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Colleen V. Chien Santa Clara University School of Law

Michael Risch Villanova University Charles Widger School of Law

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RECALIBRATING PATENT VENUE

By Colleen V. Chien and Michael Risch¹

Abstract

For most of patent law's 200-year plus history, the rule has been that patentholders are permitted to sue defendants only in the district they inhabit. In 1990, the Federal Circuit changed this by enlarging the scope of permissible venue to all districts with personal jurisdiction over the defendant. Since then, patentees have flocked to fewer districts, and in 2015, brought more than 40% of their cases in a single rural district with 1% of the US population, the Eastern District of Texas. Fueled in particular by concerns that non-practicing entities (NPEs), who bring the majority of cases in the Eastern District, are abusing venue, several pending Congressional bills and the TC Heartland case, potentially headed for Supreme Court review, could reinstate a more restrictive rule. We add to the policy discussion by reporting on a novel analysis of ~1,500 patent and non-patent cases filed in 2015, to explore how filing patterns might be impacted under different versions of the law. We find that about 86% of 2015 patent cases were brought outside of the defendant's home district (principal place of business), a strikingly high share. Things would change if venue were reformed, but the specifics vary. If the courts decided to restrict venue to where defendant resides or has an established place of business, an estimated 58% of 2015 cases would have had to been filed in a different venue. Plaintiffs of all types would be impacted, though NPEs would be impacted more. If venues that the plaintiff has filed in in the past few years are included (familiar districts), the shares of required refilings would drop to 53%. But if Congress decides that cases can also be filed in home districts with research or manufacturing connections to the case, about half the NPE cases in our sample would have to be refiled in an unfamiliar district, but only 14% of the operating company cases would.

Introduction

A party planning to file a lawsuit often has the option of filing its case in several different districts. Cost and convenience are likely to factor into this decision to some extent, but also important—some would say more so—is the expectation that certain forums are more likely than others to favor the plaintiff's interest, perhaps by interpreting the law in a desired fashion or by offering procedural or other advantages. The selection of a forum believed to be

¹ Colleen V. Chien is Associate Professor of Law at Santa Clara University School of Law and Michael Risch is Professor of Law at Villanova University Charles Widger School of Law. We thank Tom Cotter for his contributions to this article, Lex Machina for providing case data, Unified Patents for providing entity codings, Innography for providing patent data, Ben Singer, Ann Fort, and Robert Khose for helpful discussions and research assistants Theresa Yuan, Ben Meyer, Noah Weeks-Brittan, Reuben Bauer, Emma Stone, Campbell Yore, Max Looper, Amanda Garger, Christie Larochelle, for their help. This article expands on a solicited piece the authors wrote for the *Washington Post*, In Theory Blog, *A Patent Reform We Can All Agree On* (Nov. 20, 2015) https://www.washingtonpost.com/news/in-theory/wp/2015/11/20/why-do-patent-lawyers-like-to-file-in-texas/?utm_term=.b82e09df51ba.

favorable to one's side—usually the plaintiff's, though defendants have some opportunities to engage in the practice as well—is referred to as "forum shopping."²

Over the past decade, patent plaintiffs have increasingly chosen to file their suits in just a few districts, primarily the otherwise little-noted Eastern District of Texas. Though the District encompasses about one quarter of the State of Texas, it is largely rural and few major corporations or tech firms are headquartered there. The Eastern District's 3.5 million people³ – its largest cities are Plano (population 274,000), Beaumont (118,000), and Tyler (100,000) – comprise about 13% of the population of Texas, and about 1% of the total U.S. population. But in 2015, 44% of all patent cases were initiated there.⁴ The next closest district—which is also out of proportion to population— is Delaware, at 9% of all patent cases.

To be sure, the current state of venue law allows filings in these districts, and the applicable codes of professional ethics do not forbid lawyers from engaging in forum shopping. Thus, whether one views forum shopping as good or bad is often entwined with one's views of how the law should treat plaintiffs and defendants. However, whether forum shopping is consistent with the public interest is another matter. The sense that filing in Texas provides advantages to plaintiffs in outcomes and procedures—for better or worse—have harmed the reputation of the patent system. This conglomeration of cases has produced bizarre behavior that includes, as noted by late night comedian John Oliver, the sponsoring of an outdoor skating rink by frequent defendant Samsung in order to curry favor with local juries. While choice of forum in theory can produce a more efficient, responsive judiciary, we believe that a system that incentivizes such acts is far less defensible.

The Eastern District has been the most popular venue for patent cases in all years but two of the last ten years. But not among all plaintiffs – while 63% of patent assertion entity filings in 2015 were in the Eastern District of Texas, 6 less than 10% of filings by operating companies and individuals were. As such, there is a chance that, in contrast to other patent reforms that would sweep more broadly, such as mandatory loser-pays legislation or limits on discovery, reforms that would make forum shopping harder may represent changes that the majority of the patent system's diverse stakeholders can agree upon.⁷

² See Francesco Parisi & Erin A. O'Hara, Conflict of Laws, in 1 The New Palgrave Dictionary of Economics and the Law 387, 389. Parisi and O'Hara distinguish between bilateral, ex ante forum selection by means of forum selection clauses, and ex post forum shopping as described above, on the ground that the former, but not the latter, is likely to be efficient. Forum selection clauses are found in many contracts, particularly mass merchandise contracts, and generally are enforceable. See, e.g., Atlantic Marine Constr. Co. v. U.S. Dist. Ct., 134 S. Ct. 568, 581 (2013).

³ The United States Attorney's Office, *District Info, Eastern District of Texas* (reporting 2010 census data), https://www.justice.gov/usao-edtx/district-info.

⁴ Brian Howard, *Announcing the Patent Litigation Year in Review 2015*, LEX MACHINA (Mar. 16, 2016), https://lexmachina.com/14318/.

⁵ Show summarized by Tom Gerencer, *John Oliver Takes on Patent Trolls* MoneyNation (May 4, 2015) *available at* http://moneynation.com/john-oliver-takes-patent-trolls/.

⁶ Unified Patents, *Unified Patents 2015 Patent Dispute Report* (Mar. 2015), http://www.unifiedpatents.com/news/2016/5/30/2015-patent-dispute-report.

⁷ We realize, of course, that patent plaintiffs may not be so happy with such changes, though if given a choice of sweeping reform and venue reform, they might well pick venue.

The easiest way to reduce forum shopping would be to unwind the conditions that enable it: a multitude of potential forums from which litigants may choose and the ability of district courts to differentiate themselves from one another in terms of potential benefits they can offer. Because it is very difficult to mandate how judges run their courtrooms, limiting the choice of forum may be the most expedient solution.

In fact, plaintiffs' current, expansive choice of venue has been the exception more than it has been the rule during patent law's 200-year plus history, during which venue has been restricted to districts inhabited by the defendant, namely its state of incorporation. But in 1990, the Federal Circuit, in response to a change in the general venue law enacted by Congress in 1988, ruled that Congress intended to make the patent rule more permissive and allow disputes to be filed in any district in which there was personal jurisdiction over the defendant. Since corporations tend to sell products throughout the United States, *VE Holding* basically permits patent owners to sue them for infringement anywhere.⁹

Scholars, advocates, late-night comedians, and at least one presidential hopeful¹⁰ have noted the concentration of cases in Texas and contemplated how the rules should be reformed. Momentum is building behind proposed changes. One defendant's challenge—from Delaware and not Texas, interestingly—is now winding its way through the appeals process and may present the Supreme Court with the opportunity to reinstate a more restrictive view of patent venue. Congress is now contemplating a bill that would recalibrate the law somewhere in between these two points, allowing cases to be brought in districts of the plaintiff and the defendant with a connection to the accused infringement.

While most academic commentary to date has focused on explaining filing patterns and suggesting ways to curb forum shopping, our paper takes a different approach. Rather than debate the theory or merits of various versions of venue reform in the abstract, we evaluate and, where possible, empirically address several issues that we believe should be front and center in the minds of those who are considering or advocating for venue reform. We make three distinctive contributions.

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⁸ Or, in Matthew Sag's pithy formulation, "Advantage + Choice = Forum Shopping." Matthew Sag, *IP Litigation in United States District Courts: 1994 to 2014* (Jan. 14, 2016), 101 Iowa L. Rev. 1065 (2016).

⁹ Beverly Hills Fan Co. v. Royal Sovereign Corp., 21 F. 3d 1558, 1565 (Fed. Cir. 1994) (shipping product to distribution channels in state conferred jurisdiction). For further discussion, see, e.g., Jeanne C. Fromer, *Patentography* (April 14, 2010), 85 NYU L. Rev. 1444 (2010). As of this writing, the Federal Circuit is being asked to reconsider *VE Holding* on several grounds; for discussion, see Dennis Crouch, *Choosing a District for Patent Infringement Filing and Giving Meaning to Section 1400(b)*, Patently-O Blog (Oct. 27, 2015), http://patentlyo.com/patent/2015/10/choosing-district-infringement.html; Dennis Crouch, *Where Does a Defendant "Reside" for Jurisdictional Purposes in Patent Infringement Cases*, Patently-O Blog (Oct. 26, 2015), http://patentlyo.com/patent/2015/10/defendant-jurisdictional-infringement.html.

¹⁰ Hillary Clinton's Initiative on Technology & Innovation,

https://www.hillaryclinton.com/briefing/factsheets/2016/06/27/hillary-clintons-initiative-on-technology-innovation/.

¹¹ In re: TC Heartland LLC, No. 16-105 (Fed. Cir. 2016).

¹² Discussed Part I, infra.

First, while most of the attention has focused primarily on the recent concentration of cases in the Eastern District, our paper attempts to situate current trends within a longer history, not only of forum shopping in patent law, but also other areas of law. To do so, we review the historical evolution of patent venue from a legal and descriptive perspective, and the economic and institutional factors that have contributed to forum shopping not only in the Eastern District but favored courts in other areas of law, like the Delaware bankruptcy court. We also perform an analysis of venue trends in other areas of law based on considering a small sample of about 500 non-patent cases, to understand the extent to which patent forum shopping is unique or common. Finally, we also note that a number of recent changes have reduced both the absolute and relative number of patent case filings in the Eastern District, and consider whether forum shopping may also naturally be on the wane.

Second, we evaluate the static effects of a rule change. Taking a sample of 1,000 randomly chosen patent cases from 2015, we assess whether or not they could have been brought in their chosen venues under proposed versions of the law. We combine courts records with information about the parties themselves – their entity type, whether defendants were publicly traded companies and the primary industries they were in, and the past filing patterns of plaintiffs. If venue were restricted by the courts through a more limited reading of existing law, or by Congress legislating a new rule, what share of cases, which cases, and what industries would be impacted? While the problem of forum shopping may appear targeted, and concentrated in the Eastern District we assess the proposed solutions for the breadth of their impact on various types of plaintiffs and defendants.

Finally, though we cannot predict the future, we attempt to consider the dynamic effects of a rule change. Many companies are headquartered in Delaware. Would a new rule simply shift, rather than resolve, the concentration of patent cases? To address this question we look not only at where plaintiffs filed the 1,000 2015 cases in our sample, but also where they might file these same cases, in view of not only new rules but also their own past filing patterns and the patterns of their peers.

Our empirical analysis considers about 1,500 patent and non-patent cases filed in 2015, and explores how filing patterns might be impacted under different versions of the law. We find that about 86% of cases were brought in districts outside of the home (principal place of business) districts of the defendants in 2015. The comparable number among other causes of action, based on our analysis, varied widely, with one defendant sued away from its home district 62% of the time, and another sued in distant locales 100% of the time. If the courts decided to construe the statutory language strictly, and restrict venue to where defendant resides or has an established place of business, we estimate that about 58% of the 2015 cases in our sample would have had to been filed in a different venue. Plaintiffs of all types would be impacted with NPEs having to move about eight percentage points more often. If venues that the plaintiff has filed in in the past few years are included (familiar districts), the shares of required refilings would drop to 53%. If plaintiff's home districts were also allowed, something Congress is considering primarily for the benefit of operating companies, universities, and failed startups, then 47% of NPE cases would have to move, while only 14% of operating company cases would have to be refiled in an unfamiliar district.

The paper proceeds as follows. Part I explores the legal and descriptive history of patent venue, and the enabling conditions and motivations for forum shopping through the present. It also reviews the potential future of venue through the lens of current Congressional and court proposals. Part II describes the methodology and assumptions we used to address the three issues discussed above – the context, the static effects, and the dynamic effects of the proposed changes – through rigorous empirical analysis. Part III presents and describes our results and their implications for venue reform efforts. Part IV concludes.

PART I

The question of where patentees can properly bring their cases has received an inordinate amount of recent attention in light of the high concentration of patent filings in just a handful of venues. But for much of patent law's history, it has been well-settled that special rules limit where patent lawsuits can be brought. In this Part, we discuss the evolution of patent venue law, and related developments in general venue law, as well as the combination of favorable law, favorable procedures, and favorable economics that have contributed to the current state of affairs. Next, we consider the patterns of filing that have followed, and previous developments intended to limit forum shopping in patent cases. Finally we discuss proposals for reforming patent venue currently under consideration.

How We Got Here

Permissive Venue in Patent Law

In order to bring a lawsuit, a plaintiff must establish proper venue and personal jurisdiction over a defendant. General rules, covering all civil suits, and rules specific to patent law, as well as rules that have sanctioned restrictive and permissive venue have governed patent cases over their long history. For the first hundred years or so, patent venue was governed by a general statute. Section 11 of the Judiciary Act of 1789 allowed suits in civil cases—including patent cases—only where the defendant inhabited or could be found. In the early 19th century, most defendants were individuals and could be found only where they inhabited. As a result, when Thomas Blanchard sought to enforce his patents over a time-saving turning lathe that permitted wood to be shaped into irregular forms such as gun stocks and tool handles, he had to go to the venues of the woodworkers he accused of infringement, in Massachusetts, New Hampshire, Pennsylvania, and other locations. As a result is patent to be shaped into irregular forms such as gun stocks and tool handles, he had to go to the venues of the woodworkers he accused of infringement, in

This remained the rule of the land even after 1875, when diversity and removal jurisdiction was added. But the 1875 Act expanded jurisdiction of federal courts, whereas state

¹³ Judiciary Act of 1789 (ch. 20, 1 Stat. 73), § 11 ("And no civil suit shall be brought before either of said courts against an inhabitant of the United States, by any original process in any other district than that whereof he is an inhabitant, or in which he shall be found at the time of serving the writ. . . ."); Chaffee v. Hayward, 61 US 208, 212 (1858).

¹⁴ Christopher Beauchamp, *The First Patent Litigation Explosion*, 125 Yale L.J. 848, 860-61 n. 41-48 (2015).

courts had previously heard many cases when both parties were in the same state. ¹⁵ Following this rule change, suits could still be filed wherever defendants inhabited or could be found. ¹⁶ While the rule was the same, the practical effect was broader than the habitation requirement because defendants were "found" essentially anywhere there was a business presence. ¹⁷ This development coincided with the rise of the patent "sharks," patentholders that sued farmers for their use of farming implements such as sliding gates, barbed fences and drywall. ¹⁸ The ability to consolidate multiple suits in a single venue led Congressman Nathaniel C. Deering of lowa to report in 1879 that:

"a single attorney is preparing papers for more than one thousand cases; and that the attorneys for the patentee of the iron barbs for wire-fences are preparing papers for upward of four thousand cases. . . our State. Hundreds, if not thousands of the unwary and unsuspecting farmers in my district will no doubt be compelled, by threats and intimidation, either to yield to the extortionate demands of these plunderers, and pay \$10 or \$20 each . . . or be dragged one hundred and fifty miles away from their homes, at great inconvenience and expense." ¹⁹

Note that these individuals were being sued in their home districts, and that the long distances were due to rural farm locations but consider if they had all been sued 2,000 or more miles from their homes. Even during this time, where a patent case could be brought had an influence on its outcome.

This early period of permissive venue came to an end about a decade after it started when, in 1887²⁰ and 1888,²¹ Congress passed a revision that generally narrowed venue, but in a complex way. Under the new rule, if a case was brought under what was then federal question jurisdiction, then the suit could only be brought where the defendant inhabited. But in diversity cases (e.g. a case worth more than \$500 but less than \$2,000 with parties in different states), plaintiffs could sue either where they resided or where the defendant resided. But in either case, defendants could no longer be sued where they were found, only where they inhabited. However, for the first ten years of the new statute, courts were confused about the law's

¹⁵ Jurisdiction & Removal Act of Act of March 3, 1875, c. 137, 18 Stat. 470, § 1; Federal Judiciary Center, Landmark Judicial Legislation: The Jurisdiction and Removal Act of 1875,

http://www.fjc.gov/history/home.nsf/page/landmark_11.html.

¹⁶ Federal Judiciary Center, *Id.* ("[T]he act of 1875 attracted new types of litigation that swelled the caseload of the federal courts and challenged the existing organization of the judiciary.").

¹⁷ Ex parte Schollenberger, 96 US 369, 376 (1877) ("They have in express terms, in consideration of a grant of the privilege of doing business within the State, agreed that they may be sued there.").

¹⁸ Earl W. Hayter, *The Patent System and Agrarian Discontent, 1875-1888*, 34 Miss. Valley Hist. Rev. 59, 73 (1947). ¹⁹ *Id.* at 68.

²⁰ Act of March 3, 1887, c. 373, 24 Stat. 552, § 1

²¹ Act of August 13, 1888, c. 866, 25 Stat. 433 § 1 ("[N]o civil suit shall be brought . . . against any person . . . in any other district than that whereof he is an inhabitant, but where the jurisdiction is founded only on the fact that the action is between citizens of different States, suit shall be brought only in the district of the residence of either the plaintiff or the defendant.").

applicability to patent cases. Eventually, the Supreme Court determined that, because district court jurisdiction to hear patent cases arose under a different statute, the general venue provision did not apply; venue in patent cases was permissible essentially anywhere.²²

In response to this trend, in 1897, Congress clarified its intent that patent defendants should be sued only where they inhabited or where they had a place of business and committed infringing acts.²³ This patent venue rule was narrower than the free-for-all, but still broader than the inhabitant rule applicable to other cases. In one sense, it was a return to venue where the defendant might be found, with the added proviso that the infringement also take place in the selected district. In fact, the statute explicitly provided for service at other business locations, just as the "found" jurisdiction did.²⁴

Meanwhile, Congress continued to tinker with the general venue rules, enacting a provision that allowed broader venue in the case of two defendants in civil cases; in fact, that rule pre-dated the 1897 patent venue rule. ²⁵ The Supreme Court confirmed in the 1942 *Stonite* case that these general venue rules did not undermine application of the special, narrower venue rules to patent cases, in large part because the recodification of the general rules did not trump the special rule. ²⁶

But additional changes introduced additional ambiguity. In 1948, the Judicial Code was recodified to its current form, which specifies in 28 U.S.C. § 1400(b), rather succinctly, that patent venue is proper "in the judicial district where the defendant *resides* (rather than inhabits), or where the defendant has committed acts of infringement and has a regular and established place of business." A related provision of the law, 28 U.S.C. § 1391(c), was revised to state that a corporate defendant *resides* anywhere it is doing business, essentially restoring the broader concept of venue being proper anywhere a corporate defendant could be found.²⁷

The two changes implied a potential new meaning – that "reside" no longer meant "inhabit," or place of incorporation, for patent venue. This new ambiguity brought another Supreme Court case about a decade later, considering again whether the new general rule modified the special patent rule. The very small difference between § 1400(b) and § 1391(c) made a big difference to a West Virginia glass company called Fourco that was sued in New

²² In re Hohorst, 150 US 653, 663-64 (1893). *See also* Stonite Products Co. v. Melvin Lloyd Co., 315 US 561, 564 n.3 (1942).

²³ Act of March 3, 1897, c. 395, 29 Stat. 695 (". . .the district of which the defendant is an inhabitant, or in any district in which the defendant, whether a person, partnership, or corporation, shall have committed acts of infringement and have a regular and established place of business.").

²⁴ Id.

²⁵ Act of May 4, 1858, c. 27, 11 Stat. 272; R.S. § 740; Judicial Code § 52.

²⁶ Stonite Products, 315 US at 567 ("Even assuming that R.S. § 740 covered patent litigation prior to the Act of 1897, we do not think that its application survived that act, which was intended to define the exact limits of venue in patent infringement suits.").

²⁷ Note, Federal Venue and the Corporate Plaintiff: Judicial Code Section 1391 (c), 28 Ind. L.J. 256 (1953).

York.²⁸ The company had a place of business in New York, and thus was doing business there, but was not committing infringing acts there.²⁹ In other words, though Fourco could be found in New York, it did not inhabit the state, making the suit proper only if § 1391(c) had redefined the contours of patent venue as set forth in the § 1400(b).

In its 1957 decision, the Supreme Court determined that § 1391(c) was a general statute that had not actually changed the patent landscape or the vision of limited patent venue set forth by the Court in the *Stonite* case. ³⁰ Because § 1400(b) is a specific prior statute, nothing indicated that Congress intended to change the meaning of § 1400(b), the Court reasoned. The term "resides" in § 1400(b) continued to mean "inhabit" as it always had.

Ironically, despite fixed language, the *relative* breadth of patent venue changed with Congress's whims in other parts of the statute. When first passed as a response to unfettered venue choices, for the period from 1897 until § 1391(c) was passed in 1948, the patent rule provided for relatively broad venue compared to nonpatent cases, which limited filings to place of habitation. But as Congress returned to unfettered venue choices for nonpatent cases, patent venue began to look somewhat narrower.

It is within this context that the current dispute over patent venue appears in many ways to be history repeating itself. Although 28 U.S.C. § 1400(b) has remained unchanged since 1948, the Congressional provisions governing general venue have undergone two additional revisions. In 1988, a new clause was added to 28 U.S.C. § 1391(c)'s definition of residence, resulting in the following language: "For purposes of venue *under this chapter*, a defendant that is a corporation shall be deemed to reside in any judicial district in which it is subject to personal jurisdiction at the time the action is commenced." (emphasis added). These three words, the Federal Circuit held in its 1990 *VE Holding* case, triggered a change in how § 1400(b) should be interpreted because the patent venue rule was "under this chapter." As a result, patentholders could sue alleged infringers in "any district where there would be personal jurisdiction over the corporate defendant." Thus was born the current era of permissive venue for patents, joining other civil cases.

Not content to leave venue alone, in 2011, Congress amended § 1391 again. There were two primary changes. First, § 1391(a) now says the section will apply to venue in all civil actions, "[e]xcept as otherwise provided by law." Second, instead of "under this chapter," § 1391(c) now reads, "For all venue purposes."

The courts have not adjusted their interpretation of patent venue law, but should they? Whether the general venue statute should trump patent venue rules has been before the court

²⁸ Fourco Glass Co. v. Transmirra Prods. Corp., 353 US 222, 223 (1957).

²⁹ *Id.* at 223.

³⁰ *Id.* at 228-29.

³¹ VE Holding Corp v Johnson Gas Appliance Co., 917 F.2d 1574, 1583 (Fed Cir 1990).

several times since 1887, and it is one of the questions that was presented to the Federal Circuit in the *TC Heartland* case, described in further detail below.

Filing Trends

Though *VE Holding* expanded venue in patent cases, permissive venue is not unique to patent law. Indeed, as Clermont and Eisenberg have observed, "the American way is to provide plaintiffs with a wide choice of venues for suit." Scholars have studied, critiqued, and defended strategic forum choices in several areas of law, including mass torts and bankruptcy in modern times; there is even evidence from the 1600s that suggests that English judges made jurisdictional, procedural, and doctrinal choices to attract plaintiffs. A comprehensive study of transfer motions in the 1980s and 1990s found that cases that were successfully transferred to the defendant's preferred venue were much less likely to result in a victory for the plaintiff.

But while permissive venue is not unique to patent law, among federal causes of action – besides bankruptcy³⁵ – forum shopping in patents has attracted the most attention.³⁶ In 2001, Professor Kimberly Moore (now a judge on the Federal Circuit) published an empirical study showing that the five most popular districts at the time for patent litigation (the Central and Northern Districts of California, the Northern District of Illinois, the Southern District of New York, and the District of Massachusetts) collectively accounted for only 15% of all civil case

³² Kevin. M. Clermont & Theodore Eisenberg, *Exorcising the Evil of Forum-Shopping*, 80 Cornell L. Rev. 1507 (1995). As noted in the Introduction, though, it was not always the American way.

³³ Daniel Klerman, *Jurisdictional Competition and the Evolution of the Common Law*, 74 U. CHI. L. REV. 1179 (2007).

³⁴ Clermont & Eisenberg, *supra* note ____, at 1507 (finding, based on a study of 2.8 million terminations of federal civil cases between 1979 and 1991, a disparity in win rates among transferred and nontransferred cases of 29% versus 58%, respectively).

³⁵ Relevant articles include: Barry E. Adler & Henry N. Butler, *On the "Delawarization of Bankruptcy" Debate*, 52 Emory L.J. 1309, 1316–17 (2003) (questioning whether the observed number of bankruptcies filed in Delaware differs that greatly from a random walk),; Lynn M. LoPucki & William C. Whitford, *Venue Choice and Forum Shopping in the Bankruptcy Reorganization of Large, Publicly Held Companies*, 1991 Wis. L. Rev. 11 (finding that a substantial number of bankruptcy cases were filed in districts where the company had little or no physical presence); Theodore Eisenberg & Lynn M. LoPucki, *Shopping for Judges: An Empirical Analysis of Venue Choice in Large Chapter 11 Reorganizations*, 84 Cornell L. Rev. 967 (1999) (documenting and explaining the abrupt shift in 1990 when forum shoppers stopped filing in New York and started filing in Delaware); Samir D. Parikh, *Modern Forum Shopping in Bankruptcy*, 46 Conn. L. Rev. 159 (2013) (finding 69% of the largest bankruptcy cases filed between 2007 and 2012 were "forum shopped"). *See also* Kenneth Ayotte & David A. Skeel, Jr., *An Efficiency-Based Explanation for Current Corporate Reorganization Practice*, 73 U. Chi. L. Rev. 425, 432–33 (2006) (acknowledging the high number of filings in Delaware while critiquing Prof. LoPucki's explanations for it).

³⁶ A search of forum shopping commentary in the context of copyright, trademark, antitrust, and civil RICO literature revealed only one empirical study, which found out of hometown forum shopping substantially less prevalent in copyright and trademark litigation than in patent litigation. *See* Matthew Sag, *IP Litigation in U.S. District Courts: 1994 to 2014*, 101 lowa L. Rev. 1065, 1095–97 (2016). Outside of the federal courts, commentators have also considered forum shopping in the context of mass tort cases. *See,e.g.,* Craig S. Hilliard and Martin P. Schrama, *A Case Study on the Importance of Forum Selection in Mass Tort Litigation*, 200 N.J.L.J. 382 (May 17, 2010). ³⁷ *See* Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. Rev. 889, 903–04 (2001).

terminations but 29% of patent case terminations from 1995-99.³⁷ Moreover, although the clusters of filings within certain districts appeared to correlate with their proximity to large numbers of patent-seeking companies and their headquarters, others popular districts including the District of Delaware and the Eastern District of Virginia did not.³⁸ Rather, filings appeared to correlate (albeit not uniformly) with procedural advantages such as time to trial and with differential win rates.³⁹

Over the past ten or so years, however, while the District of Delaware has grown to be the second most popular forum for patent litigation (Virginia's popularity having declined for a variety of reasons), 40 patent suits increasingly have clustered in the Eastern District of Texas. Table 1 below charts the raw numbers of patent actions filed in the Eastern District, beginning in 1999 (when there were only 14 actions) through the first half of 2016, when there were 767 patent filings.

Table 1: Patent Cases Filed in the Eastern District of Texas ⁴¹								
1999	2000	2001	2002	2003	2004	2005	2006	2007
14	23	33	32	55	108	159	196	358
2008	2009	2010	2011	2012	2013	2014	2015	1st Half 2016
289	235	283	414	1247	1494	1425	2540	767

Of greater interest, however, is Table 2, which, based on data from Lex Machina and various academic studies, lists the patent caseload of the leading federal district courts by percentages. In 2015, approximately 44% of all U.S. patent infringement actions were filed in the

³⁹ See Moore, supra note 6, at 904–23.

³⁷ See Kimberly A. Moore, Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?, 79 N.C. L. Rev. 889, 903-04 (2001).

³⁸ Delaware is a popular state for incorporation, but not many of the corporations incorporated in Delaware actually have their principal place of business there.³⁹ See Moore, supra note 6, at 904–23.

⁴⁰ See Daniel Klerman & Greg Reilly, Forum Selling, 89 S. Cal. L. Rev. 241, 280-81 (2016) (discussing factors that contributed to Delaware and Virginia's popularity, and the more recent adoption of measures intended to discourage overuse of Virginia as a forum, leading to its decline).

⁴¹ Sources: for data from 1999-2006, Yan Leychkis, 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. 1 (2007); for data from 2007-13, Daniel Klerman & Greg Reilly, Forum Selling, 89 S. Cal. L. Rev. 241, 249 tbl. 1 (2016); for 2014, Brian Howard, 2014 Patent Litigation Year in Review at 5, Lex Machina, March 26, 2015, available at http://pages.lexmachina.com/rs/lexmachina/images/2014%20Patent%20Litigation%20Report.pdf; for 2015, Brian Howard, 2015 First Half Patent Case Filing Trends, Lex Machina, July 14, 2015, available at https://lexmachina.com/2015-first-half-patent-case-filing-trends/. Note that jump from 2011 to 2012 is explained in large part by joinder rule changes in the AIA, explained in the text at note ___.

Eastern District of Texas.⁴² The Eastern District courts also decide the largest proportion of NPE patent cases.⁴³ In 2016, this share dropped to 30% in the first quarter⁴⁴ and 37% in the second quarter.⁴⁵

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		lable	2: 10p 1	0 Most	Popuia	r Distin	cts 101 1	atent C	ases, 20	07 - 2010	(% 01 1	l Otal Ca	ises)			
District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 1 st Half	2007- First Half 2016
Eastern District of Texas	1%	2%	4%	6%	10%	13%	11%	9%	10%	12%	23%	24%	28%	44%	34%	20%
District of Delaware	5%	5%	6%	5%	5%	6%	6%	9%	9%	14%	18%	22%	19%	9%	9%	12%
Central District of California	10%	16%	11%	9%	10%	12%	8%	11%	8%	9%	9%	7%	7%	5%	7%	8%
Northern District of California	8%	7%	7%	7%	6%	5%	6%	6%	6%	6%	5%	4%	5%	4%	5%	5%
Northern District of Illinois	7%	6%	7%	5%	5%	5%	6%	5%	6%	6%	4%	4%	3%	3%	6%	5%
District of New Jersey	4%	5%	4%	4%	6%	7%	6%	6%	6%	5%	3%	2%	6%	5%	5%	5%
Southern District of New York	4%	5%	6%	5%	4%	4%	5%	6%	4%	4%	3%	2%	2%	3%	3%	4%
Southern District of California	3%	2%	2%	2%	2%	2%	3%	3%	2%	2%	3%	4%	2%	1%	3%	2%
Southern District of Florida	*	*	*	*	*	2%	1%	2%	2%	2%	2%	3%	1%	2%	4%	2%
District of Massachusetts	*	*	*	*	*	2%	2%	2%	3%	2%	1%	2%	1%	1%	1%	2%
National Total	2527	2744	2772	2523	2600	2775	2573	2547	2769	3574	5454	6115	5077	5830	2240	38,954

⁴² For the third quarter of 2015, Lex Machina reports a drop in filings nationally, to 1,119, of which only 435 were filed in the Eastern District. Through the first three quarters of 2015, then, the district's share of patent cases comes to 1822/4255, just under 43%. *See* Brian Howard, *Q3 2015 IP Filing Trends*, Lex Machina, Oct. 9, 2015, https://lexmachina.com/q3-2015-ip-filing-trends/.

⁴³ John R. Allison et al., *How Often Do Non-Practicing Entities Win Patent Suits?*, Berkeley Tech. L.J. (forthcoming 2016).

⁴⁴ Brian Howard, *2016 First Quarter IP Litigation Trends*, Lex Machina, April 13, 2016, https://lexmachina.com/2016-first-quarter-ip-litigation-trends/

⁴⁵ Brian Howard, *2016 Second Quarter IP Litigation Trends*, Lex Machina, July 14, 2016, https://lexmachina.com/2016-second-quarter-ip-litigation-trends/

It is important to acknowledge that some of the growth in the share of cases in the Eastern District was due to the joinder rule changes in the AIA, which required that cases against separate defendants be brought in separate actions rather than a single consolidated action with as many as 100 defendants. Because the Eastern District of Texas is favored by NPEs, and because NPEs tend to sue more defendants at once, 46 the jump from 2011 to 2012 reflects expected growth in the Eastern District, both in absolute numbers and in comparison to other districts. This does not downplay the significance of the Eastern District of Texas after 2012; it merely shows that it had been busy for a few years before that.⁴⁷

The concentration of cases does not stop at the district court level. The Eastern District's longstanding practice is to assign judges to hear cases based on the *division* within the district in which the action is filed, rather than randomly assigning a judge as is more typical. ⁴⁸ Under the court's most recent General Order, for example, Chief Judge Clark is assigned 100% of the patent actions filed in the Beaumont Division and 50% in the Sherman Division, while Judge Gilstrap is assigned 80% of all civil litigation filed in Marshall and 30% of the patent cases filed in Tyler; all of the remaining Tyler patent matters are assigned to Judge Schroeder. ⁴⁹ This policy explains how some repeat litigants manage to have all of their cases assigned to the same judge. ⁵⁰ It also explains how one single judge, Judge Gilstrap, wound up being assigned *982* patent actions in 2014—just under *one-fifth* of all the patent infringement actions filed in the entire United States that year. ⁵¹ Presumably, patentees might like the reliability of knowing the presiding judge, for good or bad. At worst, to the extent that plaintiffs believe a certain judge will be favorable, this rule would encourage fine-grained selection of forum. At best, overloading a few judges is more likely to cause delays from overburden.

The long-standing tendency of patent plaintiffs to pick favorable venues, though often overlooked, raises an important but largely ignored first order question: are there real benefits to the Eastern District of Texas? Are those advantages enduring? Or might this district, like other previously popular patent districts, decline on its own over time? In the following

⁴⁶ Michael Risch, *A Generation of Patent Litigation*, 52 San Diego L. Rev. 67, 82 (2015). *See generally* Christopher Anthony Cotropia et al., *Unpacking Patent Assertion Entities (PAEs)*, 99 Minn. L. Rev. 649 (2014).

⁴⁷ Sag, *supra* note ___(5), at ____. ⁴⁸ *See* Anderson, *supra* note ___, at 671-74; Klerman & Reilly, *supra* note ___, at 254-256.

⁴⁸ See Anderson, supra note ___, at 671-74; Klerman & Reilly, supra note ___, at 254-256.

⁴⁹ See U.S. Dist. Ct. E.D. Tex. General Order 14-20, available at http://www.txed.uscourts.gov/cgi-bin/view_document-cgi?document=24811. The court does occasionally deviate by assigning selected patent cases to designated senior judges from other districts, however.

⁵⁰ See Anderson, supra note ___, at 673 (citing Leychkis's 2007 paper, supra note ___, at 215 tbl.8, for the proposition that "since 1999, Data Treasury Corporation, Orion IP, and IAP Intermodal have collectively filed thirty-seven patent suits in the district," each "before a single judge," respectively Judges Folsom, Davis, and Ward).

⁵¹ See Howard, supra note ___, at 15.

paragraphs we discuss what the district's procedures and practices to date suggest about whether its outsized influence is likely to continue in the future.

It is not completely clear why the Eastern District became *the* venue of choice in the first place. A comprehensive study of district court procedures and outcomes did not list it among the top 6 places to file a lawsuit in terms of win rate or in terms of aggregate rankings. ⁵² Instead, nearby Northern District of Texas had by far the best win rate from 2000-2010. And the District of Delaware was more likely to send a case to trial. ⁵³ Time to trial is only the seventh best and median damages are only the fifth best, less than half of the fourth best. ⁵⁴ The best district for combined time to trial, success rate, and median damages award remains the Eastern District of Virginia. ⁵⁵ Nonetheless, for the 17 years between 1978 and 2005, no Eastern District of Texas jury found in favor of a defendant. ⁵⁶ News of this pattern likely became more widespread and is reflected in the growth in 2005 and beyond.

Putting aside outcomes, the Eastern District's local procedures and people have also been a draw. Some of these procedures are longstanding, while others were developed in the courtroom of Judge Ward before being adopted more widely.⁵⁷ The Eastern District has maintained relatively short times to trial (though with the increase in its caseload, the district's advantage along this metric has declined).⁵⁸ Perhaps more important is early and generous discovery coupled with a docket busy enough that it is difficult to have dispositive motions heard quickly.⁵⁹ The Eastern District also has a reputation for refusing to decide summary

⁵² Mark A. Lemley, Where to File Your Patent Case, 38 AIPLA Q.J. 1, 8 (2010).

⁵³ *Id.* at 12.

⁵⁴ See Barry et al., supra note ___, at 15 (reporting that from 1999-2014, median damages in the Eastern District have been just under \$9 million, ranking fifth nationally but well ahead of the national median of \$5.4 million); Brian Howard, Lex Machina Patent Litigation Damages Report, 25 (2015)

⁽http://pages.lexmachina.com/rs/lexmachina/images/2014%20Patent%20Litigation%20Report.pdf) (reporting that, from 2005 through 2014, median damages in the Eastern District ranked third nationally, at \$8,710,000, based on 89 cases). 55 Barry et al., *supra* note , at 15.

⁵⁵ Barry et al., *supra* note , at 15.

⁵⁶ Elizabeth P. Offen-Brown, Forum Shopping and Venue Transfer in Patent Cases: Marshall's Response to TS Tech and Genetech, 25 Berkeley Tech. L.J. 61, 71 (2010).

⁵⁷ See Anderson, supra note ___, at 651-52 (2015) (noting that the district's short discovery timeline of nine months and its strictly-maintained "discovery deadlines and trial dates . . . allow[ed] plaintiffs to impose a strict timeline on often overwhelmed defendants."); Klerman & Reilly, supra note ___, at 250, 266 & m.140.

 $^{^{58}}$ See note $__$ and accompanying text.

Id. at 10-11.

⁵⁹ See Klerman & Reilly, supra note ___, at 269 (stating that, in the Eastern District, "parties must produce all documents 'that are relevant to the pleaded claims or defenses involved in this action' in conjunction with initial disclosures and without awaiting a discovery request," and that "[d]efendants must complete their document collection and production – probably the most costly aspect of discovery – within a few months of the case filing").

judgment motions,⁶⁰ which is likely at least indirectly tied to win rates and settlement pressure in that district. Its juries have a reputation of awarding generous damages in patent cases.⁶¹

And while the win rate is no longer what it was in 2005, parties in the Eastern District continue to see greater success than in other districts. According to PricewaterhouseCoopers (PwC), non-practicing entities (NPEs) had a 49% win rate there over a 20 year period, in comparison with a 26% average win rate in other high-volume districts. Ashtor and others find that, as of 2011, historic win rates for patent assertion entities (PAEs) were highest in the Eastern District among districts that decided more than five cases. Allison, Lemley, and Schwartz report that for cases filed in 2008-09, plaintiffs won and decided in 2010 or later 45% of suits overall and 72% of cases that went to trial compared with a 26% and 61% success rates, respectively, nationally. All Their study's multivariate regression analysis concludes that the Eastern District of Texas and the District of Delaware were both significantly more likely to rule for the patentee in the cases we studied than were the 'non-busy' patent districts. The Eastern District's benefits have not been limited to NPE plaintiffs. PwC also reports that the win rate for patent plaintiffs generally in the Eastern District for 1995-2014 was even higher than the NPE win rate, and highest in the nation among the leading fifteen patent venues, at 55%, with almost twice as many decisions relating to non-NPEs as to NPEs. In theory, of course, a

"The infrequency of summary judgment is not just the result of fewer motions by the parties. The Eastern District is far less likely to grant a summary judgment motion than elsewhere. One study found that the Eastern District's summary judgment motion win rate (26.2%) paled in comparison to other popular districts, like the Northern District of California (45%), the Central District of California (48.2%), the Northern District of Illinois (38.1%), and even the District of Delaware (32%). Another more comprehensive study found that accused infringers prevail on summary judgment on patent invalidity only 18% of the time in the Eastern District of Texas, compared to 31% nationwide. Similarly, patent defendants prevail on noninfringement motions 45% of the time in the Eastern District, but 62% nationwide."

⁶⁰ See id., supra note ___, at 252, tbl. 2, & appx. 2 (showing that despite a larger docket, court ruled on far fewer summary judgment motions). Reporting the results of studies by Iancu & Chung and by Allison, Lemley & Schwartz, Klerman and Reilly also note that as of 2011 and 2014:

⁶¹ See Barry Et al., supra note ___, at 15 (reporting that from 1999-2014, median damages in the Eastern District have been just under \$9 million, ranking fifth nationally but well ahead of the national median of \$5.4 million); OWEN BYRD ET AL., LEX MACHINA PATENT LITIGATION DAMAGES REPORT, 24 (2014) (reporting that, from January 1, 2000 through December 31, 2013, median damages in the district ranked third nationally, at \$8,250,000, based on 84 cases).

⁶² See Barry Et Al., supra note ___, at 16 (comparing outcomes in the Eastern District of Texas with the other 20 districts with five or more such suits). Note that Delaware had a 35% win rate, and the Northern District of California had a 16% win rate. It should be noted that the number is very small, however: 55 final NPE decisions over a period of 20 years, given NPEs' high rate of settlement.

⁶³ Jonathan H. Ashtor et al., *Patents at Issue: The Data Behind the Patent Troll Debate*, 21 GEO. MASON. L. REV. 957, 959 (2014). *See also* Barry et al. *supra* note ____, at 16.

⁶⁴ See Allison, Lemley & Schwartz, supra note ___, at 1793-94.

⁶⁵ See id. at 1791-94.

⁶⁶ See id. at 15 (reporting an "overall success rate" of 55% from 1995-2014). See also Pauline M. Pelletier, The Impact of Local Patent Rules on Rate and Timing of Case Resolution Relative to Claim Construction: An Empirical Study of the Past Decade, 8 J. Bus. & Tech. L. 451, 483 (2013) (reporting a 38% win rate in the Eastern District and a 43% win rate in the District of Delaware).

higher win rate could reflect the selection effect of higher-quality patents being asserted in a particular venue; though given the very large numbers of cases filed in the district, it might seem odd for the average quality of the patents litigated there to be significantly above the norm.

Where We are Headed

Current Trends

Assuming the favorable procedures and outcomes caused the concentration of cases today (a safe bet), are they likely to do so in the future? While the majority of this paper considers this question in view of proposed venue reforms, in the next few paragraphs we consider how filing trends might evolve in the *absence* of any venue reform. Even as venue law has largely stood still in the last few years, the rest of patent law has not. The Supreme Court's *Alice* decision has narrowed the scope of patentable subject matter, rendering a large number of existing patents invalid.⁶⁷ Procedures for challenging patents introduced by the 2011 America Invents Act, in particular, *inter partes review*, have become more popular.⁶⁸ A pair of Supreme Court cases has made it easier for prevailing parties to recoup their fees.⁶⁹ These and related developments have generally favored defendants regardless of district (though not all recent developments have),⁷⁰ resulting in high profile defense victories even in the Eastern District. For example, in 2015, Judge Gilstrap simultaneously terminated 168 cases on summary judgment, and then awarded attorneys' fees against the plaintiff.⁷¹ In fact, though judges still rule on summary judgment less often, plaintiffs only win 14% of the time when counting from 2000-June 2015.⁷²

Thus, while 2015 saw a record number of both total cases and share of cases filed in the Eastern District, 2016 has seen a decline in both figures from these peaks. Total cases were down 30% in the first quarter of 2016 from 2015 levels, 73 and the share of Eastern District cases was down to 30% of the total, from 44% of the total in 2015. In the second quarter, cases were

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⁶⁷ Alice Corp. v. CLS Bank International, 134 S. Ct. 2347 (2014) (finding abstract ideas implemented on a computer ineligible for patent protection).

⁶⁸ See Colleen Chien and Christian Helmers, Inter Partes Review and the Design of Post-Grant Patent Reviews, Stanford Tech. L. Rev. *3 n.2 (2016) (noting the rise in inter partes petitions from 514 in 2013 to 1310 in 2014.) In 2015, the number was 1737. Cyrus Morton et al., Takeaways from PTAB's Fiscal Year Statistics, Law360 (January 3, 2016), http://www.law360.com/articles/740962/takeaways-from-ptab-s-fiscal-year-statistics.

⁶⁹ See Octane Fitness, LLC v. ICON Health & Fitness, Inc. 134 S. Ct. 1749, 1756 (2014) (relaxing the standard for finding a case to be "exceptional" and fee shifting); Highmark, Inc. v. Allcare Health Management System, Inc. 134 S. Ct. 1744, 1748–1749 (2014) (finding that fee decisions should be subject to an abuse of discretion, rather than de novo, review).

⁷⁰ Halo Electronics, Inc. v. Pulse Electronics, Inc., __ U.S. __ (2016) (easing standard to prove willful infringement).

⁷¹ Joe Mullin, *In a first, East Texas judge hits patent troll with attorneys' fees*, ARS TECHNICA (Dec. 20, 2015), http://arstechnica.com/tech-policy/2015/12/in-a-first-east-texas-judge-hits-patent-troll-with-attorneys-fees/.

⁷² Klerman & Reilly, *supra* note ___, at appx. 2.

⁷³ See Howard, supra note 11.

down 23% from 2015 74 although the share of Eastern District cases rose from the 1Q to 2Q, to 37%. 75

It's too early to tell based on the numbers whether or not the share and number of cases in the Eastern District is on a long-term downward trend. However, two other data points can provide clues: how policy efforts that were intended or anticipated to reduce case concentration in the district, in the areas of transfer and joinder, have fared, and the impact on the district of the change to the patent system described earlier.

If the "American way" is to provide plaintiffs with their choice of venue, an important safeguard within the US system against abusive forum shopping is the ability to transfer a case after it has been filed. Read 28 U.S.C. § 1404(a) states that "[f] or the convenience of parties and witnesses, in the interest of justice, a district court may transfer any civil action to any other district or division where it might have been brought" For a number of years, however, the Eastern District had a reputation for being unusually hostile to motions to transfer. But in a series of cases starting in 2008, the Fifth Circuit and Federal Circuit granted writs of mandamus – extraordinary orders – to overturn transfer denials out of the Eastern District of Texas, explicitly laying out when the transferee venue was "clearly more convenient," and the case should be transferred there. In the few years following the decisions, commentators predicted the end of "forum shopping in general – and the Eastern District of Texas phenomenon in particular." But that's not what happened.

Though one might have expected that the overall transfer rate would increase since the *TS Tech* decision, the transfer rate actually has declined. ⁸⁰ This may be in part because litigants have adjusted their behavior and only filed in the Eastern District when cases meet the newly articulated standard. But a change in behavior cannot explain the whole story – the Federal Circuit has, since the *TS Tech* decision, granted petitions for mandamus thirteen times compelling the Eastern District to transfer patent litigation elsewhere – a striking number. ⁸¹ By comparison, since its founding the Federal Circuit appears to have denied all but one such petition seeking transfer out of any other district court. ⁸² Since late 2008, the district's share of

⁷⁴ See Howard, supra note 12, at Fig. 1 (reflecting that 1,666 cases were filed in 2Q2015 vs. 1252 in 2Q2016).

⁷⁵ Id

⁷⁶ Clermont & Eisenberg, *supra* note at 1509.

⁷⁷ See Offen-Brown, supra note , at 62–63. See also Anderson, supra note , at 675-76.

⁷⁸ *Id. See* Offen-Brown, *supra* note ____, at 75–85 (describing the TS Tech,VW, and Genentech cases).

⁷⁹ Mark Liang, The Aftermath of TS Tech: The End of Forum Shopping in Patent Litigation and Implications for Non-Practicing Entities, 19 Tex. Intell. Prop. L.J. 29, 32 (2010)

⁸⁰ See Klerman & Reilly, supra note ___, at 262.

⁸¹ See Paul R. Gugliuzza, *The New Federal Circuit Mandamus*, 45 IND. L. REV. 343, 346 & n.8 (2012) (identifying ten successful motions for mandamus between 2008 and 2011). Since then, by our count there have been at least six (6) more (In re Google; In re Nintendo; In re TOA Tech; In re Toyota; EON Corp IP Holdings v Apple; In re Broadcom Corp/Qualcomm/Azure).

⁸² See id. at 346 n.10, 347 n.16.

cases has increased markedly. Plaintiffs appear willing to roll the dice that their cases will not be transferred and that such a decision will withstand appeal.

Another policy intervention that was intended to target the Eastern District addressed the numbers of defendants sued there. Federal Rule of Civil Procedure 20(a)(2) states that defendants can be sued jointly when a claim arises "out of the same transaction, occurrence, or series of transactions or occurrences." From the mid-1990s, the Eastern District (among other districts) interpreted this rule liberally, allowing makers of different products to be sued jointly, absent evidence that the defendants' products were "dramatically different." As a result, and given NPE propensity to sue multiple defendants at a time, one study found the estimated number of defendants in actions filed in the Eastern District of Texas went "from 1.66 in 1994 to 12.37 in 2010," while the national average over that period generally hovered between two and four, with the exception of the last year when it went to 4.31. Moreover, while only the Eastern District represented only 10% of 2010 patent cases, it accounted for 25% of all patent defendants.

One impact of liberal joinder is to reduce the patentee's costs by enabling patentees to capture economies of scale. However, it can also put the squeeze on defendants, as "courts typically do not increase the time for presenting evidence during a trial by a multiple of the number of defendants who are sued... Each defendant was given a sharply abbreviated amount of time to present its case, despite the fact that most, if not all, of the defendants made different products whose alleged infringement of the patent presented different factual questions," (citations omitted) as one of the staffers behind the AIA put it. When Congress had the opportunity to amend patent law in 2011, it enacted a stricter joinder rule for patent

⁸³ Rule 20(a)(2) states that "[p]ersons . . . may be joined in one action as defendants if: (A) any right to relief is asserted against them jointly, severally, or in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences; and (B) any question of law or fact common to all defendants will arise in the action."

⁸⁴ The leading case, authored by Judge Leonard Davis, was *MyMail, Ltd. v. America Online, Inc.*, 223 F.R.D. 455 (E.D. Tex. 2004).

⁸⁵ Risch, *supra* note 13, at 82 tbl. 1, 92 fig.2 (showing growth in NPE and non-NPE defendant counts in districts throughout country between 1986 and 2009).

⁸⁶ See Sag, supra note ___, at 1082 tbl. 3, 1084. Another study reported that the average number of defendants in a patent infringement action filed in the Eastern District in 2010 was thirteen, compared to between two and four in other leading districts. See James Pistorino, Concentration of Patent Cases in Eastern District of Texas Increases in 2010, 81 BNA PAT. COPYRIGHT & TRADEMARK J. 803, 805-06 (Apr. 15, 2011). Yet another reports a mean of 9.1 and a median of 4 defendants in patent actions filed in the district from January 1, 2008 to September 15, 2011 (the date on which the AIA was enacted), compared with 2.4 and 1 in the Central District of California. See David O. Taylor, Patent Misjoinder, 88 NYU L. Rev. 652, 726 tbl. 1 (2013). The mean number of defendants with an identified tie (defined as incorporation, headquarters, principal place of business, or residency) to the Eastern District was 1.2; the median was 0. See id. at 724 n.309, 726 tbl. 1.

⁸⁷ See Pistorino, supra note ___, at 805-06.

⁸⁸ Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 Fed. Cir. B.J. 539, 592 (2012). ⁸⁹ See 35 U.S.C. § 299 (parties that are accused infringers may be joined in one action as defendants . . . only if any right to relief is asserted against the parties jointly, severally, or in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences. . . . ").

cases⁸⁹ with "the Eastern District of Texas's interpretation of Rule 20... [and the] substantial denial of due process to defendants" – or at least the perception of it - in mind.⁹⁰ But while the average number of defendants per patent infringement suit filed in the Eastern District fell to 1.99 in 2014,⁹¹ this reflected plaintiffs adjusting, rather than fundamentally changing, their behavior in an entirely predictable way: they now sued few defendants in many separate cases instead of many defendants in few cases. Furthermore, whatever benefits accrued from not having to coordinate (which are difficult to measure, as multiple cases were still often related for claim construction) may have been offset by the cost to small defendants who could previously rely on larger defendants to keep a large consolidated defense going but now each had to seek counsel to take the lead. Patent lawsuits continued to grow, and the total number of patent defendants sued in the Eastern District grew disproportionately with it, with the 2015 total defendants exceeding the 2010 total.⁹²

These two examples show how the Eastern District has continued to attract and grow its caseload despite developments that have restricted which cases and which defendants can be named in suits there. Why has the venue's popularity persisted? There are at least a few plausible explanations. First, that plaintiffs have adapted their behavior as the new rules have required – in the case of joinder, for example, bringing more cases to compensate for the fewer number of permissible defendants per case. Whether plaintiffs can do that in response to a particular intervention depends on the specifics, however. The second explanation is that, even though developments like *TS Tech* make certain cases harder to justify keeping in the Eastern District, they do not fundamentally change the calculus when plaintiffs are deciding to bring their cases, in light of the many advantages that the forum has. The third explanation might be that even as rules have changed, they provide discretion to district courts for supporting the implementation of rules in a way that maintains the venue's comparative advantages over other jurisdictions.⁹³

These explanations may provide clues as to how the Eastern District will fare – assuming venue rules are undisturbed – in light of the more challenging climate that patent plaintiffs are now experiencing. As described earlier, the Supreme Court has made it easier to award attorney's fees to prevailing parties and to invalidate patents as claiming impermissible subject matter. Defendants can request reviews of patents that are asserted against them using new post-grant procedures, and seek stays of parallel district court litigation. The Eastern District has changed its behavior accordingly. But consistent with its reputation, the data suggest that

⁸⁹ See 35 U.S.C. § 299 (parties that are accused infringers may be joined in one action as defendants . . . only if any right to relief is asserted against the parties jointly, severally, or in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences. . . .").

⁹⁰ Matal, supra note___, at 592.

⁹¹ See Sag, supra note , at 1084.

⁹² For the total 2010 figure of 3501, see Sag, supra note ___, at 120 (noting the average number of defendants sued in the ED of Texas in 2010 as 12.37); Klerman & Reilly supra note ___, at 249 (noting 283 total cases in 2010).

⁹³ We do not speculate in this article about why the Eastern District may seek to maintain its pro-plaintiff edge, but note that other commentators have identified judicial interest in patent cases, the positive impact of case concentration on the local economy, and post-bench career opportunities as possible motives. See e.g. Klerman and Reilly, *supra* note ____ at 270–277 and Anderson, *supra* note ____ at 661–666.

the Eastern District implemented these pro-defendant changes in a *pro-plaintiff* way relative to other districts, at least initially. As one report stated: "on awards of attorneys' fees post *Octane Fitness*, in 2015, the Eastern District of Texas granted only 9 percent of such motions, as compared to 33 percent nationwide. And, on §101 challenges, in 2015, the court granted (or partially granted) only 33 percent of all motions to find asserted patents ineligible, as compared to 64 percent nationwide."⁹⁴ In the three years following the availability of the AIA's post-grant review processes, the district granted requests to stay the district court litigation 48% of the time, as compared to 58% of the time nationwide.⁹⁵ Though it is possible that the Eastern District's relatively lower § 101 summary judgment, stay and fee-shifting rates are an artifact of the cases that are filed there, plaintiff friendly local rules and applications of the law have been blamed as well.⁹⁶ For example, Judge Gilstrap of the Eastern District initially set forth, though quickly withdrew, a process that made it difficult for litigants to file § 101 challenges.⁹⁷

There is reason to believe that these differences may diminish to some degree in the future. For example, though the Eastern District denied all fee-shifting requests in 2015, in the first four months of 2016, it granted three out of 10 of them, in line with national norms. ⁹⁸ Likewise, Judge Gilstrap of the Eastern District, who himself has decided an outsized number of cases, has suggested that he is evolving his practice. ⁹⁹ But regardless, as long as the District's implementations of these developments does not fundamentally change the calculus when plaintiffs are deciding to bring their cases – which would only happen if, on net, Texas became less attractive to plaintiffs than plaintiffs' other options — it is likely that plaintiffs will continue to select the district over those other options.

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⁹⁴ Lionel M. Lavenue et al., *De Facto Patent Reform In The Eastern District Of Texas*, Law360 (January 29, 2016), http://www.law360.com/articles/750017/de-facto-patent-reform-in-the-eastern-district-of-texas. See also Nirav Desai & Lauren Johnson, *Octane Fitness, Two Years On: How It Has Impacted District Courts' Award of Attorneys' Fees in Patent Cases*, Legal Backgrounder, Washington Legal Foundation at *4 (April 29, 2016) (<a href="http://www.skgf.com/uploads/1455/doc/Octane Fitness two years on how it has impacted district courts a ward of attorneys fees in patent cases (Desai and Johnson) Washington Legal Foundation April 2016.pdf) (reporting that in the first year following the *Octane Fitness* decision, the Eastern District granted none of the 13 motions for attorney's fees motions made, but the first 4 months of 2016, they granted three of ten).

⁹⁵ Jonathan Stroud et al., Stay Awhile: The Evolving Law of District Court Stays in Light of Inter Partes Review, Post-Grant Review, and Covered Business Method Post-Grant Review, 11 Buff. Intell. Prop. L.J. 226, 238 (2015).

⁹⁶ Petition for Certiorari at *5, *Newegg, Inc.,v. MacroSolve, Inc.,* __ S.Ct. __ (2016) (arguing that the Eastern District has set forth an elevated standard for awarding fees).

⁹⁷ See Lavenue et al, supra note 68.

⁹⁸ See Desai & Johnson, supra note ___, at *4.

⁹⁹ Ryan Davis, *Gilstrap Eases Filing Of Patent Summary Judgment Motions*, Law 360 (July 22, 2016) (http://www.law360.com/ip/articles/820536?nl_pk=131a7a57-a1ce-470e-a01f-b1f44e413c36&utm_source=newsletter&utm_medium=email&utm_campaign=ip) (describing the changes in Gilstrap's practice, including removing a requirement that litigants get his permission before seeking summary judgment or motions seeking to invalidate a patent under *Alice*, and eliminating required in-person meetings for litigants prior to discovery). *See also* Lavenue et al., *supra* note 68 (describing the softening of pro-plaintiff positions initially taken on fee-shifting, stays, and dispositive motions by ED Tex Judge Gilstrap). Both articles were cited in old version and both talk about his changes, so I included both.

Proposed Changes

Against this backdrop, at the time of this writing, there are at least two policy vehicles to change the venue rules, one in the courts and one in Congress. In the *TC Heartland* case, the well-known food company Kraft Foods ("Kraft") sued plaintiff TC Heartland LLC ("Heartland") for infringement of three of Kraft's patents covering liquid water enhancers. ¹⁰⁰ Though Kraft has its principal place of business in Illinois, it exercised its choice of venue and sued Heartland in Delaware, about 700 miles away from Heartland's home venue, the Southern District of Indiana. ¹⁰¹ Heartland moved to dismiss the action or transfer venue under 28 U.S.C. § 1404 and § 1406.

According to Heartland, it has no offices, supply contracts, registered business locations, or permanent presence in Delaware. Its only connection to the venue, then, was that it had shipped orders of the accused product pursuant to two national contracts it had, amounting to about 2% of Heartland's sales in 2013. 102

After the Delaware District Court denied Heartland's motion, Heartland filed a mandamus petition asking the Federal Circuit to overrule the District's motion. The legal argument Heartland advanced was that Congress' changes to 28 U.S.C. § 1391 (a) and (c) effectively overruled *VE Holding* and in effect, restored the proper interpretation of venue to what it was at the time of *Fourco*, and much closer the literal language of 28 U.S.C. § 1400(b), wherein "reside" is limited to the place of incorporation or primary place of business of a firm. ¹⁰³ The Federal Circuit denied this motion and the merits of Heartland's argument, and declined Heartland's request for *en banc* rehearing.

Regardless of the merits of Heartland's claim, we note that the argument was no slam dunk before the Federal Circuit. First, *VE Holding*, for better or worse, was delivered between the two congressional changes in 1988 and 2011. This means that Congress knew that patent venue was a live issue, and yet never mentioned it (or otherwise addressed it while making the change in 2011). In 1957, when *Fourco* was decided, one could argue that there had been no substantial change to venue rules that might override the specific meaning of patent venue. But that is a much taller order after two amendments that seem to broaden the general provision to more specifically cover § 1400(b)—and an appellate court ruling that agreed and governed venue for the next twenty-five years.

Another approach, being pursued by certain members of Congress, would be to amend the federal venue statute. "Venue reform" has been a feature of Congressional acts dating back to at least 2008. 104 The latest version of reform, the Venue Equity and Non-Uniformity Elimination (VENUE) Act of 2016, S. 2733, 114th Cong. was introduced by Senators Jeff Flake,

¹⁰⁰ In re TC Heartland LLC, 821 F.3d 1338, 1340 (Fed. Cir. 2016).

¹⁰¹ *Id*.

¹⁰² Id.

¹⁰³ *Id.* at 1341–1342.

¹⁰⁴ See S.3600 - Patent Reform Act of 2008, section 8 (providing venue rules very similar to VENUE Act).

Mike Lee, and Cory Gardnerand in March 2016 and would amend § 1400 and specify appropriate venue in the following districts:

- (1) where the defendant has its principal place of business or is incorporated;
- (2) where the defendant has committed an act of infringement of a patent in suit and has a regular and established physical facility that gives rise to the act of infringement;
- (3) where the defendant has agreed or consented to be sued in the instant action;
- (4) where an inventor named on the patent in suit conducted research or development that led to the application for the patent in suit;
- (5) where a party has a regular and established physical facility that such party controls and operates, not primarily for the purpose of creating venue, and has—
 - (A) engaged in management of significant research and development of an invention claimed in a patent in suit prior to the effective filing date of the patent;
 - (B) manufactured a tangible product that is alleged to embody an invention claimed in a patent in suit; or
 - (C) implemented a manufacturing process for a tangible good in which the process is alleged to embody an invention claimed in a patent in suit; or
- (6) in the case of a foreign defendant that does not meet the requirements of paragraph (1) or (2), in accordance with section 1391(c)(3).

Either development would aim to reduce the outsized influence of districts like East Texas, where few accused infringers are incorporated or are believed to have a regular and established place of business.

But if plaintiffs could not choose the Eastern District, it is unclear where they would choose, if they had such a choice. While the discussion here has compared the Eastern District to national averages, districts are far from homogenous in their treatment of patents. Thus, while NPEs exceed the national average win rate in Texas, in the Northern District of California they win 16% of the time, ten percentage points below the national average of 26%. Even the overall plaintiff win rate of 26% is below the national average (33%). It is not surprising, then, that tech companies favor this home district, in addition to their own. And if this were a study of declaratory relief actions, the analysis here would likely have been that potential defendants in a position to choose between venues would sue in the Northern District if, factoring in home court advantage, they are most likely to win there. Venue is in some sense a zero sum game.

One problem with retaining the state of incorporation as a possible venue, however, is that many large firms are incorporated in Delaware, and the District of Delaware is already the second most popular district and sometimes subject to criticism for being overly friendly to

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¹⁰⁵ See Barry et al., supra note ___, at 9 fig. 9;

patent plaintiffs (albeit somewhat less so than the Eastern District of Texas). ¹⁰⁶ Thus, venue reform commentators have looked for other options. Fromer has suggested limiting venue to a domestic firm's principal place of business, which she believes would "promote better decisionmaking . . . by tending to aggregate technology- and industry-specific patent cases in those districts that already have clusters of business engaging in a technology or industry," ¹⁰⁷ though as Klerman and Reilly note, this might give rise to a corresponding risk that defendants would be unduly advantaged due to home court advantages. ¹⁰⁸ Perhaps a better solution, as suggested by Klerman and Reilly, would be to limit venue to the district forming the largest market for the defendant's allegedly infringing product, ¹⁰⁹ though it might be considerably more difficult for the plaintiff to ascertain in advance precisely where this is.

As defendant states of incorporation will remain available to plaintiffs under various proposals, would cases merely move from Texas to Delaware if they are enacted? The hope behind these reforms – that the concentration of cases in the Eastern District would subside – and the fears that cases would just reconcentrate in Delaware can be approximated empirically. The next section sets out our approach for doing so.

PART II

To understand the potential impact of various proposals, we tested them empirically. If the arguments made by the petitioners in the *TC Heartland* case are successful, patent venue would revert to either (1) defendant's residency (place of incorporation) or (2) a combination of infringing acts plus a regular-place-of-business. The Congressional VENUE proposal, as described earlier, would add to this set of eligible venues (3) where the defendant has consented to be sued, (4) where the inventor on the patent has done research, and (5) districts in which either party had a R&D or manufacturing nexus to products embodying the invention. In this Part, we describe our methodology for modeling these rule changes and their impacts.

We performed analyses that attempted to model the main features of these venue rules. We considered what would have happened in 2015, had the proposed interpretation been in effect then. Last year patent plaintiffs filed 44% of their cases in the Eastern District of Texas. Where would they have filed (assuming that they would have filed at all) had the

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¹⁰⁶ Fromer, *supra* note ___, at 1492 (arguing that retaining state of incorporation as an alternative venue would "sacrific[e] the benefit of clustering suits by industry," since most firms incorporated in Delaware do not carry on their principal business there); Klerman & Reilly, *supra* note ___, at 281–282, 304 (noting that Delaware is already an overly popular forum).

¹⁰⁷ See Fromer, supra note ___, at 1478-79. In a case in which all properly joined defendants are foreign firms with no principal place of business in the U.S., Fromer would allow the plaintiff to sue in any district, as is the case now, see id. at 1478, and she would institute a "safety valve" under which a court could order a case transferred to the plaintiff's principal place of business "in extreme cases that raise due process concerns," see id. at 1489.

¹⁰⁸ See Klerman & Reilly, supra note ___, at 303-305. Klerman and Reilly also raise the possibility that firms could strategically locate their principal place of business to districts "with a pro-defendant reputation," see id., a possibility Fromer dismisses as unlikely, see Fromer, supra note ___, at 1491.

¹⁰⁹ See Klerman & Reilly, supra note ___, at 304-305.

proposed rules of patent venue been in place? That is to say, where would patent plaintiffs file if they couldn't all go to Texas?

To carry out our analysis, we asked Lex Machina to select 1,000 cases at random¹¹⁰ and provide us with all of the defendants in those cases. After correcting for miscodes and Doe defendants, we ended with 939 cases against 1128 defendants. We then modeled three pieces of information for each defendant/case pair. First, we approximated where each named defendant could be sued under proposed venue rules. Second, we compared the results of the first step with the actual suit's venue to determine the percentage of cases that would *have to* be moved to a different district under the proposal. That is, we flagged if the plaintiff could not file suit in its chosen district under the proposed rule. Third, we considered where plaintiff and plaintiffs of its type had sued in the past and matched that to locations where defendant could be sued, and approximated the likely venue of each suit. That is, if a plaintiff sued all over the country, then we assumed it would continue to do so. But if a plaintiff sued only in one district, we assumed it would sue again in that district if it could legally do so. For each plaintiff-defendant pair ("case" for short)¹¹¹ this yielded the following "matches":

- An exact match the plaintiff could have filed the case as is without change. If plaintiff P sued defendant D in Oregon, and D can be sued in Oregon under the proposal, then the venue would not change under the proposal.
- A plausible match the plaintiff could have filed in "Ps preferred venue" any venue plaintiff filed in in 2014-2015. For example, assume plaintiff P sues defendant D in Delaware. Assume as well that P filed three cases in 2014-2015, two in Delaware and one in Minnesota. If D could only be sued in Minnesota, we would call that a plausible match; even though P did not sue D in Minnesota, P was also not necessarily adverse to Minnesota, having sued someone else there in the last two years.
- No match the plaintiff could not sue in the chosen venue, but it could have sued in a "class preferred venue" any venue in the top five of plaintiff's type. ¹¹² If plaintiff P sued defendant D in the Northern District of Illinois, but D could not be sued in N.D. Ill., then there would be no match. But assume D could be sued in Delaware. Then we would flag that as class preferred. Delaware is one of the top five choices for NPEs in 2014-2015, and it is also one of the top five choices for product companies during that time. ¹¹³
- No match no venue is available under any of the above options. In this case the plaintiff would have to sue according to the proposed rule, but would not have any

¹¹⁰ The cases represented those initially filed in 2015, not those transferred from another district and opened in 2015, which are often miscounted as new cases if not carefully examined.

¹¹¹ In reality, each pair was not a case because some cases had multiple defendants. We address this later.

¹¹² For NPEs the top 5 were E.D.Tex., D.Del., N.D.Cal., N.D.Ill., and N.D. Tex.. For PEs the top 5 were D.Del., D.N.J., E.D.Tex., C.D.Cal., and S.D.N.Y.

¹¹³ NPE statue was provided by Unified Patents; we did not agree with every designation, but as a rough cut for this exercise, it is accurate enough.

of its plausible or plaintiff class preferences fulfilled. We assumed that the suit would be where the defendant's primary place of business was located.

Using the data sources described below, we profiled each case by plaintiff type (NPE-Patent assertion entity, NPE-small company, Individual, and, Operating Company (including universities), industry of the defendant, and whether the entity was publicly or privately held. We obtained the revenue of the entity where possible. We used this profile data to better understand the impact of proposed rule changes on different stakeholders.

To carry out our analysis, we relied on caselaw, several data sources and our own assumptions. As these have bearings on our results and introduce known limitations, we describe our efforts and sources below (see Appendix/Table A).

The proponents of *TC Heartland* would restore venue to the narrowed interpretation of 28 U.S.C. § 1400(b), which specifies that venue is proper 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." In *Brunette*, the Supreme Court, interpreting the special patent venue statute (28 U.S.C. § 1400(b)) as well as the general venue statute (28 U.S.C. § 1391(d)), confirmed that where a corporation "resides" is where it is incorporated, ¹¹⁴ and that for "aliens," or foreign companies, venue is proper in "any district." ¹¹⁵ Even if there were a reversion today, we are somewhat confident that foreign corporations could be sued in any district. ¹¹⁶ Some might argue that, after recent Supreme Court personal jurisdiction cases, ¹¹⁷ "resides" should instead be the principal place of business. We coded qualifying venue accordingly, coding state of incorporation. To the extent that residency under § 1400(b) might apply beyond place of incorporation or the new proposals suggest that, we also coded primary place of business based on the complaints (which may contain errors), and in some cases, company websites. This location would satisfy the second prong of § 1400(b) in any event – where the plaintiff is has a place of business and infringed.

For years, plaintiffs have relied on the liberal interpretation of "reside" under *VE Holding* and, therefore, have not had to rely on the prong of the venue statute that allows for venue where there is "infringement and the defendant has a regular and established place of business." This would change, however, with a law change. To determine all of the places of business associated with each party, we used ReferenceUSA, a widely-used database of business locations relied upon by other scholars¹¹⁸ which distinguishes between retail, office

¹¹⁴ Brunette Machine Works v. Kockum Industries, 406 U.S. 706, n.2 (1972) (citing Fourco, <u>353 U.S. 222</u> (1957)) ¹¹⁵ Brunette, 406 U.S. at 707.

¹¹⁶ 28 U.S.C. § 1391(c)(3) ("... a defendant not resident in the United States may be sued in any judicial district, and the joinder of such a defendant shall be disregarded in determining where the action may be brought with respect to other defendants."). Even if the special patent venue statute applied, a strict reading of it would mean you could not sue a foreign corporation in any district, which would be absurd.

¹¹⁷ See e.g. Daimler AG v. Bauman, 134 S. Ct. 746 (2014).

¹¹⁸ See e.g. Sheila E. Fleischhacker et al., Evidence For Validity Of Five Secondary Data Sources For Enumerating Retail Food Outlets In Seven American Indian Communities In North Carolina (2012) available at

and manufacturing, and other types of facilities. We supplemented Reference USA with data from Hoovers and company websites.

We had to determine whether or not every retail location should qualify as a "regular and established place of business." Under the majority view, "control" of a business is required to trigger venue. 119 Virtually any presence by a business will count under the statute, so long as it is not transitory. 120 However, independent dealers are insufficient to establish a place of business unless sufficient control is exerted. 121

Thus, to determine whether a retail location was in a state, we examined the results from Reference USA for indicia of ownership and control. This included corporate owned stores, like those owned by Costco, Wal-Mart, and GameStop. We also looked to ensure that the business presence in a state was not attributed to a subsidiary rather than the parent. And when the presence was attributed to the subsidiary, we flagged that as presence for the subsidiary, not the parent. Finally, we excluded subsidiaries whether they were whollyowned, independent franchises/dealers (which aren't really subsidiaries at all), or otherwise independent.

Once we determined that a qualifying business was present in a district, we assumed that infringement took place in the district; 124 however this assumption may not hold in every jurisdiction for every case, just as it did not in *Fourco*.

In some cases, multiple defendants were named. We coded each defendant group, as well as defendant, separately and analyzed not only whether or not the defendant, but the defendant group could be sued in the original or a desired venue. In accordance with statute,

https://ijbnpa.biomedcentral.com/articles/10.1186/1479-5868-9-137 (using ReferenceUSA for convenience food store locations),

¹¹⁹ Matthew J. Sampson, *Corporate Venue in Patent Infringement Cases*, 40 DePaul L. Rev. 207, 223 (1990); 8-21 Chisum on Patents § 21.02 ("To constitute a 'regular and established place of business," there must be some physical location at which the defendant conducts business and over which the defendant exercises control."). 120 Chisum, § 21.02 (citing several very small locations constituting a place of business: "Generally, any physical location at which business is conducted will suffice, no matter what the amount or character of the activity."). 121 *Id.* ("The cases generally hold that a defendant's distribution of products through an independent representative or agent in the district, even on an exclusive basis, does not constitute a regular and established place of business.").

¹²² In some cases where a holding corporation's only subsidiary was the owner of all the stores *and* the holding company was the only party sued, we attributed the store location to the parent holding company on the theory that a plaintiff could easily substitute the proper party in order to obtain venue.

¹²³ *Id.* ("A defendant corporation does not have a regular and established place of business in a district merely because a subsidiary has such a place. This is true even of a wholly-owned subsidiary so long as the formalities of separate existence are respected.").

¹²⁴ Three factors also led us to make this inference – a) the ubiquity of retailers as defendants, b) online sales, and c) software patents, In other words, we assumed that retailers and other branch locations would be accused of either selling products at local stores or using software at various locations (or even to communicate between locations). Further, we assumed that companies would sell products into the state even if those sales were not made by the local branches. *Id.* ("Furthermore, there need be no particular connection between the activity at the place of business and the alleged act of infringement.").

when the defendant group included a foreign defendant, the foreigner's venues was excluded from the analysis. 125

While both court and Congressional proposals would allow venue in the place of incorporation, primary place of business, or other place of business (with infringement), the Congressional VENUE bill adds additional locations: (3) where the defendant has consented to be sued, (4) where the inventor on the patent has done research, and (5) districts in which either party had a R&D or manufacturing nexus to products embodying the invention. We assumed defendants would not consent to any venue. We obtained patent data for each lawsuit and, based on the inventor's location listed on the face of a patent, determined where the inventor on the patent lived and assumed that the research occurred where the inventor lived. We attempted to model the portion of the proposal that allows for venue where either party had a R&D or manufacturing nexus to products embodying the invention as follows: for practicing plaintiffs and small company NPEs, we assumed that R&D/manufacturing/product management took place at the location of the initial assignee and at the principal place of business. For patent assertion entity plaintiffs, we assumed that no R&D location would be available under the terms of the VENUE Act. Due to a lack of reliable information, we made no assumptions about research and manufacturing locations of defendants' relevant products, but our inclusion of principal places of business and states of incorporation in the first prong of 1400(b) ("resides") likely compensates for this deficiency in some cases. For this reason, our analysis probably overstates the extent to which cases against larger defendants would have to move under the VENUE Act, although, as we note below, this number is already relatively small.

Another known shortcoming of our analysis is that, outside of "exact" matches, it is hard to tell with certainty where plaintiffs would choose to file. We assume that plaintiffs plausibly would file where they have before, due to greater familiarity with the court. The most tenuous matches, however, are those that were considered "preferred" on the basis that other plaintiffs of the same type (e.g. operating company. NPE) favored those venues in the past. In reality, those plaintiffs might consider other factors. After all, by definition if the plaintiff had not filed in one of these districts already, it may be a leap to assume it would do so later. Finally, our dataset is small – only 939 cases. Still, the distribution of districts and NPE filings is both random and representative of the population; we believe that the results from this analysis are instructive.

While our primary analysis makes it possible to estimate the share of patent cases that are filed outside of plaintiffs and defendants' primary districts, we also thought it would be instructive to explore the extent to which patent cases differ (or do not) from non-patent cases along this metric. To do so, we performed a supporting analysis of venue in non-patent cases, by analyzing a limited sample of data with respect to two sets of defendants: 1) three top patent defendants from 2015 (Samsung, Apple, and Actavis)¹²⁶ for which we gathered data on all of their non-patent cases in 2015, and 2) 99 randomly selected patent defendants for which

¹²⁶ Brian Howard, *Lex Machina 2015 Year in Review Litigation Report*, at ____ (on file with the authors)

¹²⁵ 28 U.S.C. § 1391(c)(3).

we gathered data on up to 10 non-patent cases in 2015.¹²⁷ For the randomly selected patent defendants we noted where their primary place of business and state of incorporation was, based on complaints. We compared these defendant districts to the districts where the defendant was actually sued.

PART III

In Part III we present the results of our analysis, organized around the central questions behind the case for and the results of proposed venue reforms. The case for reforming venue is motivated by the sense that plaintiffs are filing extensively out of defendants' venues, and choosing the Eastern District of Texas. Congressional and court reforms are being advanced on the basis that they would change case filing patterns, in a way that would reduce the high concentration of cases in the Eastern District and more evenly distribute cases across the country, in venues relevant to the cases. We test all of these premises, by first establishing the status quo (current filing patterns) and then by reporting how case filings would have been distributed according to our model under Congressional and court reform. We report each reform scenario separately, referring to the narrowed interpretation of Section 1400 advanced by the litigants in *TC Heartland* as "TC Heartland reform," and to Congressional enactment of the VENUE Act as "VENUE reform" or "Congressional reform."

How Extensively are Plaintiffs Filing Out of Defendants' Venues?

Though it is widely accepted that NPEs are filing in the Eastern District, the extent to which patent plaintiffs in general are taking advantage of permissive venue to sue outside of

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¹²⁷ Defendants include: 3M Company, ACE US Holdings, Inc., Adore Me, Inc., Advance Stores Company, Inc., Alembic Pharmaceuticals Limited, Alkem Laboratories Ltd., Alliant Energy Corporation, Allstate Insurance Company, Alvogen Pine Brook Inc., Amazon, American Airline, AOL, Audible Magic Corporation, AVer Information Inc., Avon Products, Barnes & Noble Booksellers, Barrel House Cooker, LLC, Bath & Body Works, Blue Cross and Blue Shield Association, BOK Financial Corporation, Boschung America, LLC, BPI LABS, LLC, Bristol-Myers Squibb Company, Broadcom Corporation, Verizon Wireless, Cequel Communications LLC, Ceridian HCM, Inc., Charter Communications, Inc., City and County of San Francisco, Command Airsoft Technologies, Inc., Commercial Bank of Texas, N.A., Connected Telematics, Extreme Outdoor Products, D-Link Systems, Inc., Dale Alldredge, Dr. Reddy's Laboratories, LTD., Edwards Lifesciences Corporation, EMC Corporation, Eva Airways, FCA US LLC, Fitbit, Inc., Ford Motor Company, Foursevens LLC, Fremont Bancorporation, GTM Products, LLC, Harper and Two, Inc., Hotpads Inc., InterActiveCorp, Ipsen Biopharmaceuticals, Inc., ITC Inc, Jive Communications, Inc., King Digital Entertainment PLC, Knight Transportation, Inc., Kohl's Corporation, KVH Industries, Inc., Landis+Gyr Technologies, LLC, Ledequipped.com Corp, LEDwholesalers.com, Inc, Lockheed Martin Corporation, LA Times, Luhua Biomarine (Shandong) Co., Ltd., Mercedes-Benz USA, Mylan Inc., Dual Electronics Corp., NEC Corporation, NeoMedia Technologies, Inc., NHL Interactive Cyberenterprises, LLC, Nico Chee-Ping, Nvidia Corporation, OpticsPlanet, Inc., Optimum Trading Co., LLC, OptionsXpress, Inc., Philips Electronics North America Corporation, Praestone Services Ltd., Pulse Secure, LLC, Puzhen, R.B. Sandrini, Inc., Redbox Automated Retail, LLC, Regions Financial Corporation, Royal Design, Inc., RTIC Coolers, LLC, Sandisk Corporation, Schurman Fine Papers, Schuster Products, LLC, Strassburg Medical, LLC, Straumann Holding AG, Telebrands Corp., Texas Instruments Incorporated, Thunder Box Inc, Tolmar Inc., Tyco Integrated Security Puerto Rico, Inc., U.S. Auto Parts Network, Inc., Vitek Industrial Video Products, Inc., Voipo LLC, W.R. Grace & Co. - Conn.'s, Wal-Mart, Wusthof-Trident of America, Inc., and XO Communications, LLC.

defendants' venue has not before been established. Based on our analysis, we found that defendants were sued in the district of their primary place of business only 14% of the time, leaving defendants out of their home venue a striking 86% of the time (Table 3). This behavior was not limited to NPEs – though they sued within the defendant's primary venue only 10% of the time, operating companies sued within defendant's primary venue only 20% of the time, and 80% of the time outside of defendant's preferred venue.

If all defendant's business locations are factored in, including retail stores, defendants were sued in a place of business 29% of the time, and at the place of their incorporation about 15% of the time. The salience of this result is unclear. On the one hand, defendants can hardly complain about being sued where incorporated given the long history of the patent venue statute. On the other hand, many defendants have few ties to their state of incorporation other than filing paperwork.

In contrast, plaintiffs sued in their own home districts 60% of the time. This count may be inflated by NPE formation of LLCs in the Eastern District, even if none of the members live there. For example, operating companies only sued in their home district 44% of the time. But even when plaintiffs didn't sue in their own home districts, they didn't necessarily sue in defendant's primary place of business: by and large, plaintiffs sued anywhere they wanted.

Table 3: Location of 2015 Filings by Entity Type

Location	Operating	NPE	Total
Defendant Principal Place of Business	19.0%	10.0%	14%
Defendant Places of Business (All)	27.1%	27.3%	29%
Defendant Place of Incorporation	17.4%	12.4%	15.4%
Defendant Businesses (All) or Incorporation	35.3%	32.3%	33.2%
Plaintiffs' Principal Place of Business	44.4%	66.7%	60%

Are Patent Case Filing Patterns Exceptional?

Our comparative sample of non-patent cases shows the extent to which patent law may be an outlier. Table 4 shows the results of our "deep dive" case studies of the three most sued patent defendants, as well as our "shallow dive" of the first ten cases of a random selection of 99 patent defendants. 52 of these defendants had only patent cases, resulting in about a sample that included 271 non-patent cases among approximately 47 defendants. .¹²⁸ We compared non-patent filing patterns to patent filing patterns along three principal dimensions:

¹²⁸ Several of the companies hit all ten cases, while some had none at all. Thus, the results could possibly be biased toward the smaller companies. We divided the defendants into two groups: one of parties who saw eight or more cases, and one who saw seven or less. The percentage parties sued in their primary place of business did not change appreciably between groups (19% v. 20%). There was a difference for suits in the state of incorporation (4% v. 11%), which we attribute to larger companies incorporating in popular lawsuit locations such as Delaware, New York and New Jersey.

the extent to which defendants were sued outside of their primary place of business, the extent to which multiple defendants were named in cases, and the extent to which cases were concentrated in particular districts.

Table 4 shows that non-patent cases were more likely to be filed within defendant's home districts than they were in patent cases were. But not by much – while 14% of patent cases were filed in the defendant's primary place of business, 20% of non-patent cases were filed there. While the difference between 14% and 20% is significantly different, 129 it is not economically different—plaintiffs of all stripes file their cases where they want, and that is rarely where the defendant keeps its offices.

We observed greater differences between non-patent and patent case filing patterns along two other dimensions, however. In 2015, about 44% (45% in our sample) of patent cases in were filed in a single district, the Eastern District of Texas. Among non-patent cases in our random sample, the top-district attracted only 14% of all cases. This suggests that while non-patent plaintiffs are suing in their preferred venues, rather than defendants', they aren't all choosing the same venue.

The share of cases involving multiple defendants is also a lot higher among non-patent cases. While 56% of non-patent cases involved multiple defendants (Table 4), only 16% of patent cases did. Ironically, the additional defendants in those non-patent cases did not reduce the out-of-district filings to match patent cases. When there were multiple parties, one would have expected at least one of them to be located in the district while all the rest would be dragged in from a distant location. But instead, the randome plaintiffs were sued in groups more than half the time, and yet were still sued in their home district more often than patent plaintiffs.

This evidence confirms that the AIA misjoinder rule, curbing the practice of naming multiple unrelated patent defendants in a single case, seems to have been successful in reducing the number of defendants in each case (consistent with the spike in post-AIA cases described earlier) because there was a much smaller proportion of cases involving multiple defendants as compared to non-patent cases. But it also suggests that the single-defendant patent rule did not shift multiple-defendant patent cases into defendants' home districts.

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¹²⁹ P=,008 in a one-side t-test.

Table 4: Comparison of Patent and Non-Patent Venue

Cohort	All Defendants	Defendant	Defendant	Defendant	Defendant
	(Patent)	Apple	Samsung	Actavis	Random
		(Non-	(Non-	(Non-	(Non-
		Patent)	Patent)	Patent)	Patent)
N	1026	47	37	396	271
Sued in D primary place of business (PPB)	14.1%	21.3%	38.2%	0.0%	20.3%
Sued in D place of incorporation (POI)	15.3%	14.9%	35.3%	0.0%	9.6%
Cases involving multiple defendants	16.2%	59.6%	73.0%	96.5%	55.6%
Share of cases in top district	45.3%	21.28%	35.14%	90.66%	13.6%
Top District	(E.D.Tex)	(N.D.Cal.)	(N.D.Cal.)	(N.D.III.)	(N.D.Cal.)

But while comparing our random sample of non-patent cases with our patent cases suggests both similarities and differences between these two groups, our case studies provide some insight into the variable dynamics of particular types of non-patent cases. First, Apple was sued outside of its principal place of business 79% of the time and Samsung 62% of the time. Actavis, a pharmaceutical company, in contrast was *never* sued in its home district, despite hundreds of cases filed against it. The Actavis cases comprised state mass tort claims, in which multiple parties all filed suit against multiple drug companies at once. This is analogous in some ways to high volume patent litigation, in which many defendants are sued in the same district by a plaintiff. In addition many of the Samsung cases, which were filed in the defendant's home district (N.D. Cal.) were antitrust cases, which have special venue rules. This implies that special venue rules can have the effect of increasing the number of cases brought in the defendant's home district. We explore this prediction by looking next at how patent venue reform would change case filing patterns.

How Would Patent Venue Reform Change Patent Case Filing Patterns?

While the preceding results were based on treating each party-case separately, we considered venue on a case-by-case basis in order to predict where cases would have been brought under different rules. We find that if TC Heartland reform had been in effect, 52% of operating companies would have to pick a different district than they had originally chosen. For NPEs, 60% would have to pick a different district. Another 5% of the cases for each plaintiff type would be a plausible match – that is, could be brought somewhere else the plaintiff sued in the last two years. That this percentage is small is not surprising, given that most plaintiffs don't sue in that many locations.

If the VENUE Act were passed, however, the change from the status quo would be a lot less dramatic for operating company plaintiffs - only 18% would have to move their case while the rest could have been filed as is. NPE plaintiffs also have more choice of where to file under the VENUE Act than under TC Heartland reform, but their choices are still significantly

constrained: 54% would have to move their cases, a drop of six percentage points. Table 5 below shows the different outcomes of our predictions.

Table 5: Likely Outcomes Under Different Reform Options, by Party

	H	leartland		V	ENUE Act	
	nonNPE	NPE	Total	nonNPE	NPE	Total
Exact Match (Case Would Not Move)	47.7%	40.0%	42.3%	82.2%	46.4%	57.1%
Non-Exact Match (Case Would Move)	52.3%	60.0%	57.7%	17.8%	53.6%	42.9%
Plausible Match - Plaintiff Sued There						
Before	5.7%	5.0%	5.2%	4.3%	6.8%	6.1%
No Match - But D can be sued in a						
popular district	26.0%	36.9%	33.7%	7.5%	31.5%	24.3%
No Match - D cannot be sued in any of						
the above	20.6%	18.1%	18.8%	6.0%	15.3%	12.6%

Table 5 shows that under TC Heartland reform, 42% of the cases would remain in place, with another 5% moving to another district that the plaintiff had used in the past. That number grows to 57% exact matches under the VENUE Act, with another 6.1% for plausible matches. The plausible matches were smaller than expected, but reasonable given that most plaintiffs only sued in one or two districts. Thus, there were few places for them to go if they could not file in their first choice. The "popular" district results are not surprising. Because many cases are currently filed in Texas, Delaware, California, and Illinois, and because many defendants are located in at least one of those places, then displaced plaintiffs could have properly sued many defendants in one of those popular districts if they chose to.

Where Would Patent Cases Move To?

Given the predicted displacement, we attempted to predict where cases might move to. Table 6 below reports the original locations of each case, followed by the likely location after under each proposed reform. The distribution of original cases roughly matches the broader distribution, implying a representative data set.

We found that under TC Heartland reform, 46% of defendants would be sued in the district of their principal place of business. This drops to 37% under the VENUE Act. In that sense, the VENUE Act appears to favor operating plaintiffs at the expense of defendants, with minor effects on NPE plaintiffs.

Results are divided by NPE and nonNPE status to show the varying impacts of venue rule changes.

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¹³⁰ Only the top 10 districts are shown; there were 94 in total.

Table 6: Modeled Venue of Under Different Reform Options, by Party Type

	Fina	al Districts – N	NonNPE	Fi	nal Districts -	- NPE
			Prediction			Prediction
	Actual	Prediction	VENUE	Actual	Prediction	VENUE
District	Case	Heartland	Act	Case	Heartland	Act
E.D.Tex.	7.8%	4.6%	5.0%	64.1%	19.0%	19.1%
D.Del.	10.0%	18.9%	11.0%	7.3%	25.8%	23.1%
D.N.J.	10.3%	12.1%	10.7%	0.9%	2.4%	2.0%
C.D.Cal.	7.5%	14.2%	9.6%	2.1%	2.6%	2.4%
N.D.Cal.	5.0%	2.8%	3.9%	3.0%	17.3%	16.6%
S.D.N.Y.	3.9%	3.6%	3.6%	2.7%	3.0%	2.7%
N.D.III.	3.6%	1.8%	3.2%	2.7%	4.1%	4.3%
N.D.Tex.	1.4%	0.4%	0.7%	2.7%	3.6%	3.3%
S.D.Fla.	0.4%	1.8%	1.1%	2.9%	1.8%	4.6%
W.D.Wash.	3.6%	1.4%	3.6%	0.5%	1.2%	1.5%

Table 6 makes clear that either of the proposed changes to the venue rules would likely result in a general shift in case locations. For the NPE group, that should would be decidedly away from the Eastern District of Texas, though 19% of cases could still be brought there, down from nearly 65%. For both groups, the move would be primarily to the District of Delaware, which would increase from 10% to 19% for operating companies and from 7% to 25% for NPEs. Interestingly, a move to the Northern District of California is only pronounced for the NPEs, from 3% to more than 16%, whereas operating companies would likely sue there less than they already do.

Table 6 also shows that the overall redistribution of cases under the VENUE Act would be comparable to the impact of TC Heartland reform, but that non-NPE cases would redistribute to lesser extent under VENUE than under TC Heartland reform. Under the VENUE Act, we estimate that operating company filings in Delaware would rise from the present 10% to 11%, whereas TC Heartland reform would result in 19% of non-NPE cases being filed there. Similarly, filings in the Central District of California would rise only 2% (from 7.5% to 9.6% of all cases) under Congressional reform rather than double (from 7.5% to 14.2%) under Heartland. Note that these differences are not offset by large gains among the top-10 most popular districts. Instead, operating companies would continue to sue where they sue now – at their own primary place of businesses, which are geographically dispersed.

This explains why NPE filing patterns would be similar under the VENUE Act or court-initiated TC Heartland reform. NPE primary places of business are mostly in the Eastern District of Texas. Putting aside for a moment the question of whether they actually operate out of Texas (a hotly disputed point), the VENUE Act would not allow them to file in Texas because

they do not make a product there. Thus, there would be no shift to the plaintiff's "hometown," the way there would be for operating companies. We do not address whether this is by design to deliberately harm NPEs or whether it is merely favoritism to plaintiffs that actually perform research, development and manufacturing. We do note, however, that our final predictions are not a foregone conclusion. We defaulted to the defendant's place of business if there were no other matching districts, but presumably NPEs could file where the original inventors lived, and that would be geographically dispersed.

How Concentrated Would Cases Be?

Under either reform, the cases would see a different concentration than today, and decidedly less concentrated with respect to the most populous district. The most concentrated district under either model is the District of Delaware, but would have 10 percentage points less than the Eastern District's 2016 share and 20 percentage points less than the Eastern District's 2015 share.

Table 7: Predicted Most Popular Districts, by Reform Option

District	2015 Actual	Heartland	VENUE Act
D.Del	9%	23.8%	19.5%
E.D.Tex.	44%	14.7%	14.9%
N.D.Cal.	4%	13.0%	12.8%
C.D.Cal.	5%	6.1%	4.6%
D.N.J.	5%	5.3%	4.6%

While the top district would be concentrated, the top three districts would, in total, account for about 50% of all the cases—the same as they do in the first half of 2016 (but about 10% less than in 2015). The cases would, however, be a bit more distributed among those three districts.

When divided by entity type, however, the concentration changes. NPEs would be concentrated in the same top three districts, with about 40% in Delaware and Northern California and another 19% in Texas. Among operating companies, the top three districts would be Delaware, Central California, and New Jersey, with the top two hosting 33% under Heartland reform and 22% under the VENUE Act.

Which Parties Would Move?

The model also allows some examination of which parties would be most likely to see a change of districts. Overall, VENUE Act reform would require only 18% of non-NPE cases to be refiled, and over 50% of NPE cases to be filed. The differential impact on defendant types are

illustrated more clearly in the analysis of TC Heartland reform, which would cause a majority of both NPE and non-NPE cases to move.

Among those defendants sued by NPEs companies located all over the country would move districts at about the same rate. However, in absolute terms, the number of defendants in Northern and Central (Los Angeles) California is much larger than the others. More than a quarter of all the moved NPE cases would affect companies in those two districts alone. This would affect nearly 75% of the cases filed against companies from those two districts.

Among those companies sued by operating companies, the most significantly impacted districts would be New Jersey (known for pharmaceuticals), Northern District of Illinois, and the Northern District of California.

Among the plaintiffs, the most significantly impacted would be those who have a principal place of business in the Eastern District of Texas. More than two-thirds of plaintiffs located there would have to move to another district. Most of these are NPEs, though there were a handful of operating companies affected.

Among operating companies, about one-third of foreign plaintiffs would have to choose a different district. Virtually all of the cases filed by operating companies located in Washington, Utah, and Illinois would have to move.

Some cases would not move, however. Foreign companies would move only 5% of the time—primarily in cases in which they were defendants with non-local U.S. companies. These were very few of the cases, as most foreign companies were either sued on their own or were sued with companies that in district. In addition, defendants with large geographic footprints like large retailers for example would still be subject to jurisdiction outside of their favored jurisdictions.

PART IV

This study examined the concentration of cases in the Eastern District of Texas and explore how changing venue rules might affect that concentration of cases. It considers where parties are being sued, where they would be sued under different reform, and which types of parties will be affected. It finds that plaintiffs of types are suing out of defendant venue a majority of the time, and that proposed reforms would change this, particularly as to the Eastern District of Texas. Court reform would go the farthest, causing both NPEs and non-NPEs to have to refile most of their cases, while the reforms Congress is contemplating would have a much greater impact on NPEs than others. The normative takeaways from this exercise will surely depend on viewpoint. But if there is a will to reform venue, this paper shows what the path may look like.

APPENDIX

Table A

Data	Primary Data Source	Comments
1,000 2015 cases selected at	Lex Machina	Final cases reflect slight skew
random		to NPE cases (71% in
Plaintiff status codings (e.g.	Unified Patents	sample 131 vs. 67% overall 132),
NPE, OpCo, Individual)		but are representative of
		venue distribution
Party Place of Incorporation	Complaints	Supplemented with website
and Primary Place of Business		research
Place of Business with R&D	ReferenceUSA, Innography	Supplemented with website
or manufacturing nexus to		research and Hoovers
the invention		

¹³¹ Authors' analysis

¹³² Unified Patents, *2015 Patent Dispute Report* (December 31, 2015) available at http://www.unifiedpatents.com/news/2016/5/30/2015-patent-dispute-report.