reversal rates: delay. In particular, he writes, “But also where a party is facing a product injunction, or an in-house counsel is facing a possible career impa[ir]ment for losing at the [d]istrict [c]ourt [which is harder to predict], an appeal can delay the disaster, and the CAFC seems to hardly ever sanctions appeals for being frivolous even when they should.” Ted Sichelman, *Are Appeals at the Federal Circuit a “Coin Flip”?*, *PATENTLY-O*, Apr. 9, 2010, <http://www.patentlyo.com/patent/2010/04/are-appeals-at-the-federal-circuit-a-coin-flip.html?cid=6a00d8341c588553ef0133ec9448df970b> (comment from Paul F. Morgan).

102. See *supra* note 75 and accompanying text. As a point of additional comparison, the Federal Circuit’s average reversal rates—across all types of cases, not just patent actions—is below 15 percent (excluding partial affirmances). See *CAFC Appeals 2009*, *supra* note 76 (reporting a reversal rate of 11 percent); Table B-8, U.S. Court of Appeals for the Federal Circuit—Appeals Filed, Terminated, and Pending During the Twelve-Month Period Ended September 30, 2008, <http://www.cafc.uscourts.gov/images/stories/the-court/statistics/b08sep08.pdf> (reporting a reversal rate of 13 percent); Table B-8, U.S. Court of Appeals for the Federal Circuit—Appeals Filed, Terminated, and Pending During the Twelve-Month Period

reported reversal rate for private civil cases in other circuits.¹⁰³ Importantly, however, these reversal rates for the Federal Circuit and for the regional circuits do not include partial affirmances that result in remands. In response to a shorter version of this Article posted to the popular blog, *Patently-O*, Professor Mark Lemley remarked, “If you treat [the partial affirmances] as reversals, you would find that the full affirmance rate . . . is 50-60%, which sounds like a coin flip to me.”¹⁰⁴ In response to Professor Lemley’s critique, I performed a separate analysis of reversal rates by examining individual patent cases decided in fiscal year 2008 by the Federal Circuit.¹⁰⁵ In so doing, I discovered that the reversal rates reported by the Federal Circuit apparently are derived from not only substantive orders, but motions and many other types of dispositions.¹⁰⁶ As such, the Federal Circuit’s reported “partial affirmance” rates are not a reliable indicator of the percentage of cases effectively reversed.

Excluding nonsubstantive orders, based on my review of the underlying case data for fiscal year 2008 and extrapolating from that to other years, it appears that roughly only 10 to 15 percent of the cases are partially affirmed and remanded,¹⁰⁷ instead of the 20 to 25 percent reported by the Federal Circuit. On the other hand, excluding the nonsubstantive orders raises the overall reversal rate to roughly 20 to 25 percent, not the 10 to 20 percent reported by the Federal Circuit. Thus, if one includes partial affirmances in the overall reversal rate for substantive orders, the Federal Circuit’s reversal rate

Ended September 30, 2007, <http://www.cafc.uscourts.gov/images/stories/the-court/statistics/b08sep07.pdf> (reporting a reversal rate of 14 percent).

103. See *supra* note 46 and accompanying text. Although the Federal Circuit’s reported rates are not properly calculated, see *infra* notes 106–09 and accompanying text, it appears that the other regional circuits use the same misguided methodology. See *id.* Thus, a comparison of the reported rates is instructive.

104. Sichelman, *supra* note 101 (comments of Mark Lemley).

105. In particular, I retrieved and hand-coded patent cases in both Westlaw’s “CTAF” and “FIPPAT-CS” databases issued from October 1, 2007, through September 30, 2008.

106. In addition, it appears that the Federal Circuit counts as separate “cases” each of potentially multiple docket numbers assigned to a single actual case decided on appeal. See *generally* E-mail from David L. Schwartz to Ted Sichelman (May 10, 2010) (on file with author) (relaying the remarks of Paul Janicke to David Schwartz regarding the AO calculations on terminated and pending cases at the Federal Circuit).

107. In this regard, about 85 percent of all partial affirmances in substantive orders were remanded in FY-2008 for further consideration.

is a relatively high 30 to 35 percent.¹⁰⁸ Indeed, this number is higher than the reversal rates for other types of complex appeals—such as contracts, securities, and bankruptcy—which range from 20 to 30 percent.¹⁰⁹

On this ground, are appeals at the Federal Circuit indeed a “coin flip”? There are at least three reasons to generally answer this question in the negative. One, even though the 30 to 35 percent reversal rate for the Federal Circuit’s substantive orders is higher than the reversal rates for securities, contract, and bankruptcy cases—all between 20 to 30 percent—it appears that the AO data set used by Clermont and Eisenberg to calculate these rates includes nonsubstantive orders. Thus, if one were to exclude the nonsubstantive orders for these types of complex cases, it seems likely that their reversal rates would rise to about the level of the Federal Circuit’s substantive patent case reversal rate.

Two, attorneys—or, at least, neutral observers—should be able to predict to a much more accurate degree the outcome in any given case than the average reversal rate. Specifically, they know the applicable law and facts, as well as any special circumstances of their particular cases. Thus, one would expect that the ability to predict outcomes would, on average, yield more accurate odds than the 2-to-1 bet corresponding to the overall reversal rates.¹¹⁰

Three, claim construction, which—as I explained above—is reversed at much higher rates than other issues, appears in roughly

108. In a study of patent cases appealed from trial judgment to the Federal Circuit from 1993–1998, Kimberly Moore found a reversal rate, including partial affirmances, of 22 percent. See Kimberly Moore, *Judges, Juries, and Patent Cases—An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 397 (2000). However, since Moore’s data set was limited to tried cases, it likely substantially underestimated the overall reversal rate, because appeals from summary judgment are arguably reversed at much higher rates. Moreover, the implementation of *Markman* and *Cybor* very likely led to large increases in the overall reversal rate. See Schwartz, *supra* note 4, at 1095.

109. See *supra* notes 53–55 and accompanying text.

110. To a significant degree, this assertion implicitly assumes that most cases that are affirmed are relatively easy to predict. Based on my study of cases in FY-2008, about 40 percent of affirmances are issued with no opinion pursuant to Rule 36. Presumably, a neutral observer would not have difficulty predicting the outcomes of most of these cases. Another 25 percent of the affirmances were issued as non-precedential opinions—again, presumably, many of these outcomes would not be difficult to predict. As such, my assumption seems fairly reasonable.

40 to 50 percent of all appeals.¹¹¹ As such, a huge portion of the relatively high reversal rate appears to be driven by uncertainty in claim construction.¹¹² One might quip that even removing cases involving claim construction still leaves a high effective reversal rate—at least if one includes partially affirmed cases that are remanded. Yet, cases on appeal are not decided as a whole, but rather are disposed of on an issue-by-issue basis. It seems very likely that the high residual reversal rate is merely an artifact of the greater number of issues presented on appeal in patent cases than ordinary private civil cases. As noted earlier, on an issue-by-issue basis, when claim construction is excluded, the average reversal rate is 18 percent. Yet, if merely three issues are appealed, and the likelihood of any one issue being reversed is independent of the other two being reversed, then the chance that at least one of the three issues is reversed is 45 percent.¹¹³ However, a 45 percent chance of reversal does not necessarily mean that the outcome is generally unpredictable. Not only should attorneys be able to predict the outcome of any *specific* issue with much greater than 55 percent (i.e., 100 less 45 percent) accuracy, but also—as explained earlier—neutral observers should be able to achieve better than 82 percent (i.e., 100 less 18 percent) accuracy in predicting the outcome for each issue. Thus, removing claim construction from the calculus—and properly focusing on issues, not cases—the Federal Circuit appears to be roughly as predictable as other circuit courts, particularly for complex cases. As such, it appears the Federal Circuit is mostly undeserving of the sort of “coin flip” or “dice roll” status often attributed to it.¹¹⁴

111. E-mail from David L. Schwartz to Ted Sichelman (Apr. 22, 2010) (on file with author) (reporting from Schwartz’s previous study the raw number of cases in which claim construction issues appear).

112. In this regard, because claim construction often is determinative of the outcomes for many other issues, a reversal on a claim term may automatically lead to a reversal on other issues. *See supra* note 70 and accompanying text.

113. In particular, the odds are $1 - (0.82)(0.82)(0.82) = 0.4486$.

114. Importantly, the term “dice roll” as used by the IP counsel in the opening sentence of this Article refers to “random,” not to some calculable probability less than 50 percent. *See supra* note 1 and accompanying text. *Cf.* Sichelman, *supra* note 101 (comment from Dennis Crouch) (“However, most dice games involve odds that are different than 50/50. Assuming that the dice-game can offer 20/80 odds . . . [d]oes your empirical work do anything to dispel the notion that that the CAFC decision is any better than a roll of the dice?”).

One important corollary of this result, at least assuming judges are selected randomly for each appellate panel,¹¹⁵ is that the claim that panel-dependence substantially affects outcomes—as a statistical matter—simply cannot hold true, at least on average. Although panel-dependence may play a role for those issues with higher reversal rates, such as claim construction, obviousness, and lost profits, for many (if not most) issues, it seems to play a relatively minor role. Because many empirical studies by academics have focused on claim construction, obviousness, and damages, perhaps those results—which have been widely publicized—have distorted the views of practicing attorneys.

Returning to my earlier analysis of reversal rates more generally, even if Gruner’s selection bias theory does not fully account for seemingly high claim construction reversal rates, it does account for some of the problem. Whatever one’s view of settlement, a decent share of cases arriving at the Federal Circuit are likely to present difficult legal and factual issues. In other words, even if cost constraints cause many uncertain cases to settle, those cases with the most certain outcomes are likely to settle at much higher rates than those with uncertain outcomes.¹¹⁶ Thus, the Federal Circuit hears a skewed set of cases relative to those filed, which increases reversal rates.¹¹⁷ Because the Federal Circuit’s overall reversal rates for patent cases are in the same ballpark as, or less than, the rates for other complex cases in other circuits, one can view the average reversal rate largely as a function of parties selecting complicated and difficult-to-resolve issues for the Federal Circuit to decide. (Of course, my view is that claim construction is a special animal deserving of reform, which I address in a few paragraphs.)

Last, Mullally insightfully argues that the Supreme Court is tugging at the Federal Circuit to adopt a policy-driven, “standards”-based approach to adjudication, while the district courts and the

115. See Lee Petherbridge, *Patent Law Uniformity?*, 22 HARV. J.L. & TECH. 421, 444 (2009) (“Cases at the Federal Circuit are randomly assigned to judges. One can therefore postulate that panels of Federal Circuit judges receive not only a random distribution of lower court judgments, but also a random distribution of lower court judgments worthy of being added to the written body of law.”).

116. See Gruner, *supra* note 2, at 1005–06 (citing George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984)).

117. See Gruner, *supra* note 2, at 1006.

Patent Office yearn for a doctrine-driven, “rules”-based approach.¹¹⁸ Although I do think Mullally’s thesis partly explains some of the uncertainty in patent law doctrine, focusing on the handful of Supreme Court reversals in recent years distorts the relative stability of decision making at the Federal Circuit. Despite the Federal Circuit’s string of defeats at the Supreme Court, it is important to recognize that the Supreme Court reverses in roughly 75 percent of all discretionary cases it hears.¹¹⁹ In this regard, the Court typically grants certiorari either when there is a circuit split or when a substantial number of justices disagree with the reasoning or outcome of the circuit court’s opinion regarding a matter of significant import.¹²⁰ Since there are almost no circuit splits involving patent issues, when the Court decides to take a patent case from the Federal Circuit, the odds are heavily stacked in favor of reversal. Although the Supreme Court has recently heard a greater number of patent cases, my sense is that this trend is likely to slow. Additionally, even for the cases the Court has heard, other than *KSR International v. Teleflex, Inc.*¹²¹ and *eBay Inc. v. MercExchange, L.L.C.*,¹²² it is unlikely that the Court’s opinions will have much of a jurisprudential effect on patent prosecution, licensing, or litigation. Specifically, opinions like *Merck v. Integra*,¹²³ *Microsoft v. AT&T*,¹²⁴ *Quanta v. LG*,¹²⁵ and *MedImmune v. Genentech*,¹²⁶ concern doctrines that do not appear frequently, are not economically important, can easily be avoided, or do not have substantial impact in practice.¹²⁷

118. See Mullally, *supra* note 3, at 1126; see also Peter Lee, *Patent Law and the Two Cultures*, 120 YALE L.J. (forthcoming 2010) (contrasting the Supreme Court’s “flexible, holistic” approach to the adjudication of patent law disputes with the Federal Circuit’s “formalistic, inquiry-truncating” approach).

119. See Stephen J. Wermiel, *Supreme Court Reversals: Exploring the Seventh Circuit*, 32 S. ILL. U. L.J. 641, 643–44 (2008); *The Supreme Court, 2003 Term—The Statistics*, 118 HARV. L. REV. 497, 505 tbl.II(D) (2004).

120. See Timothy S. Bishop & Jeffrey W. Sarles, *Petitioning and Opposing Certiorari in the U.S. Supreme Court* (1999), <http://library.findlaw.com/1999/Jan/1/241457.html>.

121. 550 U.S. 398 (2007).

122. 547 U.S. 388 (2006).

123. *Merck KGaA v. Integra Lifesciences I, Ltd.*, 545 U.S. 193 (2005).

124. *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437 (2007).

125. *Quanta Computer, Inc. v. LG Elec. Inc.*, 553 U.S. 617 (2008).

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

127. According to the University of Houston’s project on patent litigation data, only five cases involving the experimental use exemption in *Merck v. Integra* and one case involving the

Even the Court's recent opinion in *Bilski v. Kappos*¹²⁸ is unlikely to have a significant doctrinal impact in the long run.¹²⁹ Thus, the recent string of reversals should cast little doubt on the general consistency of the Federal Circuit in affirming lower court opinions.

Nonetheless, Mullally's recognition that the Federal Circuit has been pulled in the direction of bright-line rules by the district courts and the Patent Office deserves further reflection, especially in the context of claim construction. Specifically, in its quest for predictability, the Federal Circuit has adopted a number of "canons" of claim construction, which—while seemingly instantiating a formal regime of transparent rules—are internally contradictory and rest on flawed premises.

One important example of such internal inconsistency is the palpable conflict between the rule that claims should be interpreted in view of the patent specification and the rule that limitations from the specification should not be imported into the claims when

foreign infringement issue at stake in *Microsoft v. AT&T* were appealed and decided by the Federal Circuit during 2000–2007. See PATSTATS, *supra* note 58. As for the exhaustion issue in *Quanta* and the licensing issue in *MedImmune*, numerous articles have appeared advising attorneys how to evade the rules set forth in those opinions. See, e.g., John W. Schlicher, *Patent Licensing, What to Do After Medimmune v. Genentech*, 89 J. PAT. & TRADEMARK OFF. SOC'Y 364 (2007); John W. Schlicher, *The New Patent Exhaustion Doctrine of Quanta v. LG: What It Means for Patent Owners, Licensees, and Product Customers*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 758 (2008).

128. 130 S. Ct. 3218 (2010).

129. Although the *Bilski* opinion is important to the extent that the Federal Circuit is very likely to find software-related inventions patentable subject matter, this result would merely return the doctrine to nearly the same state as that pre-*Bilski*. See Shubha Ghosh, *Guest Post on Bilski: Throwing Back the Gauntlet*, PATENTLY-O, June 29, 2010, <http://www.patentlyo.com/patent/2010/06/guest-post-on-bilski-throwing-back-the-gauntlet.html> ("Specifically, the Court has now revived the *Gottschalk-Parker-Diehr* line of cases, which were established before the creation of the Federal Circuit and which the Federal Circuit had distilled over time into the expansive 'useful-concrete-tangible' approach to patentable subject matter . . ."). Although the most "pure" of business method claims—for example, hedging and tax avoidance inventions not tied to a computer—are now very likely verboten, in actuality, very few of these types of applications are filed each year. For example, a quick Lexis search of patent applications filed before the Federal Circuit's opinion in *Bilski* and published from January 1, 2010, to February 1, 2010, in class 705—the class under which nearly all business methods fall—shows that at least 467 of 537 (87 percent) of applications are very likely to pass the *Bilski* test to be implemented by the Federal Circuit. See Lexis, U.S. Pre-Grant Publications Database (searching terms "CL (705) and CLAIMS (software or computer or telephone or network or chip or machine or battery or hardware or radio or server or processor)" and date range between January 1, 2010, and February 1, 2010). So, at most, it appears 1500 or so applications per year will be rejected as too "abstract" for patenting. Thus, in the long run, the Court's opinion is not likely to have a significant effect on the day-to-day practice of patent law relative to pre-*Bilski* doctrine.

construing them. Indeed, even the Federal Circuit has recognized this tension: “Moreover, we recognize that the distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim can be a difficult one to apply in practice.”¹³⁰

Yet, the Federal Circuit’s resolution to this dilemma, apparently driven by its desire to promulgate predictable rules, founders as a hollow, formal platitude. In particular, the en banc court in *Phillips v. AWH Corp.*¹³¹ advised that “the line . . . can be discerned with reasonable certainty and predictability if the court’s focus remains on understanding how a person of ordinary skill in the art would understand the claim terms.”¹³² Yet the problem with such a formulation is that a person having ordinary skill in the art (PHOSITA) generally cannot understand a disputed claim term without knowing the applicable law. As the Supreme Court recognized in *Markman II*, “the claims of patents have become highly technical in many respects as the result of special doctrines relating to the proper form and scope of claims that been developed by the courts and the Patent Office.”¹³³

Thus, resorting to the hypothetical PHOSITA cannot resolve the dilemma.¹³⁴ In another article in this symposium issue, Lee Petherbridge puts it more bluntly: “[W]hen it comes to claim construction, judges are largely free to conclude what they want, by whatever means they want.”¹³⁵ In this vein, it appears that typically unstated judicial ideologies influence judges, whether conspicuous or not, to choose one of the competing canons in the cases in which they conflict.¹³⁶ But instead of conclusorily choosing a rule of

130. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc).

131. 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

132. *Id.* (emphasis added).

133. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389 (1996) (internal quotation marks and citation omitted).

134. Lee Petherbridge, *On the Development of Patent Law*, 43 LOY. L.A. L. REV. 893, 910 (2010).

135. *Id.* at 939.

136. See R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105 (2004) (finding significant differences in claim construction outcomes based on the overriding methodology of the Federal Circuit panel); Kelly Casey Mullally, *Patent Hermeneutics: Form and Substance in Claim Construction*, 59 FLA. L. REV. 333, 333–39 (2007) (describing several methodologies for

decision, the Federal Circuit would arguably do well to follow the Supreme Court's penchant for expressly stating policy choices.¹³⁷ In other words, since the differing "rules" often lead to irreconcilable results that can only be resolved by policy choices, the Federal Circuit would provide more guidance—and, hence, more stability—by explicitly considering such policies in its opinions, rather than promulgating a façade of formalism.

V. CONCLUDING REMARKS: THE IMPORTANCE OF FURTHER INVESTIGATION

This Article has examined and rebutted, *prima facie*, three myths about uniformity at the Federal Circuit. First, although the Federal Circuit has substantially reduced nonuniformity across the circuits and their district courts, it has not eradicated the problem, and forum shopping remains a recurring weakness of the patent system. Second, claim construction reversal rates not only appear high, but after considering a variety of explanations—including selection bias—actually are high, especially when compared with other patent law issues. The Federal Circuit's adoption of competing canons of interpretation—and its quixotic belief that a person of ordinary skill in the art can usually unambiguously interpret a disputed claim term—are likely the culprits. As such, the Federal Circuit could

interpreting patent claims); Jeanne C. Fromer, *Claiming Intellectual Property*, 76 U. CHI. L. REV. 719, 769 (2009) ("Much will depend on how broadly or narrowly the peripheral claims have been written and then further on the interpretive ideology deployed."). By ideologies, of course, I do not mean political ideologies, but rather a judge's view of the role of patent system. Cf. Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 27 (2001) (finding no significant differences in how Republicans and Democrats construe patent claims).

137. See generally Stuart Minor Benjamin & Arti K. Rai, *Fixing Innovation Policy: A Structural Perspective*, 77 GEO. WASH. L. REV. 1, 18 (2008) ("Perhaps even more problematic, particularly in the face of the broad, open-ended language of the patent statutes, is the disavowal of explicit policy analysis by the Federal Circuit."); Donald S. Chisum, *The Scope of Protection for Patents After the Supreme Court's Warner-Jenkinson Decision: The Fair Protection—Certainty Conundrum*, 20 SANTA CLARA COMPUTER & HIGH TECH. L.J. 13, 62 (2003) ("Unfortunately, to date, . . . the Federal Circuit [has] attempted to resolve the issues without explicit reference to policy analysis, relying instead primarily on case precedent and judicial doctrine."); Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1671 (2003) (lamenting that "[t]he Federal Circuit has proven particularly resistant to considering patent policy in making its decisions"); Professor Rochelle Dreyfuss, New York University Law School, Remarks at the *Loyola of Los Angeles Law Review* Symposium: The Federal Circuit as an Institution (Oct. 30, 2009) (arguing that the Federal Circuit would develop a more coherent body of law by expressly addressing policy concerns in its opinions).

probably reduce the reversal rate by designating default canons in the event of a conflict, and by expressly discussing the policy-related aspects of claim construction in its opinions. Last, although claim construction reversal rates seem unduly high, based on the best available evidence, the Federal Circuit's reversal rates in patent cases overall are roughly the same as or lower than reversal rates for complex cases in other circuits. Thus, it seems a mischaracterization to term appeals at the Federal Circuit as a "roll of the dice" or a "coin flip."

As noted, my analysis here is only a *prima facie* rebuttal of these myths because more data and analysis are needed for conclusive determinations. Specifically, data are needed on the number and types of issues raised (as opposed to decided) on appeal, settlement terms, the likely outcomes of cases that were settled, and the ability of attorneys to accurately predict case outcomes over the life of a case. Also, more in-depth studies of issue-by-issue reversal rates and a more complete set of pre-Federal Circuit data are essential. Indeed, such data would not only be helpful in determining the extent of uniformity in the patent system, but also in answering the age-old question of whether patents promote or hinder social welfare overall.