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SHOPPING FOR REVERSALS: How Accuracy Differs Across Patent Litigation Forums

Teresa Lii*

This study analyzes the rate of reversal on appeal of each district court for the most popular patent litigation forums in the United States. Alarming, this study finds that district courts which have been shopped for by litigants may also be the courts that are most often applying patent law erroneously. Among these districts is the notoriously patentee-friendly Eastern District of Texas, which has attracted huge volumes of litigants to its dockets in recent years.

Although forum shopping has always antagonized the fairness of civil proceedings, it is of special problem in the context of patent litigation. Where billions of dollars may be at stake for companies being sued for patent infringement, the equal, fair and standardized application of patent law is especially important. However, this study finds that district courts may be applying patent law incorrectly at very different rates, with some courts being reversed on appeal at much higher rates than others. Because the most popular courts, those that have been “shopped” for, also appear to be the courts that are most frequently applying the law incorrectly, in those courts there is much greater risk of expenses and inefficiencies associated with the appeals and re-litigation of remanded cases, and the lack of assurance in not knowing whether the law has been correctly applied in any one case. This study can bring more certainty to patent litigators, shedding more light on the effect that litigating in a particular forum may have on the ultimate outcome of a patent case.

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Introduction

Apple, Yahoo!, Google, Microsoft, Sony, Cingular, FedEx, Nokia, Samsung, 3M, Oracle, Skype, Wal-Mart, Honeywell, Nissan, Hyundai, Morgan Stanley, Verizon, Acer, Nintendo, Genentech. And the docket goes on.

This is not a list of the most profitable and well-known companies in the United States of America, although certainly most of them are Fortune 500 household names. It is not a list of the companies with the most advanced technologies or sophisticated products. Rather, it is a list of companies that have been sued, in only the past three years, for patent infringement. Another thing that these companies have in common is that they were all forced to litigate their patent infringement cases in the Eastern District of Texas.

For a company like Apple, worth more than \$508 billion in stock,¹ getting the law right in a patent case that could be worth \$1.67 billion² is important. Getting the law right in *several* patent suits that could potentially all be worth that amount is even more important. This is the situation that these companies are now facing. Yet, because of the notoriously high reversal rate attributed to patent litigation, said to be as high as 53%,³ none of these companies can ever be certain that the law *will* be properly applied to their cases.

While many studies have attempted to pin down the precise rate of reversal for various types of patent cases, no study has yet researched the differential rates of reversal of different district courts. This type of research, in light of the recent phenomenon of patent litigation forum shopping,⁴ is all the more relevant to today's patent world. While certain forums, such as the Eastern District of Texas, have become spectacularly popular for litigation,⁵ there is little evidence that they are getting the law right – i.e., applying the law accurately, in most cases.⁶ The idea that a single popular district, deciding a plurality of all patent cases, could be applying the law incorrectly in around half of its cases is simply frightening. This is especially true in the context of the huge damages verdicts or even settlement amounts determined from what could be an incorrect application of the law.

This study analyzes the rate of reversal on appeal to the Federal Circuit of each district court for the most popular patent litigation forums in the United States. A high rate of reversal is presumed to imply low accuracy. Alarming, this study finds that the most populated and well-known district courts may also be the courts that are most often applying patent law inaccurately.

¹ Zoe Fox, *How Much is Apple Worth?*, Mashable Business (May 02, 2012) <http://mashable.com/2012/05/02/apple-worth/> (last visited June 16, 2012).

² William McQuillen, *Abbott Told to Pay Record \$1.67 Billion Award to J&J*, Bloomberg L.P. (June 29, 2009 9:32 PM), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aF0Qoxe0JCiw> (last visited June 16, 2012).

³ *Cyber Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1476 (Fed. Cir. 1998) (Rader, J., dissenting).

⁴ Black's Law Dictionary (9th ed. 2009). Forum shopping is defined as the "practice of choosing the most favorable jurisdiction or court in which a claim might be heard."

⁵ Yan Leychkis, Note, *Of Fire Ants and Claim Construction: An Empirical Study of the Meteoric Rise of the Eastern District of Texas as a Preeminent Forum for Patent Litigation*, 9 Yale J.L. & Tech. 193, 204 (2007).

⁶ In this study, "accuracy" is construed to mean "in accordance with the Federal Circuit". This terminology can certainly be contested, but as the Federal Circuit has final say in most patent cases, it will be accepted for this study.

These courts include the Eastern District of Texas and the District of Delaware, which may both merit further study and investigation, to discover the factors leading to such high rates of reversal.

Part I provides a brief history of forum shopping within patent litigation. Part II analyzes forum shopping within the context of the Eastern District of Texas, which has exploded in popularity for patent litigation in the last decade. Part III then investigates the current statistics on patent litigation accuracy, and addresses the specific problems it perpetuates. Part IV provides the data and results of an empirical study to determine the rate of reversal on appeal of the busiest patent litigation dockets in the United States, and analyzes the rates for significance with respect to the average rate of reversal for all dockets.

I. History of Forum Shopping in Patent Litigation

Patent litigators have long known that not all district courts were created equal. Patent law is governed by federal statute under Title 35 of the United States Code,⁷ and therefore presents a federal question that is almost always litigated in federal district courts.⁸ This, in addition to the long reach of patent jurisdictional and venue rules, means that patent litigants can potentially be hailed into any forum to answer for patent-related claims.⁹ Yet, patent litigation has remained concentrated in just a few courts across the nation.¹⁰

In an ideal world, because of the federal jurisdiction that governs it, patent law would be a uniform body of law, with district court judges taking their mandates from Title 35 and clear case law precedent.¹¹ Perhaps the most important source of precedent in the world of patent litigation is the United States Court of Appeals for the Federal Circuit. This Court was created out of a Congressional desire for patent law uniformity across district courts.¹² Indeed, an empirical study by David Krohn and Emerson Tiller has established that Federal Circuit case law is more frequently cited in patent litigation, and thus presumably more authoritative, than Supreme Court patent case law.¹³ However, although the Federal Circuit has considerably

⁷ 35 U.S.C. § 101 et. seq.

⁸ See 28 U.S.C. § 1338(a) (“The district courts shall have original jurisdiction of any civil action arising under any Act of Congress relating to patents, plant variety protection, copyrights and trademarks. No State court shall have jurisdiction over any claim for relief arising under any Act of Congress relating to patents, plant variety protection, or copyrights.”)

⁹ See *Burger King Corp. v. Rudzewicz*, 471 U.S. 462, 487 (1985) (finding federal jurisdiction under a broad set of standards.)

¹⁰ See Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. Rev. 889, 9003 (2001) (finding that “most patent cases are brought in only a handful of jurisdictions.”)

¹¹ Craig Allen Nard & John F. Duffy, *Rethinking Patent Law’s Uniformity Principle*, 101 Nw. U. L. Rev. 1619, 1620 (2007).

¹² The Federal Circuit itself has commented on this mandate:

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 . . . This Court was created, as contemplated by the Congress, to achieve uniformity and to reduce uncertainties in this area.

Panduit Corp. v. All States Plastic Mfg. Co., 744 F.2d 1564, 1573–74 (Fed. Cir. 1984) (internal citation and punctuation omitted).

¹³ David R. Pekarek Krohn & Emerson H. Tiller, *Federal Circuit Patent Precedent: An Empirical Study of Institutional Authority and IP Ideology*, 3, Faculty Working Papers, Paper 42, 3

<http://scholarlycommons.law.northwestern.edu/facultyworkingpapers/42> (“Using a variety of citation approaches

reduced the “plethora of appellate forums and often-conflicting precedents for patent infringement actions,” it has still failed to establish such complete uniformity in patent law.¹⁴ Forum shopping remains rampant in patent litigation, with studies showing that the majority of patent litigation is concentrated in a mere handful of district courts.¹⁵

Built into the United States Code is the option for litigants to pick and choose precisely which forum is most convenient for the bringing of a lawsuit. This fact has been central to the explosion of forum shopping in present-day patent litigation. According to the United States Code, a patent suit may be brought in any venue in which (1) the defendant resides, or (2) where the defendant has committed acts of infringement and has a regular and established place of business.¹⁶ Prior to 1957, Supreme Court precedent held that patent litigation was exclusively governed by § 1400(b) and not broadened by the application of § 1391(c).¹⁷ In the case of a corporate defendant, therefore, the only available forum was the one in which the defendant was incorporated.¹⁸ This limitation, until recently, presumably acted as some measure of deterrent to forum shopping in patent litigation.¹⁹

However, in 1988, Congress amended § 1391(c) to state that a corporate defendant “shall be deemed to reside in any judicial district in which it is subject to personal jurisdiction at the time the action is commenced.”²⁰ Two years later, the Federal Circuit held in *VE Holding Corp. v. Johnson Gas Appliance Co.* that this new definition of “reside” applied not only to the general venue statute of § 1391, but also to the patent litigation statute of § 1400(b).²¹ Patent plaintiffs, then, were suddenly allowed to bring their suits in any district in which a corporate defendant had sufficient minimum contacts so as not to violate traditional notions of fair play and justice.²²

and statistical tests, we find that federal district courts treat the Federal Circuit as more authoritative (compared to the Supreme Court) on patent law, than they treat the regional circuits (compared to the Supreme Court) on copyright law.”)

¹⁴ Ted Sichelman, *Myths of (Un)Certainty at the Federal Circuit*, 43 LOY. L. REV. 1161, 1165–71 (2010).

¹⁵ Moore, *supra* note 10, at 902–03.

¹⁶ 28 U.S.C. § 1400 (b) (“Any civil action for patent infringement may be brought in the judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business.”)

¹⁷ *Fourco Glass Co. v. Transmirra Prods. Corp.*, 353 U.S. 222, 229 (1957) (Prior to 1988 amendments, § 1391(c) read only that “A corporation may be sued in any judicial district in which it is incorporated or licensed to do business or is doing business, and such judicial district shall be regarded as the residence of such corporation for venue purposes.”)

¹⁸ See *Manchester Modes, Inc. v. Schuman*, 426 F.2d 629, 632 (2d Cir. 1970) (holding that “we find it exceedingly hard to believe Congress had any idea that by enacting § 1391(c) it was allowing a corporation which did business in a multitude of districts to sue in any of them irrespective of the residence of the defendant.”)

¹⁹ See *VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1575, 1582–83 (Fed. Cir. 1990) (noting that “the ‘freezing’ of patent venue as a result of *Fourco* has made patent venue an anomaly” by “unduly shield[ing] a corporate infringer.”) (internal citation omitted). See also Jeanne C. Fromer, *Patentography*, 85 N.Y.U. L. Rev. 1444 (2010) (arguing that restricting venue in patent litigation to a defendant’s principal place of business would decrease on forum shopping).

²⁰ 28 U.S.C. § 1391(c).

²¹ See *VE Holding Corp.*, 917 F.2d at 1583–84 (holding that, for patent-related civil suits that did not involve infringement claims (e.g. a declaratory judgment suit), the general venue statute of § 1391 applies.)

²² See *International Shoe Co. v. Washington*, 326 U.S. 310, 316 (1945) (setting out the present-day test for personal jurisdiction requiring a defendant to have minimum contacts with the forum such that the maintenance of the suit does not offend traditional notions of fair play and substantive justice).

For all practical purposes, this meant that the doors to every district court in America had been thrown wide open to patent litigation.

Yet, litigants soon found that jurisdictional equality in patent litigation was not to be had. In then-Professor, now Judge, Kimberly Moore's landmark 2001 empirical study of forum shopping in patent litigation, she confirmed what many already suspected: nearly 50% of all patent litigation was concentrated in a mere ten district courts.²³ Among the top five "chosen" districts were the Central District of California, the Northern District of California, and the Southern District of New York.²⁴ Furthermore, the concentration of litigation in these district courts was disproportionately high relative to each of these forums' general populations, suggesting that the large numbers of patent suits filed in these districts could not be explained simply by their large populations.²⁵

In Moore's study, she noted that plaintiffs were attracted to different forums for a variety of reasons, including, but not limited to, perceived favorability to patentees.²⁶ In the Eastern District of Virginia, for example, she postulated that plaintiffs there were attracted to the relatively short litigation resolution time of 0.43 years.²⁷ Regardless of the reasons for plaintiffs' affinities for each district, forum shopping was rampant, suggesting that the Federal Circuit had failed to achieve its goal of uniformity in patent law.²⁸

II. The Eastern District of Texas: A Case Study in Present-Day Forum Shopping

Forum shopping remains alive and well today.²⁹ However, as early as 2006, the busiest district courts were no longer precisely the same as those identified by Moore.³⁰ Certain districts are still highly prominent in patent litigation, including the Southern District of New York, the Eastern District of Virginia, and the District of New Jersey.³¹ Others, including the Southern District of Florida and the District of Minnesota have decreased in traffic, while the Northern District of Illinois has decreased in importance.³² Perhaps the most important development,

²³ Moore, *supra* note 10, at 902–03.

²⁴ *Id.*

²⁵ *Id.* at 904.

²⁶ *See id.* at 916–17 (In Judge Moore's study, patentees prevailed in 58% of all patent cases from 1995 to 1999. However, some of the busiest districts, including the Districts of Massachusetts and Delaware, evidenced relatively low patentee win rates. Thus, the favorability of a particular forum to the patentee (and plaintiff, and thus forum selector in most situations) could not explain all instances of forum shopping.); *contra*, Scott Atkinson, Alan Marco & John Turner, *The Economics of a Centralized Judiciary: Uniformity, Forum Shopping, and the Federal Circuit*, 52 J.L. & Econ. 411, 438 (2009) (a 2009 study arguing that forum shopping on the basis of validity rates ceased in the 1970s.) As will be discussed *infra*, Moore found that forum shopping in her study was the result of a variety of factors that may or may not include a forum's patent validity rates.

²⁷ *See id.* at 907–08.

²⁸ *See id.* at 893.

²⁹ *See e.g.* Chester S. Chuang, Offensive Venue: The Curious Use of Declaratory Judgment to Forum Shop in Patent Litigation, 80 Geo. Wash. L. Rev. 1065,(2012); Mark A. Lemley, *Where to File Your Patent Case*, 38:4 AIPLA Q.J. 1 (2010); Roderick R. McKelvie, *Forum Selection in Patent Litigation: A Traffic Report for 2006*, Covington & Burling (2007); Alisha K. Taylor, Note, *What Does Forum Shopping in the Eastern District of Texas Mean for Patent Reform?*, 6 J. Marshall Rev. Intell. Prop. L. 570 (2007)..

³⁰ *See* McKelvie, *supra* note 30, at 2 (listing the top ten districts for patent filings in fiscal year 2006).

³¹ *See* Lemley, *supra* note 30, at 6.

³² *Id.*

however, is the rise of the Eastern District of Texas as the newest, and most notorious, go-to forum for patent plaintiffs.³³

This forum, a so-called “rocket docket”³⁴ has been hailed as the answer to litigants’ prayers for speedy, efficient, and overwhelmingly plaintiff-friendly relief.³⁵ The Eastern District of Texas’s appeal lies chiefly in two factors: the speed and efficiency of its local patent litigation rules, and its perceived favorability to plaintiffs in terms of verdicts and verdict amounts.³⁶

In the first instance, the Eastern District of Texas has adopted a specialized set of patent litigation rules that lays out stringent requirements for the submission of documents. These rules and deadlines are meant to hurry along the normally arduous road to trial.³⁷ Soon after the commencement of litigation, each party must submit preliminary documents that restrict the litigation to the listed claims and patents.³⁸ Parties must also confer to develop a “Joint Claim Construction and Prehearing Statement” setting forth the construction of the undisputed claim terms, as well as each party’s proposed construction for the disputed terms.³⁹ The enforcement of strict deadlines has considerably lowered the average time to trial in the Eastern District of Texas relative to the national averages in both bench and jury trial situations.⁴⁰ The Eastern District of Texas promises speedier resolution of patent infringement cases, thereby offering potential plaintiffs the promise of being able to save on legal fees and litigation costs. Additionally, these rules may also confer a distinct advantage to the plaintiff-patentee, who prepares in advance of

³³ See *id.*; Leychkis, *supra* note 5, at 204; Taylor, *supra* note 30, at 580–82.

³⁴ Black’s Law Dictionary (9th ed. 2009). A rocket docket is defined as: “A court or judicial district known for its speedy disposition of cases.”

³⁵ See Leychkis, *supra* note 5; Taylor, *supra* note 29; see also Alan Cohen, *From PI to IP*, IP L. & Bus., Nov. 2005 at 36; Bob Cote & Rodger Sadler, *Survival Strategies in the New IP Economy*, *Managing Intell. Prop.*, at 26, June 2006.

³⁶ See Leychkis, *supra* note 5, at 232 (“While some commentators have praised the Eastern District for the expertise of its judges, the special patent rules, and the quick adjudication of patent disputes, others have raised concerns over the abnormally high plaintiffs’ win rate and the highly attenuated connections between many of the litigants and the district.”).

³⁷ Local Rules for the Eastern District of Texas: Appendix M Patent Rules, *available at* http://www.txed.uscourts.gov/cgi-bin/view_document.cgi?document=1179&download=true [hereafter *E.D. of Tex. Rules*]; see also Andrei Iancu & Jay Chung, *Real Reasons the Eastern District of Texas Draws Patent Cases—Beyond Lore and Anecdote*, 14 *SMU Sci. & Tech. L. Rev.* 299 (2011).

³⁸ *E.D. of Tex. Rules*, *supra* note 37, at 3-1–3-6 (At the start of litigation, each party must submit a document including all “Infringement Contentions” and all “Invalidity Contentions,” which are then generally deemed to be that party’s final contentions throughout trial.)

³⁹ *Id.* at 4-3.

⁴⁰ Shahnaz Mahmud, *See Y’all Real Soon!*, *Managing Intell. Prop.*, Oct. 2006 (reporting that, on average, bench trials in the Eastern District of Texas resolve in 22.3 months compared to 37.8 months nationwide, while jury trials resolve in 21.1 months compared to 27.1 months nationwide). *But see* Tresa Baldas, *Texas IP Rocket Docket Headed for Burnout?*, *Nat’l L.J.*, Dec. 28, 2004 (commenting that the average time to trial in the Eastern District of Texas has increased as the patent dockets are flooded by new cases); see also U.S. District Courts Civil Cases Commenced, By Nature of Suit and District, *Judicial Business of the United States Courts*, *available at* <http://www.uscourts.gov/Statistics/JudicialBusiness.aspx> (a comparison of Table C-10 (or T-3 in later years) from various years showing that the median time from filing to trial in the Eastern District of Texas has been steadily increasing since 2004).

filing suit in this forum with well-prepared litigation materials, against the defendant-infringer, who must then scramble to meet the deadlines and shortened litigation schedule.⁴¹

However, the local patent rules alone do not explain all of the Eastern District of Texas's appeal. Other district courts have adopted similar rules, but have failed to attract the same amount of patent litigation.⁴² The second reason for this forum's popularity is that the Eastern District of Texas has gained a reputation for being overwhelmingly plaintiff-friendly, in both the likelihood of a verdict favoring the plaintiff, as well as the size of the damages awarded to that plaintiff.⁴³ One study has reported an average plaintiff win rate as high as 92% for this district;⁴⁴ as compared to a national average between 59%⁴⁵–68%,⁴⁶ this statistic can easily explain a would-be plaintiff's attraction to this forum.

Furthermore, plaintiffs can look forward not only to favorable verdicts, but also “Texas-sized” damages awards.⁴⁷ For example, a jury in this district awarded the jaw-dropping amount of \$1.67 billion to Centocor, Inc., a subsidiary of Johnson & Johnson, in a patent infringement suit against Abbott Laboratories—the largest patent infringement verdict ever.⁴⁸ Such verdicts are generally attributed to the plaintiff-friendly juries, because these juries reportedly display trust in the government's decisions about its property, manifested in the presumption of validity for a patent granted to a patentee-plaintiff by the United States Patent and Trademark Office.⁴⁹ Thus, a jury in the Eastern District of Texas may be relatively more likely than a jury in other districts to award large damages against corporate infringer-defendants. This high plaintiff win rate also means that even a plaintiff with a shaky case will be incentivized to file in this forum, in hopes of pressuring the defendant into favorable settlement negotiations in an effort to deter the enormous costs of litigation.⁵⁰

⁴¹ See Leychkis, *supra* note 5, at 209 (noting that defendants in the Eastern District of Texas only receive nine months to complete discovery, which somewhat biases the system toward plaintiffs).

⁴² The Western District of Pennsylvania, for example, adopted similar rules in 2005, United States District Court for the Western District of Pennsylvania, Local Patent Rules, *available online at* <http://www.pawd.uscourts.gov/Documents/Forms/LocalPatentRules.pdf>. However, the number of patent filings in that district has not significantly increased; see U.S. District Courts Civil Cases Commenced, By Nature of Suit and District, Judicial Business of the United States Courts, *supra* note 40.

⁴³ See Julie Creswell, *So Small a Town, So Many Patent Suits*, N.Y. Times, Sept. 24, 2006.

⁴⁴ Cote & Sadler, *supra* note 35, at 26. See also Creswell, *supra* note 43 (reporting a plaintiff win rate of 78% in the Eastern District of Texas according to LegalMetric data).

⁴⁵ Creswell, *supra* note 43 (reported according to LegalMetric data).

⁴⁶ See Cohen, *supra* note 35 (reported according to LegalMetric data).

⁴⁷ Creswell, *supra* note 43.

⁴⁸ See McQuillen, *supra* note 2. This verdict was later thrown out on appeal when the Federal Circuit invalidated the patent at issue. Centocor Ortho Biotech, Inc. v. Abbott Labs., 636 F.3d 1341 (Fed. Cir. 2011). However, the size of the verdict remains a testament to this forum's willingness to award damages in unprecedented amounts.

⁴⁹ See Susan Decker, *Texas District is Heaven for Patent Holders Under Siege*, Seattle Times, May 1, 2006 (quoting Judge Ward to say that “[p]roperty rights and respect for government resonate particularly strongly in East Texas”).

⁵⁰ See Creswell, *supra* note 43 (“Those odds are daunting enough to encourage many corporate defendants to settle before setting foot in Marshall”); see also Am. Intell. Prop. Law Ass’n, *Report of the Economic Survey* (2009) (Patent suits with more than \$1 million at issue generally cost between \$3 million and \$6 million to litigate, so it is not unreasonable that a defendant would prefer to settle rather than carry a case to trial and bear attorney, expert witness and other related costs.).

The aforementioned overwhelming rate of plaintiff-friendliness in the Eastern District of Texas, relative to other district courts raises an immediate red flag when compared to the lower plaintiff win rates exhibited by other districts. Even more cause for suspicion is that studies have found that, between 2002-2004, patentee-plaintiffs in other districts were usually less likely than defendants to prevail in patent infringement suits.⁵¹ Those that did prevail, usually appeared to be in strong financial shape, with financial support at least equivalent to the accused infringer-defendant.⁵² In the Eastern District of Texas, where many patentee-plaintiffs are non-practicing entities (pejoratively termed “patent trolls”) whose primary assets are patents,⁵³ it seems unlikely that plaintiffs fulfill this correlational condition. Regardless of the reasons why, there is no question that the Eastern District of Texas has prominently displayed a welcome mat to plaintiffs who desire a speedy and favorable resolution to their patent claims, and which may have led to some of this highly anomalous behavior.

Speed and plaintiff-friendliness can be reasonable justifications for seeking a forum with a fast-moving docket.⁵⁴ For these reasons, forum shopping, as the Fourth Circuit has noted, may not be inherently evil.⁵⁵ Even the Supreme Court has spoken on the issue, remarking that even without resorting to 28 U.S.C. § 1404(a),⁵⁶ a plaintiff always has the option of “shopping for a forum with the most favorable law.”⁵⁷ Thus, there is a general, if resigned, recognition that some degree of forum shopping will be inevitable in the American legal system. However, commentators have recognized a multitude of problems that may ensue from forum shopping in patent litigation.⁵⁸ Among these are issues of inefficiency.⁵⁹ If the application of patent law is inconsistent across litigation forums, the resulting uncertainty regarding the scope of patent holders’ scopes of exclusivity will divert resources away from invention of new patents to enforcement of existing patents.⁶⁰ Furthermore, as litigants battle over which forum is the most appropriate for each patent suit, inefficiencies and costs associated with venue fights will accrue.⁶¹ Finally, the greatest concern is that of fairness. This may pose a special problem in patent litigation, an area of the law that is already riddled with inaccuracy, by perpetuating and magnifying erroneous applications of the law.

⁵¹ See Paul M. Janicke & LiLan Ren, *Who Wins Patent Infringement Cases?*, 34 AIPLA Q.J. 1 (2006).

⁵² *Id.* at 26.

⁵³ Creswell, *supra* note 43.

⁵⁴ See Saurabh Vishnubhakat, *Reconceiving the Patent Rocket Docket: An Empirical Study of Infringement Litigation 1985–2000*, 11 J. Marshall Rev. Intell. Prop. L. 58, 61–70 (2011) (arguing that litigants are attracted to different rocket dockets for various reasons, including speed, efficiency and reputation for plaintiff-friendliness).

⁵⁵ *Goat v. Celotex Corp.*, 831 F.2d 508, 512 n.12 (4th Cir. 1987); see also Richard Maloy, *Forum Shopping? What’s Wrong with That?*, 24 Q.L.R. 25, 25 (2005); Stowell R. R. Kelner, Note, “*Adrift on an Uncharted Sea*”: A Survey of Section 1404(a) Transfer in the Federal System, 67 N.Y.U. L. Rev. 612, 638 (1992).

⁵⁶ 28 U.S.C. § 1404(a) authorizes a district court to transfer a case to any other district or division where it might have been brought “[f]or the convenience of the parties and witnesses, in the interest of justice.”

⁵⁷ See *Ferens v. John Deere Co.*, 494 U.S. 516, 527 (1990); see also *Keeton v. Hustler Magazine, Inc.*, 465 U.S. 770, 779 (1984) (upholding plaintiff forum shopping for a favorable statute of limitations because it was akin to forum shopping for favorable substantive or procedural rules, or jury pool).

⁵⁸ Carter G. Phillips, *Lewis F. Powell, Jr. Lecture*, 66 Wash. & Lee L. Rev. 1467, 1472 (2009) (remarking that forum shopping is “already a serious problem in patent litigation”).

⁵⁹ Moore, *supra* note 10, at 924.

⁶⁰ Moore, *supra* note 10, at 928.

⁶¹ *Id.* at 926; see also David P. Currie, *The Federal Courts and the American Law Institute: Part II*, 36 U. Chi. L. Rev. 268, 307 (1969) (writing that “[t]he theory [of venue transfer] is good, but it is practically unworkable . . . deciding where the [most convenient] forum is costs altogether too much time and money.”).

III. The Special Problem of Accuracy in Patent Litigation

Forum shopping confounds and complicates litigation by selectively creating pockets of district courts that apply the law in a nonuniform manner. This is in addition to the problem that patent suits already face of accurate application of the law. The Supreme Court has acknowledged that patent law is an extremely complex field, especially for those without training in science and technology.⁶² Most frequently, district court judges, who must manage their patent dockets and decide essential issues of patent law, usually do not have such training in science and technology.⁶³ This lack of special training in those who have been appointed to adjudicate this field may make patent law especially volatile and inaccurate.

Contributing to this impression is a widespread belief that patent litigation exhibits the highest reversal rates out of all types of civil litigation.⁶⁴ Numerous studies have detailed the high rates of reversal and unpredictable results of patent litigation holdings on appeal, with a multitude of studies citing a reversal rate between 30–50% for claim construction.⁶⁵ The Federal Circuit publishes its own statistics on the rate of U.S. District Court decision reversals, with annual averages generally ranging between 10–20%.⁶⁶ However, these rates do not seem to differentiate between patent cases and other types of cases. Furthermore, these statistics most likely include rulings on motions and other types of dispositions, but do not include partial affirmances that result in remands, and as such are not a wholly accurate reflection of the Federal Circuit's reversal rate on patent issues.⁶⁷ Thus, Chief Judge Rader of the Federal Circuit may not

⁶² *Blonder-Tongue Labs, Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 331 (1971) (“[P]atent litigation can present issues so complex that legal minds, without appropriate grounding science and technology, may have difficulty in reaching decision.”)

⁶³ James F. Holderman & Halley Guren, *The Patent Litigation Predicament in the United States*, 2007 U. Ill. J.L. Tech. & Pol’y 1, 105-106 (outlining several reasons, including a lack of scientific backgrounds or special training in patent law, why district judges struggle with patent cases as generalists of the law).

⁶⁴ See Sichelman, *supra* note 14, at 1173 (comparing the relatively high reversal rate of patent litigation (claim construction cases not resulting in summary affirmances) to the average reversal rate of 26.2% for all types of civil litigation combined (citing Corey Rayburn Yung, *Flexing Judicial Muscle: An Empirical Study of Judicial Activism in the Federal Courts*, 105 Nw. U. L. Rev. 1 (2011))).

⁶⁵ See, e.g., Gretchen Ann Bender, *Uncertainty and Unpredictability in Patent Litigation: The Time is Ripe for a Consistent Claim Construction Methodology*, 8 J. Intell. Prop. L. 175, 205 (2001) (reporting a 40% reversal rate for claim constructions); Christian A. Chu, *Empirical Analysis of the Federal Circuit’s Claim Construction Trends*, 16 Berkeley Tech. L. J. 1075, 1092 (Fall 2001) (finding a 44% reversal rate over a 28 month period from Jan 1998 to March 2000); Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 Harv. J.L. & Tech. 1 (2001) (reporting a 33% reversal rate for claim construction from 1993 to 1998); Sichelman, *supra* note 14, at 1186–88 (reporting a “relatively high 30 to 35 percent” overall reversal rate, with claim constructions being reversed at much higher rates than other issues at 40-50%); Andrew T. Zidel, *Patent Claim Construction in the Trial Courts: A Study Showing the Need for Clear Guidance From the Federal Circuit*, 33 Seton Hall L. Rev. 711, 746 (2003) (reporting a 41.5% claim construction reversal rate on appeal exclusively in 2001); *but see* Ronald J. Mann & Marian Underweiser, *A New Look at Patent Quality: Relating Patent Prosecution to Validity*, 9 J. Emp. Legal Stud. 1 (2012) (reporting a 11% reversal rate for Judge Mayer, 35% for Judge Dyk, in patent validity cases since 2003); Sichelman, *supra* note 14, at 1175 (“the average reversal rate across all issues other than claim construction is 18 percent,” suggesting that other issues of patent law are not nearly as indeterminate or inconsistently applied as claim construction).

⁶⁶ U.S. Court of Appeals for the Federal Circuit, Appeals Filed, Terminated, and Pending, *available at* <http://www.cafc.uscourts.gov/the-court/statistics.html>.

⁶⁷ Sichelman, *supra* note 14, at 1186.

have been exaggerating when he wrote that the patent “reversal rate, hovering near 50%, is the worst possible. Even a rate that was much higher would provide greater certainty.”⁶⁸

Claim construction may simply be a particularly vague and indeterminate area of patent law,⁶⁹ a problem which is further compounded by the fact that it is reviewed on a *de novo* standard on appeal.⁷⁰ Unfortunately, because claim construction defines the scope and meaning of the patent at issue, most patent cases settle after a claim construction hearing, when the parties have gained some idea of how a court will ultimately rule on the merits of the case.⁷¹ Furthermore, because claim construction is often performed at an early stage in a patent suit, errors at this early stage are amplified in later stages of the litigation proceedings, ultimately impacting future determinations of invalidity or infringement.⁷² Therefore, the high reversal rate for claim construction is still a cause for alarm, as it implies that many settlements are affected by a faulty claim construction. The high reversal rate for claim construction alone, then, may speak to a general judicial inability to properly apply and utilize patent law.

Regardless of the origins, it should be alarming to patent litigation practitioners and litigants, and especially to defendants, that patent litigation has such a reputation as being so error-prone and unpredictable. Judge Holderman of the Northern District of Illinois lamented that “[t]his unpredictability may encourage litigants . . . (1) to pursue the litigation process to the hilt through expensive discovery, pretrial proceedings, trial and appeal or (2) in the alternative, to settle early a case upon which they may have otherwise prevailed to minimize the costs of litigation.”⁷³ Chief Judge Rader of the Federal Circuit additionally remarked that the vast expenses of litigation “can force accused infringers to acquiesce to non-meritorious claims.”⁷⁴

This is a problem on several fronts. First, for the cases that actually go to trial, it is obvious that inaccurate application of the law results in the setting of inaccurate precedent that, accumulated, will have an increasingly skewing and negative effect on the entire body of patent law. This may be the case even though some cases may be reversed on appeal, because 95% of patent suits never make it to trial,⁷⁵ and instead settle, most likely at least partly under the shadow of case law precedent.⁷⁶ If this precedent is inaccurate, then a certain percentage of those

⁶⁸ *Cyber Corp.*, 138 F.3d at 1476 (Fed. Cir. 1998) (Rader, J., dissenting).

⁶⁹ Jeffrey A. Lefstin, *The Measure of the Doubt: Dissent, Indeterminacy, and Interpretation at the Federal Circuit*, 58 *Hastings L.J.* 1025, 1030 (2007) (Parenthetical Needed); David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 *Mich. L. Rev.* 223, 259–60 (2008) (pointing out that patent claim words have no clear meaning in the abstract, leading to multiple plausible claim definitions for terms); *see also* Sichelman, *supra* note 144, at 1175 (reporting that the average reversal rate across all patent issues excluding claim construction is only 18%, while the reversal rate for claim construction alone is 33%) (citing U.S. Patent Litigation Statistics Project, Univ. of Houston Law Ctr., *available at* <http://www.patstats.org>).

⁷⁰ *Cyber Corp.*, 138 F.3d at 1456.

⁷¹ Mark A. Lemley, *The Changing Meaning*, 104 *Mich. L. Rev.* 105, 106 (2005).

⁷² *Id.* at 109–16 (arguing that claim construction affects determinations of novelty, nonobviousness, enablement and written description, means-plus-function claims, and infringement).

⁷³ *Cybor*, 138 F.3d 1475–76 (Rader, J., concurring in part).

⁷⁴ Chief Judge Randall R. Rader, *The State of Patent Litigation*, 21 *Fed. Cir. B.J.* 331, 337 (2012).

⁷⁵ Jean O. Lanjouw & Mark Schankerman, *Protecting Intellectual Property Rights: Are Small Firms Handicapped?*, 47 *J.L. & Econ.* 45, 48 (2004).

⁷⁶ *See* Creswell, *supra* note 43 (pointing out that many corporate defendants choose to settle before reaching trial in the Eastern District of Texas due to the district’s track record of favoring plaintiffs).

cases will have settled because one party was given a legally-inaccurate – that is, a legally uncertain – advantage.⁷⁷ This may encourage more litigants to file suits with little or no merit.⁷⁸

To take such issues to their practical conclusions, for patent plaintiffs, winning a suit in a district exhibiting a high rate of reversal does not mean that the litigation is over; rather, it indicates that the judgment has a high likelihood of being overturned on appeal. On the other hand, a defendant may feel pressured to settle a patent case to avoid the high costs of litigation, even if the defendant's case could win on the merits, due to the great uncertainties stemming from high rates of reversal in the district court where that case has been filed. In turn, the American legal system will be confounded by excessive litigation and legal inefficiencies, as district courts attempt again and again to correctly interpret and apply patent law and are reversed again and again on appeal, despite the fact that “Intellectual Property cases” already cost 62% higher than other types of civil litigation.⁷⁹ Therefore, any patent litigator preparing to file or defend a suit in a particular forum would rightly be concerned to discover that that forum exhibits a high rate of reversal.

IV. Empirical Analysis of Patent Litigation Reversal Rates by District Court

In order to more deeply study the effect of forum shopping on the accuracy of patent litigation, an empirical study was performed to test the reversal rate of each of the busiest districts for patent litigation. A high rate of reversal presumably implies that a certain forum is applying the law incorrectly, while a low rate of reversal would imply that that forum is more accurate. First, the twenty busiest districts for patent litigation were identified, and the rate of reversal was determined for each of these district courts. Then, statistical analysis was performed on the collected data to determine whether and in which districts the rate of reversal was significantly different at the 95% confidence level from the overall rate of reversal of all courts studied.⁸⁰

A. Dataset and Methodology

In order to identify the busiest districts for patent litigation, the origin of each case in the four most recent bound volumes, volumes 93 through 96, of the United States Patent Quarterly,

⁷⁷ Although some final judgments made in the trial court will be reversed on appeal, these reversals generally do not seem to be factored into prior studies' facial calculations of plaintiff-friendliness, or other statistics such as time to trial or percentage of cases to trial. *See e.g.*, Atkinson, Marco & Turner, *supra* note 26; Lemley, *supra* note 71; Moore, *supra* note 10. Even studies in which final holdings from appeal before the Federal Circuit were taken into account did not break down this information according to the originating district court. *See Janicke & Ren, supra* note 51 (breaking down appeals results by analyzing them either as a patentee or accused-infringer win). Thus, the accuracy of each forum's trial court precedents has not been analyzed as a potentially significant factor in the forum's appeal to litigants.

⁷⁸ *See Phillips, supra* note 58, at 1472 (“incentives to litigate rather than to settle are significantly increased when there is uncertainty”).

⁷⁹ Emergy G. Lee III & Thomas E. Willging, Fed. Judicial Ctr., *Litigation Costs in Civil Cases: Multivariate Analysis* 8 (2010), available at <http://ssrn.com/abstract=1606846>.

⁸⁰ For a brief introduction to statistics, testing of two proportions and p-values, see Michael O. Finkelstein & Bruce Levin, *Statistics for Lawyers*, Second Edition, Statistics for Social Science and Public Policy, Springer-Verlag New York, Inc., 2001. Chapter 4.2 gives a brief explanation of hypothesis testing, while Chapter 5.1 explains the test that was used for this study. Note that only two-tailed tests were used for this study, as there was no hypothesis that the rate of reversal for any district was significantly different from the overall rate of reversal in one direction

was recorded, and the totals for each district were tabulated. Only cases that dealt with patents and that were decided on the merits of the patent-in-suit were included. The twenty courts with the most cases were selected for further study.

For each district court, the rate of reversal was then studied. The dataset originated from WestlawNext,⁸¹ by searching the name of the district court in the Federal Circuit database. Each case originating from that court that was decided by the Federal Circuit between March 2012 and January 2009,⁸² inclusive, was recorded, as long as it dealt with patents and was decided on the merits of the patent-in-suit.⁸³ Cases that were affirmed, including summary affirmances, were recorded as “Affirmed,” and cases that were reversed either in part or in whole were recorded as “Reversed.” Cases wherein the Federal Circuit’s decision was affirmed by the Supreme Court were included as “Affirmed,” while cases where the Federal Circuit’s decision was reversed were excluded from the dataset.⁸⁴ When all of the cases had been collected, the percentage of cases marked as reversed was then calculated for each district court.

Statistical analysis was then performed to determine whether the rate of reversal was significant for each district in comparison to the overall rate of reversal. Two types of tests of two proportions were utilized. First, the rate of reversal of each district court was tested against the overall weighted average rate of reversal of all cases studied, to determine whether that district’s rate of reversal was significantly different from the rate in all districts studied. The second type tested the rate of reversal of each district court against the rate of reversal of all courts summed, minus that court, to ensure that the first test did not give disproportionate weight to that district court in calculating the overall rate of reversal.

B. Results

The twenty busiest district courts selected are shown in Figure 1 below, with the respective number of cases in the USPQ, volumes 93–96. Notable for the large amount of appeals from that court are the Eastern District of Texas (thirteen cases), the District of Delaware (ten cases), the Central District of California (nine cases), and the Eastern District of Virginia and the Southern District of New York (eight cases each). At the other end of the spectrum, with only two appeals each, are the District of Arizona, the Eastern District of New York, the Eastern District of Pennsylvania, and the Northern District of Illinois.

⁸¹ Accessible at *next.westlaw.com*.

⁸² These dates were chosen because the research was completed in April 2012, and extended back through January 2009 in order to keep the data set limited to the most recent and relevant cases.

⁸³ Thus, for example, cases dealing with venue transfer and false marking were excluded.

⁸⁴ Cases where the Federal Circuit was reversed by the Supreme Court were excluded because of the extremely low probability that this would happen for any given patent litigation suit, and because it would make little sense for any litigator at the district court level to base his litigation strategy on having the case appealed all the way to the Supreme Court and relying on the Supreme Court reverse the Federal Circuit (regardless of whether the Federal Circuit affirms or reverses the district court). Cases affirmed by the Supreme Court, on the other hand, were included, because the litigation would conclude as if the case had only reached the Federal Circuit.

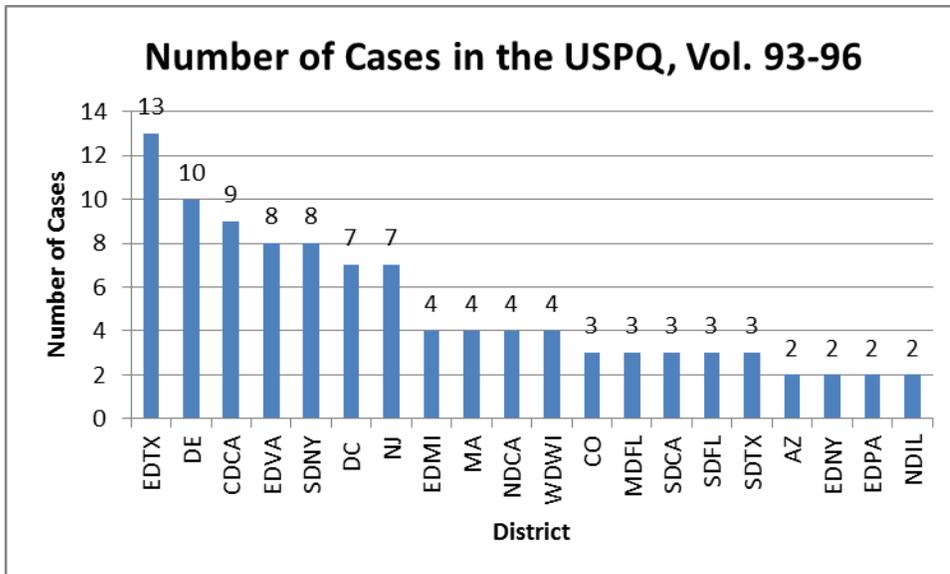


Fig. 1. Twenty busiest district courts selected for further study from the USPQ, shown with their respective number of cases from volumes 93-96 of the USPQ.

For each of the district courts, the cases tabulated from the WestlawNext search are summarized below. The Eastern District of Texas was the origin of 49 cases, the most out of all the districts studied, with the Central District of California (45 cases), the District of Delaware (43 cases) and the Northern District of California (40 cases) following closely behind. The Eastern District of Pennsylvania, the Eastern District of New York and the District of Colorado exhibited the lowest numbers of cases on appeal, at only three cases each.

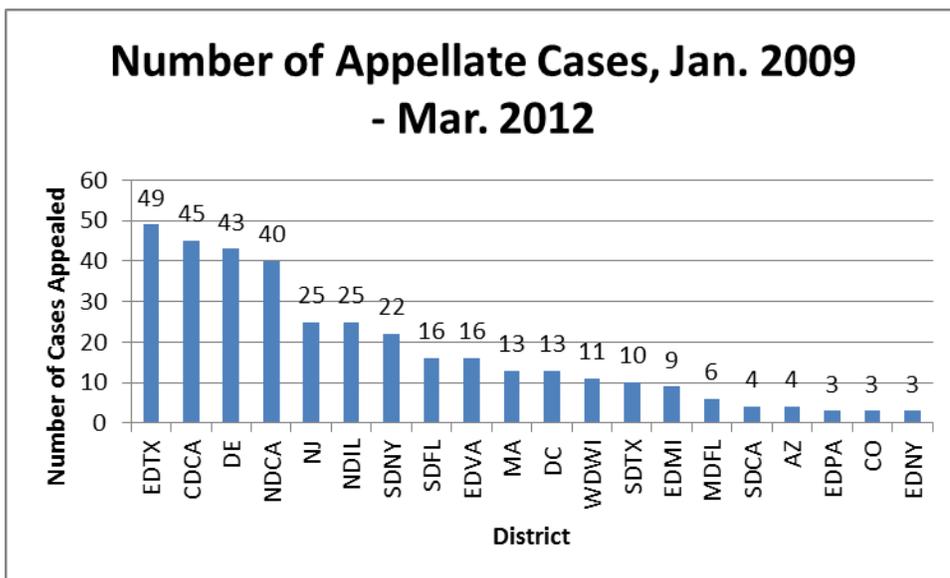


Fig. 2. Number of cases found in WestlawNext to determine rate of reversal on appeal.

The rate of reversal for each district court yielding more than ten cases on appeal based on the cases summarized in Figure 2 is shown below. The courts with the highest rate of reversal include the District of Massachusetts (61.5%), the Eastern District of Texas (55.1%), and the

District of Delaware (51.2%).⁸⁵ The court with the lowest rate of reversal was the Northern District of Illinois, at only 16%. The weighted average rate of reversal was 37.8%, while the non-weighted average was 40.8%.⁸⁶ For purposes of the creation of this chart, only cases exhibiting more than ten cases on appeal are shown, although all districts were included for purposes of calculating the average and weighted average rate of reversal on appeal.⁸⁷

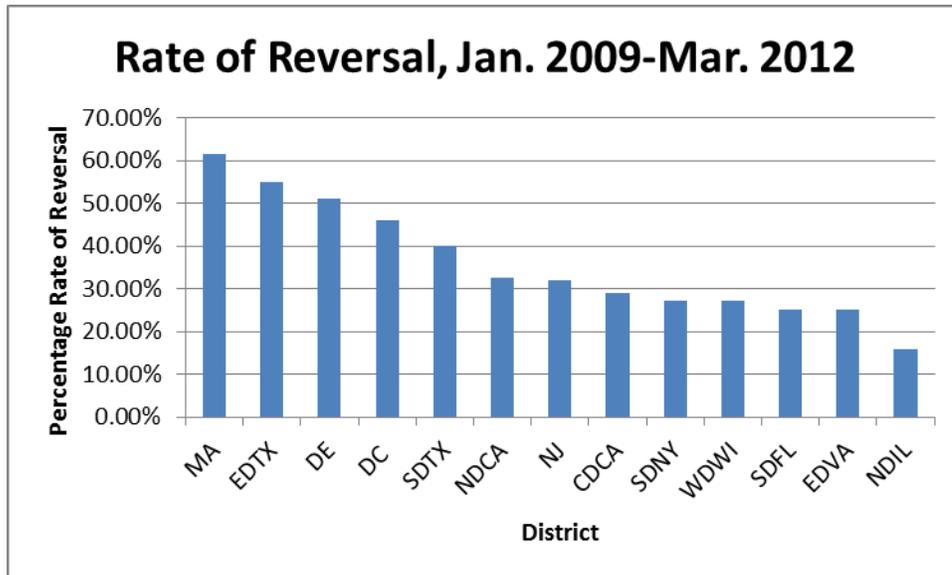


Fig. 3. Rate of reversal on appeal for each district court for cases decided between January 2009 and March 2012, showing the districts with ten or more cases.

The results of significance testing are summarized below in Figure 4. Because the results were not significantly different for testing against the overall average and testing against all districts excluding the tested district, meaning that the exclusion of a single district would not impact the test significantly, only the results for the former test are shown.

⁸⁵ Of the courts having less than ten cases on appeal, the highest rates of reversal were from the District of Colorado (100%), the Eastern District of Pennsylvania (66.67%), the Southern District of California and the Middle District of Florida (each 50%). However, the rates of reversal are most likely highly skewed due to the small sample sizes of these districts, and therefore were excluded.

⁸⁶ The weighted average was calculated by dividing the total number of cases reversed, regardless of district, over the total number of cases studied. The nonweighted average was calculated by averaging the rate of reversal by district over the total number of districts studied, and therefore gives disproportionate weight to districts with fewer cases.

⁸⁷ All districts and not only those with ten or more cases on appeal are included in calculating the average and weighted average rate of reversal in order to obtain a more accurate result due to larger sample size. However, it was believed that studying in depth only those districts with more than ten cases on appeal would lead to more accurate results, for the same reason. See Michael O. Finkelstein, *Basic Concepts of Probability and Statistics in the Law* 20 (Springer Science + Business Media LLC 2009) (“as the sample size [of the average] increases, the probability that the sample estimator will differ from the population parameter by any given amount approaches zero”).

District	P-Score v. Overall Average Rate of Reversal
<i>Eastern District of Texas</i>	<i>0.022</i>
Massachusetts	0.084
Delaware	0.096
District of Columbia	0.551
Southern District of Texas	0.887
Northern District of California	0.501
New Jersey	0.550
Central District of California	0.218
Southern District of New York	0.285
Western District of Wisconsin	0.442
Southern District of Florida	0.251
Eastern District of Virginia	0.251
<i>Northern District of Illinois</i>	<i>0.005</i>

Fig. 4. Significance testing against both weighted average rate of reversal and average of district courts not including the tested court.

As highlighted in the chart, only two district courts had a reversal rate that was significantly different from the average reversal rate.⁸⁸ The Eastern District of Texas exhibited right-tailed significance, which means that the rate of reversal was significantly not lower than the overall rate, while the Northern District of Illinois exhibited left-tailed significance, meaning that its rate of reversal was significantly not higher than the overall rate.⁸⁹ In other words, the Eastern District of Texas had a rate of reversal that was most likely significantly higher than the overall average rate of reversal, while the Northern District of Illinois had a rate that was most likely significantly lower. This result is particularly interesting, as it confirms the negative impression that has been detailed above regarding the Eastern District of Texas with all of its notoriety: despite the plaintiff-friendliness and speed with which this district resolves cases, and which has drawn litigants to it, it may well be that this district is more inaccurate at applying patent law than other districts.

As an additional method of analyzing the data, the hypothetical total number of cases that would be reversed from each district, were all cases to be appealed, was calculated. The result of this calculation will be termed the meta-reversal number. This number is important as it allows for an estimate of just how many patent cases are being adjudicated erroneously each year. District courts may have highly variable rates of appeal, which would mean that from each district, the raw rate of reversal may not be wholly indicative of exactly how many cases are

⁸⁸ There may be some confusion as to why Massachusetts does not show a significantly different rate of reversal, even though its reversal rate on appeal was higher than the Eastern District of Texas. This is because significance is calculated not only by the percentage rate, but also by how large a particular tested sample is. The Eastern District of Texas had 49 cases, while Massachusetts had only 13. Statistically speaking, 13 cases did not create a large enough sample to draw any conclusive results about significance. See Finkelstein, *supra* note 87 at 62 (“other things being equal, significance increase[s] with effective sample size”).

⁸⁹ It is easier to think of “significantly not higher” as “significantly lower” and “significantly not lower” as “significantly higher,” although this is not strictly speaking statistically correct. However, it may help the reader to understand why these results are important.

being wrongly decided from each district. Thus, for example, if the rate of reversal for District A was 10%, but a total of 1000 cases was filed in District A, the meta-reversal number would be 100 cases; however, if District B's rate of reversal was 50%, but only 100 cases were filed in District B, then District B's meta-reversal number would be 50 cases. Even though District B's rate of reversal is 50% as compared to District A's 10%, District A would still exhibit a higher number of cases that would hypothetically be reversed, if all of them were to be appealed. Thus, District A would still be greater cause for concern to litigants and attorneys seeking a legally-correct and valid judgment, as it would appear to yield a much higher raw number of incorrectly adjudicated cases.

To calculate the meta-reversal number for each district, the total number of cases filed in each district court in the time period examined by this study (August 2005 and December 2008)⁹⁰ was multiplied by the rate of reversal. The results are shown in Figure 5 below. As is evident in the chart, the meta-reversal numbers are similar to the raw rates of reversal. The Eastern District of Texas and Delaware, two of the most popular patent litigation districts, have the highest meta-reversal numbers, suggesting that these districts are adjudicating the largest number of cases incorrectly. The District of Columbia, however, despite having a high raw rate of reversal, does not contribute many incorrectly-decided cases to the overall number of cases that are hypothetically decided wrongly every year, since very few cases are filed there.

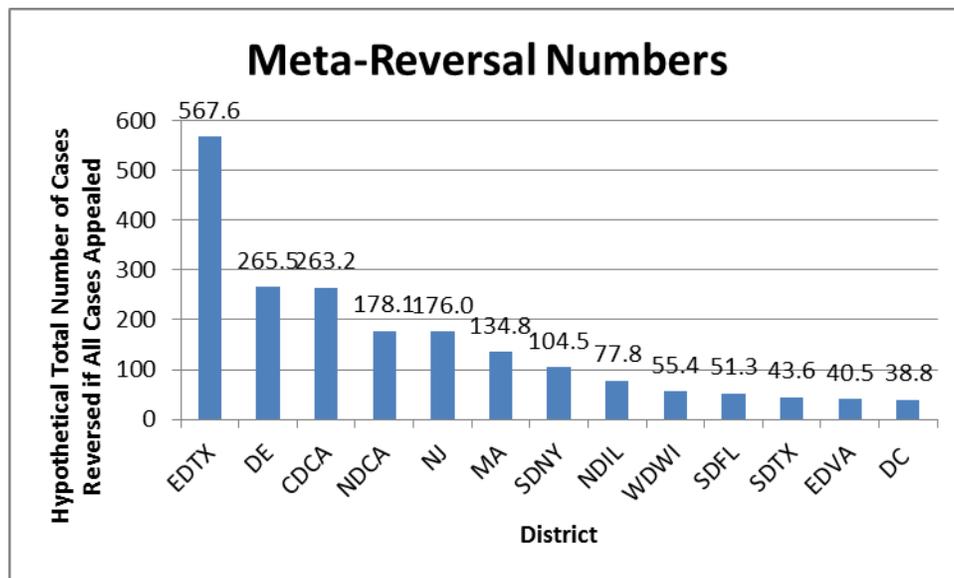


Fig. 5. Total number of cases that would be reversed from each district if all cases are appealed, showing courts with ten or more appeals.

From a combination of Figures 4 and 5, the Eastern District of Texas has both the highest rate of reversal and the highest raw number of cases that is decided incorrectly (the meta-reversal number). The District of Delaware may be another cause for concern, since both of these numbers are high as well. Both of these districts may have disproportionately large impacts on

⁹⁰ This was calculated by searching through each district court's docket on BloombergLaw's Docket Search for patent cases that had been filed between August 2005 and December 2008, where the nature of the suit was marked "Property Rights - Patent [*830]."

the nationwide total number of cases decided incorrectly, by contributing many cases to that number. Not only do these districts decide many of their cases incorrectly, but they are also the districts in which a large number of cases are litigated. Thus, they are the districts that are most negatively impacting the accuracy of patent litigation outcomes. The District of Massachusetts, despite having the highest rate of reversal in Figure 4, has a low meta-reversal, implying that it probably does not adjudicate enough cases to have a large impact on the nationwide number of cases that are hypothetically wrongly decided.

Finally, in order to test whether the rate of reversal was correlated with any of the variables that are generally associated with patent litigation forums (such as time to trial and patentee win rate), the reversal rates acquired in this study for all districts were graphed against such variables on a scatterplot, and the R-squared value for each resulting trendline was calculated.⁹¹ Variables were taken from Mark Lemley, “Where to File Your Patent Case,” and included the time to trial, percent of cases going to trial, and patentee win rate.⁹² Another variable tested was the percent of cases appealed. This was calculated by searching through each district court’s docket on BloombergLaw’s Docket Search for patent cases that had been filed between August 2005 and December 2008⁹³ and had been appealed to the Federal Circuit at least once. Additionally, the reversal rates were also graphed against the total number of cases pulled for each district court, to ensure that there was no self-selection bias (i.e. that the courts with more cases naturally had more reversals or less reversals). The graphs for this test can be found in Appendix I. The only significant result, however, is that none of the variables showed any correlation to the reversal rate.⁹⁴ Therefore, the reversal rate cannot be explained by any other variable. This suggests that the courts themselves may have special attributes which should be studied in greater detail to ascertain the specific factors leading to high or low rates of reversal, i.e., high or low rates of accuracy.

Conclusion

An empirical analysis of the reversal rate on appeal of the twenty busiest district courts produced several significant results. First, the overall reversal rate among these courts is 37.8%, which is similar to results that have been produced by previous case studies. Second, most of the district courts produce reversal rates that are not significantly different from the overall average within the top 20 districts. Only three district courts were significantly different from the average rate at a two-tailed 95% confidence level. The reversal rate of the Northern District of Illinois perhaps merits further study, as it appears to have achieved a significantly lower rate of reversal than any of the other courts, including the Southern District of New York and the Northern District of California, both of which are traditionally considered highly influential in patent law.

⁹¹ For a discussion of R-squared values, see Michael O. Finkelstein & Bruce Levin, *Statistics for Lawyers*, Second Edition, Statistics for Social Science and Public Policy, Springer-Verlag New York, Inc., 2001. Chapter 13.3 explains that R-squared values are used to determine the correlation between two variables. Generally speaking, R-squared values range between -1 and 1. The farther away from 0 the R-squared value is, the higher the correlation between the variables.

⁹² Lemley, *supra* note 29, at 8-19.

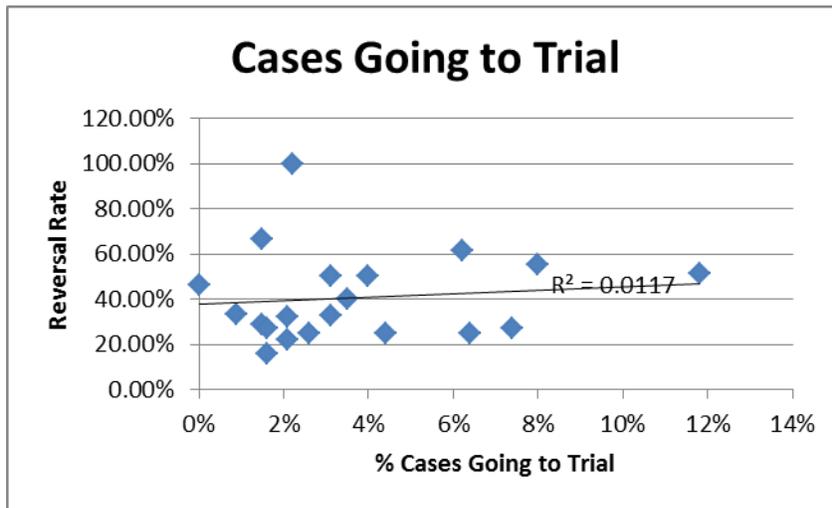
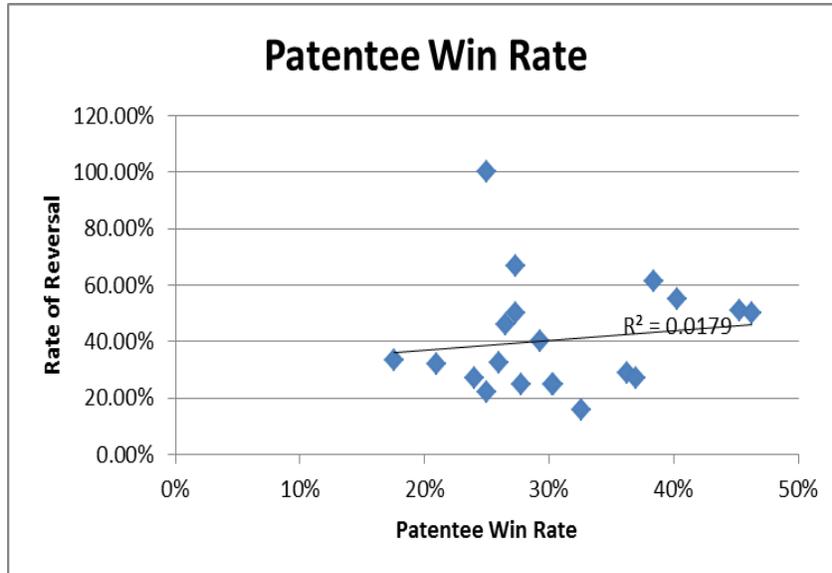
⁹³ This date range acts as a rough estimate for the dates in which cases filed at the district court level might have been decided on appeal by the Federal Circuit between January 2009 and March 2012. Patent cases were demarcated when the nature of the suit was marked “Property Rights - Patent [*830].”

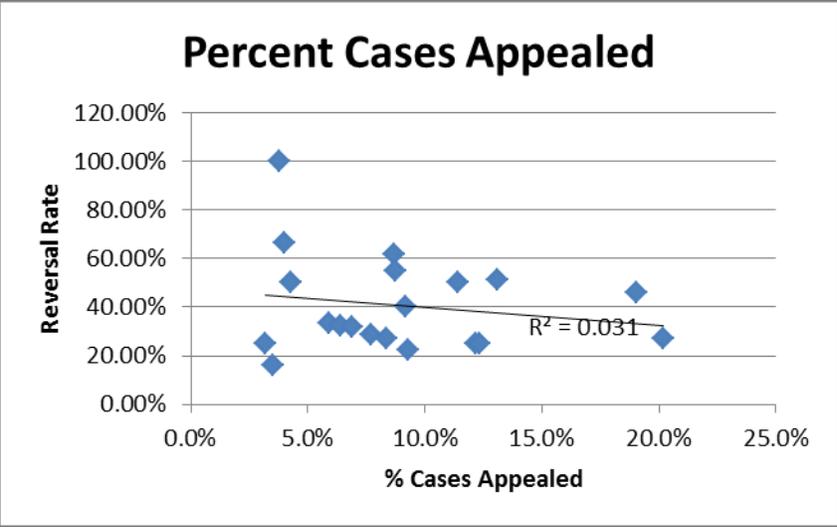
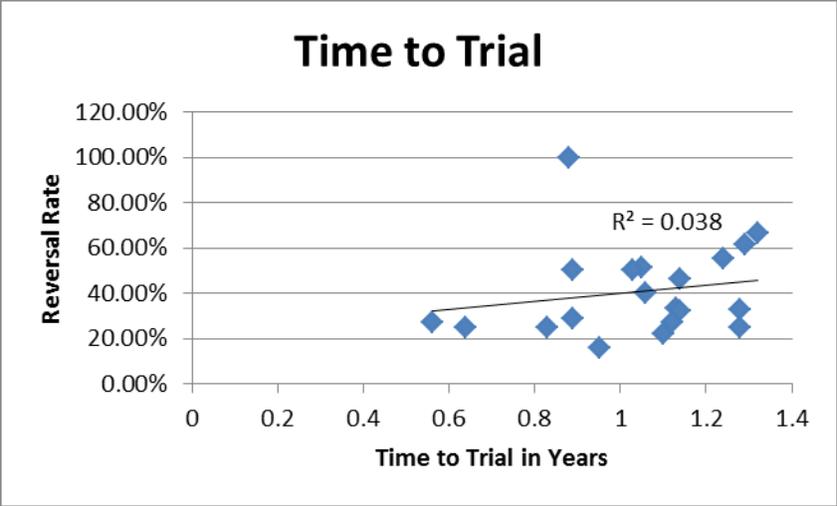
⁹⁴ The highest R-squared value obtained for any of the graphs was 0.038, which shows essentially no correlation whatsoever.

Most importantly, the results show that the Eastern District of Texas is reversed on appeal at an extremely high rate, comparatively, and is one of only two courts to exhibit a rate of reversal that is significantly not lower than the average rate, at a two-tailed significance level. Without further study, it is difficult to draw conclusions from this data. However, it means that perhaps this district deserves its notorious reputation as being overly patentee-friendly – this very patentee-friendliness, and the anomalous patterns of litigation that have been recorded from the Eastern District of Texas, may in fact be lending themselves to a greater likelihood of adjudicating cases inaccurately. If this were to be the case, then patentees would be well-advised to be cautious when filing in this circuit, as its application of patent law, despite being friendlier to plaintiffs, may ultimately be mistaken.

Finally, these reversal rates cannot be explained by any other variables traditionally associated with reasons behind patent litigation forum shopping. This suggests that they are a standalone phenomenon. In order to prevent further accumulation of needless costs and inefficiencies, it may be wise to take note of them, as they surely deserve greater in-depth study.

Appendix I: Rate of reversal on appeal graphed against other potentially explanatory variables.





Appendix II: Study Data

<i>District</i>	<i>Total Cases</i> ⁹⁵	<i>Total Appeals</i>	<i>% Cases Appealed</i>	<i>Patentee Win Rate</i> ⁹⁶	<i>Cases Going to Trial</i> ⁹⁷	<i>Time to Trial (years)</i> ⁹⁸	<i>Rate of Reversal, Jan 2009-Mar 2012</i>	<i>Number of Cases in Study</i>
EDTX	1030	90	8.7%	40.3%	8.0%	1.24	55.10%	49
CDCA	911	70	7.7%	36.3%	1.5%	0.89	28.89%	45
NJ	550	38	6.9%	21.0%	2.1%	1.14	32.00%	25
NDCA	548	35	6.4%	26.0%	3.1%	1.28	32.50%	40
DE	519	68	13.1%	45.3%	11.8%	1.05	51.16%	43
NDIL	486	17	3.5%	32.6%	1.6%	0.95	16.00%	25
SDNY	383	32	8.4%	37.0%	1.6%	1.12	27.27%	22
MA	219	19	8.7%	38.4%	6.2%	1.29	61.54%	13
SDCA	219	25	11.4%	27.3%	3.1%	1.03	50.00%	4
SDFL	205	25	12.2%	27.8%	4.4%	0.83	25.00%	16
EDMI	204	19	9.3%	25.0%	2.1%	1.10	22.22%	9
WDWI	203	41	20.2%	24.0%	7.4%	0.56	27.27%	11
MDFL	186	8	4.3%	46.3%	4.0%	0.89	50.00%	6
EDVA	162	20	12.3%	30.4%	6.4%	0.64	25.00%	16
EDPA	149	6	4.0%	27.3%	1.5%	1.32	66.67%	3
CO	132	5	3.8%	25.0%	2.2%	0.88	100.00%	3
AZ	125	4	3.2%	30.3%	2.6%	1.28	25.00%	4
EDNY	119	7	5.9%	17.6%	0.9%	1.13	33.33%	3
SDTX	109	10	9.2%	29.3%	3.5%	1.06	40.00%	10
DC	84	16	19.0%	26.5%	0%	1.14	46.15%	13

⁹⁵ “Total Cases” denotes all cases filed between July 2005 and August 2008, while “Total Appeals” denotes the number of those cases that reported at least one appeal to the Federal Circuit. The data was obtained from performing a Docket Search on Bloomberg Law, available at *bloomberglaw.com*, for all dockets that were commenced in that date range, where the nature of the suit was marked “Property Rights - Patent [*830].”

⁹⁶ Lemley, *supra* note 29, at 8-10.

⁹⁷ *Id.* at 12-14.

⁹⁸ *Id.* at 17-19.