

NOTE

THE LIMITED ECONOMIC IMPACT OF *TC HEARTLAND, INC. V. KRAFT FOODS LLC*

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¹ J.D. Candidate, Boston University School of Law, 2019. Dedicated to Roozie. I would like to thank my parents and my brother, Josh, for their steadfast support and the Boston University Journal of Science and Technology Law editors for their excellent work on this article.

INTRODUCTION

In a report issued on March 30, 2017, the United States Patent and Trademark Office (“USPTO”) recognized one of the principal reasons for the increases in the cost and occurrence of patent litigation, and the corresponding decline in patent value: “[p]olicy makers and courts have struggled for over a quarter of a century with the ‘proper venue’ for patent litigation.”² Weak venue laws diminish patent value in part by exposing patent owners to increased “non-practicing entity” (“NPE”) initiated litigation.³ NPE suits are particularly prominent in districts where courts have local rules that tend to favor plaintiffs over defendants; the fact that these districts are often far from the defendant’s principal place of business tends to increase the overall costs of patent litigation.⁴ By way of illustration, beginning in the early 2000s, the Eastern District of Texas became the primary venue for patent litigation.⁵ The district heard over forty-three percent of all patent cases in 2015, with one judge — Judge James Rodney Gilstrap — hearing nearly twenty percent of all patent cases in the same year.⁶ Plaintiffs preferred this venue for patent litigation because of the district’s interpretation of the Federal Rules of Civil Procedure, the district’s patent local rules, and the district’s reputation for large plaintiff-favoring infringement

² *The Drastic Rise in Patent Litigation (2000 -2015)*, U.S. PATENT & TRADEMARK OFF. (Mar. 30, 2017), <https://www.uspto.gov/learning-and-resources/ip-policy/economic-research/dramatic-rise-patent-litigation-2000-2015#> [<https://perma.cc/AHK4-7NNP>] [hereinafter *The Drastic Rise in Patent Litigation*].

³ See Dennis Crouch, *Law Professors Call for Patent Venue Reform*, PATENTLY-O (July 13, 2016), available at <https://patentlyo.com/patent/2016/07/professors-patent-reform.html>; Daniel Nazer & Vera Ranieri, *Why Do Patent Trolls Go to Texas? It’s Not for the BBQ*, ELECTRONIC FRONTIER FOUND. (July 9, 2014), <https://www.eff.org/deeplinks/2014/07/why-do-patent-trolls-go-texas-its-not-bbq> [<https://perma.cc/TL2R-HQVG>] (discussing patent local rules and concluding that “local solutions to national problems can create even bigger problems: disuniformity, inconsistency, and forum shopping.”); *NPE Litigation: Costs by Key Events*, RPX CORP (Mar. 2015) [hereinafter RPX Corp 1], <https://www.rpxcorp.com/wp-content/uploads/2014/12/Final-NPE-Litigation-Costs-by-Key-Events.pdf> [<https://perma.cc/8F49-62WZ>] (“NPEs cost operating companies an estimated \$12.2 billion in both legal fees (and other legal costs) and settlement (or judgment) amounts in 2014.”); Erick Schonfeld, *The Terrible Cost of Patents*, TECH CRUNCH (Aug. 19, 2011), <https://techcrunch.com/2011/08/19/terrible-cost-patents/> [<https://perma.cc/4DH5-H7B7>] (“Patents are increasingly become [sic] nothing more than financial and legal weapons, to be amassed in portfolios by ‘non-practicing entities’ (i.e. patent trolls) and used to extort protection money from economically productive companies.”).

⁴ See sources cited *supra* note 3.

⁵ Nazer & Ranieri, *supra* note 3.

⁶ Steve Brachmann, *2015 Litigation Trends Highlight Increased Patent Litigation, Decreases in File Sharing Cases*, IP WATCHDOG (Jan. 8, 2016), <http://www.ipwatchdog.com/2016/01/08/2015-patent-litigation-trends/id=64774/> [<https://perma.cc/97JU-AFVM>].

verdicts.⁷ The rising costs of patent litigation and the increased popularity of NPE suits threatens to undermine the utilitarian bargain that underlies the patent system.

The Intellectual Property Clause of the Constitution, Article 1 Section 8 Clause 8, provides Congress with the power, “[t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”⁸ The utilitarian justification for granting inventors limited monopolies over their discoveries assumes that the benefits of the inventors’ disclosures outweigh the social harms of their monopolies.⁹ Relying on this assumption, the Constitution strikes a bargain — it grants inventors limited monopolies in exchange for publicly disclosing and enabling society to benefit from the subjects thereof.¹⁰ While the patent bargain emanates from the Constitution, the requirements for patentability that are meant to effectuate it — which include a written description

⁷ Jonas Anderson, *Court Competition for Patent Cases*, 163 U. PENN. L. REV. 631, 653 (2015) (“The speed, large damage awards, outstanding win-rates, likelihood of getting to trial, and plaintiff-friendly local rules suddenly made the Eastern District the venue of choice for patent plaintiffs.”); Daniel Nazer, *Deep Dive: Why We Need Venue Reform to Restore Fairness to Patent Litigation*, ELECTRONIC FRONTIER FOUND. (Aug. 17, 2015), <https://www.eff.org/deeplinks/2015/08/deep-dive-why-we-need-venue-reform-restore-fairness-patent-litigation> [<https://perma.cc/MM59-5BVX>] (stating that the rules for the Eastern District of Texas possessed “plaintiff-friendly features such as a compressed discovery schedule and a short timeline to trial. This so-called ‘rocket docket’ attracted patent plaintiffs eager to use the compressed schedule to pressure defendants to settle. For those cases that went to trial, the district got a reputation for huge patent verdicts”); Brachmann, *supra* note 6 (“2015 continued the dominance of the Eastern District of Texas as the court venue of choice for the vast majority of patent infringement cases filed in United States courts.”).

⁸ U.S. CONST. art. 1, § 8, cl. 8.

⁹ See Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1032 (2005) (“We are better off with the traditional utilitarian explanation for intellectual property, because it at least attempts to strike an appropriate balance between control by inventors and creators and the baseline norm of competition.”). See also PETER S. MENELL ET AL., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGY AGE* 16 (2017) (“Utilitarian theory and the economic framework built upon it have long provided the dominant paradigm for analyzing and justifying the various forms of intellectual property protection.”) (citations omitted). Professor Menell’s book provides several other secondary justifications for intellectual property rights such as “promoting innovation and creativity” and “distributive and social justice.” *Id.* at 12, 16.

¹⁰ MENELL ET AL., *supra* note 9, at 17 (“The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that it is the best way to advance public welfare through the talents of authors and inventors in ‘Science and Useful Arts.’”).

of the invention,¹¹ enablement of others to practice the invention,¹² novelty,¹³ non-obviousness, and limits on patentable subject matter¹⁴ — are set out in statute.¹⁵

All told, for the patent system to function properly, patents must confer economic benefits to inventors that outweigh the cost of enforcing those benefits against potential infringers.¹⁶ The rising costs of patent litigation and the absence of clear boundaries of the property rights that patent claims confer, however, both threaten to undermine the utilitarian rationale for the patent system.¹⁷ In fact, one empirical analysis found that the costs of litigation to enforce patent rights for public firms rose beyond the expected benefits conferred by the inventor's patent monopoly, in all industries except chemical and

¹¹ 35 U.S.C. § 112(a) (2012); *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int'l, Inc.*, 534 U.S. 124, 142 (2001) (explaining that “[t]he disclosure [of a written description and sufficient enablement] required by the patent act is the *quid pro quo* of the right to exclude.”).

¹² See sources cited *supra* note 11; *Graham v. John Deere Co.*, 383 U.S. 1, 9 (1966) (stating that the principal architect of the United States Patent System, Thomas Jefferson, believed that “[o]nly inventions and discoveries which furthered human knowledge, and were new and useful justified the special inducement of a limited private monopoly [in exchange for their disclosures].”).

¹³ 35 U.S.C. § 102(a) (2012); ROBERT P. MERGES & JOHN F. DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIAL* 323 (7th ed. 2017) (justifying the novelty requirement on the grounds that “society’s contract with the inventor is binding because the inventor has given something of value (due to its newness) in exchange for the patent”).

¹⁴ 35 U.S.C. § 103 (2012); *Graham*, 383 U.S. at 9; MERGES & DUFFY, *supra* note 13, at 515 (recognizing that the economic justification for the non-obviousness doctrine is that “if an idea is so obvious . . . then the incentives provided by the patent system may be unnecessary to generate the idea. In such circumstances the patent will have social costs . . . without necessarily having any social benefit because . . . others would have developed the idea even without the incentive of a patent”).

¹⁵ 35 U.S.C. § 101 (2012); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 88 (2012) (stating that in order to determine patent eligible subject matter courts must evaluate that claimed subject matter in the context of the purposes of patent law and “the underlying functional concern here is a relative one: how much future innovation is foreclosed relative to the contribution of the inventor”).

¹⁶ JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* 9 (2008).

¹⁷ See *id.* (“Poor notice causes harm because it subjects technology investors to an unavoidable risk of disputes and litigation.”). See also James Bessen, *The Evidence Is In: Patent Trolls Do Hurt Innovation*, HARV. BUS. REV. (Nov. 2014), <https://hbr.org/2014/07/the-evidence-is-in-patent-trolls-do-hurt-innovation> [<https://perma.cc/N4BH-KQR4>] (“Research shows that patent trolls cost defendant firms \$29 billion per year in direct out-of-pocket costs; in aggregate, patent litigation destroys over \$60 billion in firm wealth each year.”); *Patent Infringement Lawsuits are on the Rise Thanks to Patent Trolls*, FASHION LAW (May 25, 2016), <http://www.thefashionlaw.com/home/patent-lawsuits-are-on-the-rise-thanks-to-patent-trolls> [<https://perma.cc/KRX8-W9RT>]; Schonfeld, *supra* note 3; *The Drastic Rise in Patent Litigation*, *supra* note 2.

pharmaceuticals, thereby diminishing the conventional justification for patents.¹⁸

Until early 2017, the Federal Circuit's interpretation of 28 U.S.C. § 1400(b), the patent litigation venue statute, allowed potential plaintiffs to bring suit for patent infringement anywhere, provided the court had personal jurisdiction over the defendant.¹⁹ As a result of this interpretation, plaintiffs could cherry-pick favorable courts and often force defendants to incur large litigation expenses or settle potentially frivolous claims for their nuisance value.²⁰ This phenomenon has led many, including news outlets,²¹ members of Congress,²² the USPTO,²³ and prominent patent scholars, to urge venue reform as a critical part of the solution to the rising costs of patent litigation.²⁴ Additionally, several empirical studies examining the effect and effectiveness of NPE litigation strategies on the practice of patent law, found that NPE forum selection strategies are a driving force behind the rising cost of patent litigation.²⁵

¹⁸ BESSEN & MEURER, *supra* note 16, at 15, 16 (stating that since the end of the 1990s, the expected net impact of patent litigation has been a reduction in profits from innovation due to the risk of litigation).

¹⁹ 28 U.S.C. §§ 1391(c), 1400(b) (1988); *VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574, 1584 (Fed. Cir. 1990) (“Thus, the first test for venue under § 1400(b) with respect to a defendant that is a corporation, in light of the 1988 amendment to § 1391(c), is whether the defendant was subject to personal jurisdiction in the district of suit at the time the action was commenced.”).

²⁰ Brian J. Love & James Yoon, *Predictably Expensive: A Critical Look at Patent Litigation in the Eastern District of Texas*, 20 STAN. TECH. L. REV. 1, 5 (2017) (concluding that judges in the Eastern District of Texas exercise discretion to dampen effects of prior patent reform measures and Supreme Court opinions that would otherwise eliminate frivolous claims); Anderson, *supra* note 7, at 653 (“Patent-holding companies (known as patent trolls or non-practicing entities) began to view the Eastern District as an ideal venue for their repeat appearances”); Nazer & Ranieri, *supra* note 3 (explaining that in the Eastern District of Texas, local rules that tending to deny summary judgment motions allow actors with meritless claims to extract settlements from defendants).

²¹ Love & Yoon, *supra* note 20, at 4 (“[W]ord of the Eastern District of Texas spread far enough that the rural court and its judges have garnered attention from the likes of the New York Times, VICE, NPR, and HBO’s John Oliver.”).

²² Venue Equity and Non-Uniformity Elimination Act of 2016, S. Res. 2733, 114th Cong. (2016).

²³ *The Drastic Rise in Patent Litigation*, *supra* note 2.

²⁴ Jonas Anderson, *Judge Shopping in the Eastern District of Texas*, 48 LOY. U. CHI. L. J. 539, 543 (2017) (arguing that venue reform is necessary to evenly distribute patent cases across the country); Love & Yoon, *supra* note 20, at 37.

²⁵ Lauren Cohen et al., *Patent Trolls: Evidence from Targeted Firms* 33 (Harv. Bus. Sch. Fin., Working Paper No. 15-02, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2269087&rec=1&srcabs=2464303&alg=1&pos=1 (concluding that NPE’s are effective at bringing opportunistic lawsuits that raise litigation costs for innovative firms); Love & Yoon, *supra* note 20, at 5 (observing that there

On May 22, 2017, the Supreme Court unanimously held in *TC Heartland v. Kraft Food Group Brands, LLC* that “a domestic corporation ‘resides’ only in its State of incorporation for purposes of the patent venue statute,” reversing the Federal Circuit’s longstanding interpretation of 28 U.S.C. § 1400(b).²⁶ The holding affirmed the Supreme Court’s earlier decision in *Fourco Glass Co. v. Transmirra Prods. Corp.*, stating that the correct interpretation of the patent venue statute would permit parties to bring suit “in 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.”²⁷ Although potential defendants and scholars were quick to hale *TC Heartland* a sweeping victory against the NPE practices and rising patent litigation costs, the decision’s ambiguity threatens to undermine its potential cost-reducing effect.²⁸ Moreover, it is unclear whether patent local rules in districts that have seen a rise in litigation following *TC Heartland* will further reduce the decision’s economic benefits.²⁹

This Note will examine the economic implications of the *TC Heartland* decision in order to offer a discussion about the decision’s likely effects on the economics of patent litigation. *TC Heartland* rendered a relatively narrow interpretation of venue law, which will likely reduce the average cost of patent litigation and reduce the ability of NPEs to threaten frivolous claims in exchange for nuisance value settlements. However, other factors are likely to mitigate the decision’s expected economic benefits. First, a substantial number of NPE suits are still being filed in the Eastern District Texas. Second, the new most popular patent litigation venues are also the ones where the litigants are most likely to go trial, and, therefore, the average length of litigation and trial rates may also

is no simple fix to discourage patent plaintiffs in the Eastern District of Texas apart from venue reform).

²⁶ 137 S. Ct. 1514, 1517 (2017).

²⁷ 353 U.S. 222, 225, 229 (1957).

²⁸ See, e.g., James Dabney, *TC Heartland and its Aftermath: A Litigant’s View*, LAW360 (Sept. 28, 2017, 4:15 PM), <https://www.law360.com/articles/966696/tc-heartland-and-its-aftermath-a-litigant-s-view> [<https://perma.cc/DEN3-284Q>].

²⁹ See, e.g., Letter Urging Caution on the VENUE Act from Adam Mossoff, Law Faculty, Antonin Scalia Law School, et al., to Chuck Grassley, Chairman, Committee on the Judiciary, et al. (Aug. 1, 2016) [hereinafter Letter from 28 Law Professors & Economists], https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2816062 [<https://perma.cc/RX46-84MW>] (citing PricewaterhouseCoopers LLP, *2015 Patent Litigation Study* (May 2015), <http://www.pwc.com/us/en/forensic-services/publications/assets/2015-pwc-patent-litigation-study.pdf>.) (stating that the District of Delaware and the Northern District of California “happen to be districts where it is considered much more difficult to enforce patent rights.”); Love & Yoon, *supra* note 20, at 5 (“We also observe that allegedly defendant-friendly jurisdictions such as the Northern District of California have characteristics that in many respects are quite similar [to the E.D. Tex.]”) (footnotes omitted).

increase.³⁰ Third, the increasing popularity of litigation in front of the Patent Trial and Appeal Board — generally a less expensive forum than a district court — also raises uncertainty about the decision’s future effects.³¹

On balance, it therefore appears that the *TC Heartland* decision will likely have a minimal impact on the economics of patent litigation. Although the number of suits by NPEs and the total number of patent suits is likely to fall, NPEs may begin to bring cases in districts where cases are more likely to go trial, where damages awards are higher on average, and where local rules provide similar advantages to those enjoyed in the Eastern District of Texas.³² Further, patent litigation in the increasingly popular District of Delaware is often considerably slower and thereby more expensive than the national average.³³ Overall, *TC Heartland* holds the potential to reduce the number of suits by NPEs across the country, at least in the short-term. However, *TC Heartland* may simultaneously increase the average length of patent litigation and average number of patent cases that evolve into trials. The combined effects of both consequences may result in small, if any, increases in patent value.³⁴

The rest of this Note will proceed as follows: Section I examines the patent venue case law prior to *TC Heartland* and its effect on patent litigation practice. Section II examines the *TC Heartland* court’s reasoning and identifies some areas of the law that they decision left unaddressed, including what will happen to cases already filed under the old interpretation of the venue law and what constitutes a “regular and established place of business” under the new interpretation of 28 U.S.C. § 1400(b).³⁵ Section III presents data illustrating changes in litigant forum selection, overall number of patent cases filed, NPE litigation strategies, and damages awards following the *TC Heartland* decision. Section IV provides an economic analysis of this data — examining changes in observed behavior among patent litigants — and argues that while the reduced number of NPE suits could increase the value of innovation, the increase of filings in districts where cases are more likely to go trial and take longer to be decided. Section VI considers the future of patent litigation after *TC Heartland* and attempts to offer some insights on how to further reduce the costs of patent litigation in light of the effects of the decision.

³⁰ See discussion *infra* Section IV.

³¹ 2017 *in Review: A Year of Transition*, RPX CORPORATION (Jan. 2, 2018), <https://www.rpxcorp.com/2018/01/02/2017-in-review-a-year-of-transition/#venue> [<https://perma.cc/LA24-BN57>] [hereinafter RPX Corp. 2].

³² See discussion *infra* Section IV.

³³ Anderson, *supra* note 7, at 675.

³⁴ See discussion *infra* Section IV.

³⁵ See Steven Pepe & Samuel Brenner, *Implications of a Revitalized 28 U.S.C. 1400(B): Identifying the Regular and Established Place of Business for Patent Venue in the Internet Age*, 33 *TOURO L. REV.* 675, 677, 679-80, 701 (2017) (arguing that the biggest unresolved issue regarding patent venue law following *TC Heartland* is ascertaining what defines “regular and established place of business,” under 28 U.S.C. § 1400(b), especially in the case of primarily internet-based businesses, like eBay).

I. RELEVANT CASE LAW PRIOR TO *TC HEARTLAND*

Prior to 1897, federal civil courts decided all issues of venue under the general venue statute, The Judiciary Act of 1789, which, “provided that federal civil suits could be filed either where the defendant was an inhabitant or where the defendant could be found and served.”³⁶ In 1887, Congress narrowed venue law to permit venue in cases of federal question jurisdiction, “only in the district where the defendant was an inhabitant,”³⁷ while maintaining that actions based in diversity jurisdiction were proper, “in the district where either the plaintiff or the defendant resided.”³⁸ The Supreme Court later noted that the 1887 amendments raised considerable uncertainty about “the applicability of the Act of 1887 to patent infringement proceedings.”³⁹

In 1897, uncertainty as to the proper venue for patent litigation prompted Congress to draft the original statute exclusively governing patent venue, Section 48 of the Judicial Code, 28 U.S.C. § 109.⁴⁰ That statute reads in pertinent part:

In suits brought for the infringement of letters patent the district courts of the United States shall have jurisdiction, in law or in equity, in 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.⁴¹

The first Supreme Court case regarding Section 48 of the 1897 Judiciary Act, *Stonite Products Co. v. Melvin Lloyd Co.*, did not arise until 1942.⁴² In *Stonite*, the plaintiff asserted that under Section 52 of the 1897 Act a case “against two or more defendants residing in different judicial districts within the same state [may] be brought in either district.”⁴³ The Court held, however, that the general venue statute, Section 52, did not supersede the specific statute governing patent venue, Section 48, because Congress intended the Act of 1897 to exclusively control venue in patent infringement proceedings.⁴⁴

³⁶ Judiciary Act of 1789, ch. 20 § 11, 1 Stat. 73, 79; Paul R. Gugliuzza & Megan M. La Belle, *The Patently Unacceptable Venue Statute*, 66 AM. U. L. REV. 1027, 1034 (2017).

³⁷ Gugliuzza & La Belle, *supra* note 36, at 1034.

³⁸ *Id.*

³⁹ *Stonite Prod. Co. v. Melvin Lloyd Co.*, 315 U.S. 561, 564 (1942); Gugliuzza & La Belle, *supra* note 36, at 1034.

⁴⁰ *Stonite*, 315 U.S. at 563.

⁴¹ 28 U.S.C. § 109 (1940); *Stonite*, 315 U.S. at 563 (holding that “Section 48 is the exclusive provision controlling venue in patent infringement proceedings.”).

⁴² *Stonite*, 315 U.S. at 561.

⁴³ *Id.* at 562.

⁴⁴ *Id.* at 565-66 (“The Act of 1897 was adopted to define the exact jurisdiction of the federal courts in actions to enforce patent rights and thus eliminate the uncertainty produced by the conflicting decisions on the applicability of the Act of 1887 as amended to such litigation. That purpose indicates that Congress did not intend the Act of 1897 to dovetail with

Twelve years later, the Supreme Court affirmed the *Stonite* interpretation following amendments to the general venue law.⁴⁵ In *Fourco*, plaintiff successfully argued that the 1948 amendments to the general venue statute, which resulted in 28 U.S.C. § 1391(c), altered the patent venue law.⁴⁶ As a result, the Court of Appeals held that venue was proper in patent litigation if the requirements of the general venue statute or the patent venue statute were met.⁴⁷ The Supreme Court rejected the Court of Appeals' interpretation and held that the new patent venue statute, 28 U.S.C. § 1400(b), exclusively governed venue determinations in patent litigation and that a defendant corporation's residence for purposes of the statute was its place of incorporation.⁴⁸

The patent venue statute, 28 U.S.C. § 1400(b), has remained unchanged since the Supreme Court's decision in *Fourco*.⁴⁹ However, in 1988, Congress amended the general venue statute, 28 U.S.C. § 1391(c), to state: "[f]or purposes of venue under this chapter, . . . a defendant that is a corporation . . . shall be deemed to reside in any judicial district in which such defendant is subject to the court's personal jurisdiction."⁵⁰ The 1988 amendments to the general venue statute spawned new arguments that the general venue statute now also applied to patent litigation.⁵¹ These arguments led to the Federal Circuit's *VE Holding Corp. v. Johnson Gas Appliance Co.* decision that ushered in a twenty seven year-long era of liberal patent venue law.⁵²

In *VE Holding Corp.*, the plaintiff argued that the amendments to the general venue statute also applied to the patent venue statute because Congress used the term "under this chapter" to preface the amendment.⁵³ The defendant countered that despite the amendments to the general statute, the patent venue statute remained unchanged and the Supreme Court's precedent in *Fourco* continued to control venue determinations in patent litigation.⁵⁴

the general provisions relating to the venue of civil suits, but rather that it alone should control venue in patent infringement proceedings.").

⁴⁵ *Fourco*, 353 U.S. at 228.

⁴⁶ *Id.* at 223.

⁴⁷ *Id.* at 223.

⁴⁸ *Id.* at 228 (stating "28 U. S. C. § 1400(b) made no substantive change from 28 U. S. C. (1940 ed.) § 109 as it stood and was dealt with in the *Stonite* case."). In the following fifteen years, the Supreme Court twice affirmed its decision in *Fourco*. See *Brunette Machine Works, LTD. V. Kockum Industries, Inc.*, 406 U.S. 706, 711-12 (1971); *Schnell et al. v. Peter Eckrich & Sons, Inc., et al.*, 365 U.S. 260, 262-63 (1961).

⁴⁹ *TC Heartland LLC v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514-15 (2017).

⁵⁰ 28 U.S.C. § 1391(c) (1988) (citation omitted).

⁵¹ *VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574, 1575 (Fed. Cir. 1990).

⁵² *Id.* at 1574.

⁵³ *Id.* at 1578 ("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").

⁵⁴ *Id.* at 1576, 1578-79.

The Federal Circuit held that the 1988 amendments to the general venue statute altered the meaning of the term “residence” in the patent venue statute as well.⁵⁵ The Court first stated that: “[t]he phrase ‘this chapter’ refers to chapter 87 of title 28, which encompasses §§ 1391–1412, and thus includes § 1400(b). On its face, § 1391(c) clearly applies to § 1400(b), and thus redefines the meaning of the term ‘resides’ in that section.”⁵⁶ Further, while the *Fourco* decision “is generally viewed as holding that § 1400(b) is the ‘exclusive’ venue statute in patent infringement actions,”⁵⁷ Congress’s decision to amend 28 U.S.C. § 1391(c) altered the statutory basis that the *Fourco* decision rested on. In other words, according to the Federal Circuit, the 1988 amendments effectively overturned the *Fourco* ruling.⁵⁸

As a result, the issue to be decided was: “what, as a matter of first impression, should we conclude the Congress *now* intends by this new language in the venue act.”⁵⁹ Using the statute’s language and sparse legislative history,⁶⁰ the Court determined that Congress’ intent was to harmonize the general and patent venue statutes.⁶¹ Accordingly, the Court held that a defendant resides in any district where, “the defendant was subject to personal jurisdiction in the district of suit at the time the action was commenced.”⁶² Further, the Court asserted: “[t]his new venue rule we discern from the express words of the Congress is neither illogical nor unfair. Authorities have long argued that venue in patent infringement actions should be no different than in other civil cases.”⁶³ Following this decision, a plaintiff could bring a patent infringement suit in any court having personal jurisdiction over the defendant.⁶⁴

After the Federal Circuit’s *VE Holding Corp* decision, courts began to compete for patent litigants by “establish[ing] procedural rules, administrative procedures, and informal norms of case management” favorable to the party

⁵⁵ *Id.* at 1578.

⁵⁶ *Id.*

⁵⁷ *Id.* at 1579 (stating “Section 1391(c) as it was in *Fourco* is no longer.”).

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.* at 1582 (citations omitted) (“Professor Edward H. Cooper, the reporter for the Judicial Conference subcommittee which prepared the Conference’s recommendation adopted by the Congress, wrote in a December 4, 1986 memorandum to the subcommittee explaining the proposed revision: ‘The [new] definition of corporate residence in § 1391(c) now provides a basis for applying the substantial number of venue statutes enacted as part of various substantive federal laws. *As a matter of caution, the proposal limits its definition of residence to the venue provisions gathered in Chapter 87 of the Judicial Code, 28 U.S.C. §§ 1391 through 1412.*’”).

⁶¹ *Id.* at 1584.

⁶² *Id.*

⁶³ *Id.* at 1583.

⁶⁴ *Id.* at 1584 (“[T]he first test for venue under § 1400(b) with respect to a defendant that is a corporation, in light of the 1988 amendment to § 1391(c), is whether the defendant was subject to personal jurisdiction in the district of suit at the time the action was commenced.”).

selecting the forum.⁶⁵ In this vein, beginning in 2000, the Eastern District of Texas developed a set of patent local rules, case management norms, and a reputation for being unlikely to transfer venue.⁶⁶ These characteristics quickly attracted a substantial number of patent litigants seeking to take advantage of *VE Holding Corp*'s liberal interpretation of the patent venue law.⁶⁷ For example, the Eastern District of Texas designed its case management system in such a way that a single judge was assigned 100% of patent cases that arose from a particular division.⁶⁸ Thus, prospective litigants could “judge shop” simply by filing their case in a particular division of the Eastern District of Texas.⁶⁹ The Eastern District of Texas also established a nine-month discovery period, strict case management timelines, and higher than average trial and plaintiff win rates, which further attracted substantial numbers of patent litigants.⁷⁰

The above-mentioned practices of the Eastern District of Texas, in particular, proved tremendously successful in attracting patent litigants.⁷¹ Having recognized this trend, NPEs quickly began to flock to those courts with favorable procedural rules.⁷² Accordingly, following the *VE Holding Corp* decision the number of patent cases overall and the number of cases filed by NPEs rose dramatically across the country.⁷³ As patent litigation continued to concentrate in the districts with the most favorable procedural rules, commentators began to urge reform, highlighting forum shopping as one of the primary causes in the decline in patent value.⁷⁴

II. THE *TC HEARTLAND* DECISION AND THE QUESTIONS IT LEFT UNANSWERED

In *TC Heartland*, the Supreme Court rejected the Federal Circuit's interpretation of the term “residence” in the patent venue statute, 28 U.S.C. § 1400(b), holding it distinct from the general venue statute, 28 U.S.C. § 1391(c).⁷⁵

⁶⁵ Anderson, *supra* note 7, at 643.

⁶⁶ *Id.* at 652, 671, 676.

⁶⁷ *Id.* at 653, 695.

⁶⁸ *Id.* at 672 (“If a litigant prefers Judge Clark, for example, he or she need only file the case in either Beaumont or Lufkin because Judge Clark is assigned 100% of patent cases filed in those districts.”).

⁶⁹ *Id.* (“Some regular patent infringement plaintiffs, including non-practicing entities, consistently file[d] in a single division to have their cases heard before the same judge.”).

⁷⁰ *Id.* at 652–53.

⁷¹ *Id.* at 650 (noting that in 2013 nearly half of all cases were filed in the Eastern District of Texas and the District of Delaware).

⁷² Yan Leychikis, *Of Fire Ants and Claim Construction: An Empirical Study of the Meteoric Rise of the Eastern District of Texas as a Preeminent Forum for Patent Litigation*, 9 YALE J.L. & TECH. 193, 232 (2007).

⁷³ *Id.* at 197, 214.

⁷⁴ See *supra* text accompanying notes 21–25.

⁷⁵ 28 U.S.C. §§ 1391(c), 1400(b) (2012); *TC Heartland LLC v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514, 1515 (2017) (“As applied to domestic corporations, ‘reside[nce]’ in §

The issue in *TC Heartland* was whether the 1988 amendment to the general venue statute altered the meaning of the term “resides” in the patent venue statute.⁷⁶

Respondent Kraft Foods Group Brand, Inc. (“Kraft”) had sued TC Heartland LLC (“TC Heartland”) in the United States District Court for the District of Delaware for patent infringement based on TC Heartland’s sale of drink mixes.⁷⁷ TC Heartland, an Indiana corporation with its principal place of business in Indiana, had contacts with the state of Delaware only inasmuch as it shipped the allegedly infringing products there.⁷⁸ TC Heartland argued that based on these contacts venue in Delaware was improper under 28 U.S.C. § 1400(b). However, the district court denied TC Heartland’s petition to transfer the case to the United States Court for the Southern District of Indiana.⁷⁹ The district court held, and the Federal Circuit affirmed, that under *VE Holding Corp.*, “the first test for venue under § 1400(b) with respect to a defendant that is a corporation, in light of the 1988 amendment to § 1391(c), is whether the defendant was subject to personal jurisdiction in the district of suit at the time the action was commenced.”⁸⁰ Both courts concluded that TC Heartland’s shipping of goods into Delaware was sufficient to establish minimum contacts and therefore venue was proper in Delaware.⁸¹

The Supreme Court, however, held that as a matter of statutory interpretation the Federal Circuit’s interpretation of “residence” in *VE Holding Corp.* was incorrect.⁸² It instead found that, “a domestic corporation ‘resides’ only in its State of incorporation for purposes of the patent venue statute.”⁸³ The Supreme Court further stated that venue is proper in patent litigation where either: the “‘defendant resides [*i.e.*, place of formation for businesses or domicile for persons], or where the defendant has committed acts of infringement and has a regular and established place of business.”⁸⁴ In ruling that a corporation resides *only* in its place of incorporation, the Supreme Court overturned the longstanding precedent that had allowed potential patent litigation plaintiffs to forum shop with relative ease.⁸⁵ Nevertheless, since *TC Heartland* only raised the issue of the proper definition of “residence” under 28 U.S.C. § 1400(b), the

1400(b) refers only to the State of incorporation. The amendments to § 1391 did not modify the meaning of § 1400(b) as interpreted by *Fourco*.”).

⁷⁶ *TC Heartland*, 137 S. Ct. at 1520.

⁷⁷ *Id.* at 1517.

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *VE Holding Corp.*, 917 F.2d at 1584.

⁸¹ *TC Heartland*, 137 S. Ct. at 1517.

⁸² *Id.* at 1521.

⁸³ *Id.* at 1517, 1521.

⁸⁴ *Fourco Glass Co. v. Transmirra Prods. Corp.*, 353 U.S. 222, 223 (1957).

⁸⁵ *TC Heartland*, 137 S. Ct. at 1521 (affirming the *Fourco* Court’s interpretation of 28 U.S.C. § 1400(b) — *i.e.*, that “residence” only means state of incorporation).

opinion left some key issues unaddressed that may ultimately threaten to undermine the holding's potential impact.

A. *What constitutes: "a regular and established place of business"?*

The Court's decision in *TC Heartland* failed to clarify the meaning of "regular and established place of business" under the new interpretation of 28 U.S.C. § 1400(b).⁸⁶ The initial data on litigant behavior following the *TC Heartland* decision shows "an increase in venue motions that cite to the second prong of the patent venue statute"⁸⁷ — *i.e.*, the prong which treats "whether a defendant has a regular and established place of business and has committed acts of infringement within the district."⁸⁸ Comprehending how courts will interpret this prong is necessary to understand whether *TC Heartland* will increase the value of innovation by reducing litigation costs and NPE forum-shopping practices. If NPEs and other potential plaintiffs can continue to forum shop on the premise that a single retail store or even a single employee working from home, for example, constitutes "a regular and established place of business," then the effect of *TC Heartland*'s holding that a corporation's residence is its place of incorporation will be greatly reduced.⁸⁹

In *TC Heartland*, the Supreme Court focused on determining the meaning of "residence," as applied in § 1400(b), which was largely irrelevant after the *VE Holding Corp.* decision, to the exclusion of determining the meaning of the phrase "regular and established place of business."⁹⁰ In the wake of the *TC Heartland* decision, judges and NPEs took advantage of the latent ambiguity to craft arguments that would allow parties to continue to forum shop, thereby effectively undermining the *TC Heartland* decision's intended benefits.⁹¹ Prior to the Federal Circuit's holding in *VE Holding Corp.*, parties' arguments often centered around whether the defendant had a regular and established place of

⁸⁶ Pepe & Brenner, *supra* note 35, at 678-79.

⁸⁷ RPX Corp., *Q3 Data Update: Patent Litigants and Courts Adjust to Recent Rulings, with Further Changes Brewing*, RPX BLOG (Oct. 2, 2017), <https://www.rpxcorp.com/2017/10/02/q3-data-update-patent-litigants-and-courts-adjust-to-recent-rulings-with-further-changes-brewing/> [<https://perma.cc/VEY6-QDL9>] [hereinafter RPX Corp. 3]; RPX Corp., *Venue Data: Litigation Activity in the Nine Weeks Following TC Heartland*, RPX BLOG (July 27, 2017), <https://www.rpxcorp.com/intelligence/blog/venue-data-litigation-activity-in-the-nine-weeks-following-tc-heartland/> [<https://perma.cc/547B-RKET>] [hereinafter RPX Corp. 4].

⁸⁸ 28 U.S.C. § 1400(b) (2012).

⁸⁹ *Id.*

⁹⁰ *TC Heartland*, 137 S. Ct. at 1520 ("[T]he only question we must answer is whether Congress changed the meaning of [resides in] § 1400(b) when it amended § 1391"); Pepe & Brenner, *supra* note 35, at 677-78 ("One of the effects of this decision is to raise once again what had been a key and thorny question implicated by the special patent venue statute").

⁹¹ *In re Cray*, 871 F.3d 1355, 1360 (Fed. Cir. 2017) (granting writ of mandamus and finding that the district court's ruling, that an employee working from home constituted a regular and established place of business for a large corporation, was an abuse of discretion).

business in the district⁹² However, the phrase escaped a precise definition and such a determination was usually limited to the facts of the case.⁹³ For instance, one court noted that “[i]t is true that no reliable test has been devised by which a court can determine whether or not a foreign corporation maintains a regular and established place of business within any certain District.”⁹⁴

After the *TC Heartland* decision, in *In re Cray*, the Federal Circuit established a three-factor test for determining whether a place is a “regular and established place of business” for purposes of the patent venue statute.⁹⁵ The three-factor test requires that: “(1) there must be a physical place in the district; (2) it must be a regular and established place of business; and (3) it must be the place of the defendant.”⁹⁶ Failure to meet any of the three statutory requirements rendered the venue improper under § 1400(b).⁹⁷ The Court went on to describe each factor in significant detail so as to establish uniformity in the application of this three-factor test at the district court level.⁹⁸

Under the first factor, to establish a “physical place in the district . . . the ‘place’ need not be a ‘fixed physical presence in the sense of a formal office or store’ . . . [but] there must still be a physical, geographical location in the district from which the business of the defendant is carried out.”⁹⁹ The Federal Circuit added that, in the context of employees working from home, a showing that the employer stored “literature, documents, . . . products” and inventory at the location weighed in favor of finding that the employer had a regular and established place of business in the district.¹⁰⁰

In terms of the second requirement, that “the place ‘must be a regular and established place of business,’” the Federal Circuit focused on the proper interpretation of the terms “regular” and “established.”¹⁰¹ The Court cited two cases prior to *VE Holding Corp* to demonstrate what constituted a “regular” place of business, explaining that a business was regular “if it operates in a

⁹² *Id.*

⁹³ *See id.* (noting that “the law is unclear” on what constitutes “a regular and established place of business”). *See also* *Regenlab USA LLC v. Estar Technologies Ltd.*, No. 16-08771, 2017 3601304, at *2 (S.D.N.Y. 2017) (“Substantial confusion exists regarding the circumstances in which an entity will be found to have a ‘regular and established place of business’ in the district”); *Johnston v. IVAC Corp.*, 681 F. Supp. 959, 962 (D. Mass. 1987) (collecting cases and noting conflicting interpretations of the phrase among different districts and then stating, “[t]his phrase has evoked a wide variety of opinions as to the type and extent of contacts which will satisfy the venue requirement”).

⁹⁴ *Pepe & Brenner*, *supra* note 35, at 678 (quoting *Up-Right, Inc. v. Aluminum Safety Prods., Inc.*, 165 F. Supp. 742, 744 (D. Minn. 1958)).

⁹⁵ *In re Cray*, 871 F.3d at 1360.

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ *Id.* at 1362.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

‘steady[,] uniform[,] orderly[, and] methodical’ manner.”¹⁰² It further stated that a business was “established” if its location was sufficiently permanent and gave two examples from case law to show the threshold of permanence required for a place to be “established.”¹⁰³ The Court then opined that, in the context of employees who work from home, whether an employee could change location without the approval of their employer was an important consideration in establishing permanence.¹⁰⁴

In discussing the final factor, “the place of the defendant,” the Federal Circuit distinguished between the place of the defendant corporation and the place of a defendant’s employee. The Court stated, “the defendant must establish or ratify the place of business. It is not enough that the employee does so on his or her own.”¹⁰⁵ The Court elaborated that the relevant considerations included: whether the business had advertised that place as one where it conducts business, the presence of signage or other objective indicators of defendant’s business presence within the district, “whether the defendant owns or leases the place, or exercises other attributes of possession or control over the place. . . . [And] whether the defendant conditioned employment on an employee’s continued residence in the district or the storing of materials at a place in the district.”¹⁰⁶ Additionally, the Court cautioned against focusing too heavily on objective indicia such as advertisements, signs, and phonebooks, stating that “the mere fact that a defendant has advertised that it has a place of business or has even set up an office is not sufficient; the defendant must actually engage in business from that location.”¹⁰⁷ Finally, the Court opened the door for district courts to compare the defendant’s business activities in one district against their activities in another, reasoning that “[s]uch a comparison might reveal that the alleged place of business is not really a place of business at all.”¹⁰⁸

In *In re Cray*, the Federal Circuit attempted to provide clearer guidance on the meaning of the phrase “regular and established place of business,” acknowledging that “no precise rule has been laid down and each case depends on its own facts.”¹⁰⁹ Significantly, many of the precedents cited by the Federal

¹⁰² *Id.* at 1363 (quoting WILLIAM DWIGHT WHITNEY, *THE CENTURY DICTIONARY* 5050 (Benjamin E. Smith, ed. 1911). The Court further explained that “[a] ‘regular place of business’ is, obviously, a place where such business is carried on ‘regularly’ and not merely temporarily, or for some special work or particular transaction.” *Id.* (citing *Phillips v. Baker*, 121 F.2d 752, 756 (9th Cir. 1941)).

¹⁰³ *Id.* (“As an example, one court held that a business that semiannually displayed its products at a trade show in the district had only a temporary presence . . . On the other hand, a five-year continuous presence in the district demonstrates that the business was established for purposes of venue”) (citations omitted).

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.* at 1364.

¹⁰⁸ *Id.*

¹⁰⁹ *Id.* at 1362.

Circuit date to before the existence of the Internet and other technological innovations that have reshaped how most companies conduct business.¹¹⁰ Accordingly, even after the *In re Cray* decision, substantial uncertainty remains about where the net-based companies like Google, Uber, and eBay, have a “regular and established place of business.”¹¹¹ Some commentators have argued that 28 U.S.C. § 1400(b) is ill-suited to address net-based businesses and that courts should refrain from stretching the meaning of the statute because doing so will lead to further uncertainty.¹¹²

Although in issuing a writ of mandamus¹¹³ the Federal Circuit sent a strong message in *In re Cray*, the uncertainty about the proper interpretation of “regular and established place of business” threatens to allow parties to continue to attempt to forum shop for favorable courts.¹¹⁴ Such uncertainty will likely result in increased litigation about proper venue, as the initial data following *In re Cray* demonstrates,¹¹⁵ thereby diminishing the cost-reducing benefits of the *TC Heartland* decision.¹¹⁶

B. Is TC Heartland an intervening change in law?

Another key issue left unaddressed in the *TC Heartland*, was whether the decision was an intervening change in law. If so, parties would be able to plead a defense of improper venue despite having failed to raise the defense in their first responsive pleading, and thus having procedurally defaulted on that right.¹¹⁷ If this was not considered an intervening change in law — and these parties had therefore indeed missed their opportunity to plead improper venue — then it is likely that the economic impact of the decision will be delayed, at least until cases that were pending at the time of *TC Heartland* decision are decided.

¹¹⁰ See generally *id.*; Pepe & Brenner, *supra* note 35, at 679 (“[B]y trying to apply law that is at least three decades old to very different real-world circumstances, courts will likely be reading far more into 28 U.S.C. § 1400(b) than Congress ever conceived of or intended.”).

¹¹¹ See Pepe & Brenner, *supra* note 35, at 680.

¹¹² *Id.*

¹¹³ A writ of mandamus is an order from a superior court directing the judge of an inferior court to correct a decision. A mandamus is filed when a party wants to appeal the decision of a court but is blocked from seeking ordinary appellate review. *Mandamus*, LEGAL INFO. INST., <https://www.law.cornell.edu/wex/mandamus> [<https://perma.cc/SK5W-A9SP>] (last visited Feb. 2, 2019).

¹¹⁴ 28 U.S.C. § 1400(b) (2012); *In re Cray*, 871 F.3d at 1357; See RPX Corp. 3, *supra* note 87.

¹¹⁵ See, e.g., *In re Cray*, 871 F.3d at 1356; RPX Corp. 4, *supra* note 87.

¹¹⁶ See 28 U.S.C. § 1400(b).

¹¹⁷ FED. R. CIV. P. 12(h)(1)(A); see *Oyster Optics, LLC v. Coriant America Inc.*, No. 16-1302, 2017 WL 4225202, at *4 (E.D. Tex. Sept. 22, 2017) (“Accordingly, even if *TC Heartland* were to be considered an intervening change in the law—which this Court is persuaded is not the case—because the omission of improper venue from Ciena’s first 12(b) motion constitutes a ‘procedural misstep,’ Ciena cannot now ‘invoke intervening Supreme Court case law’ in order to ‘correct’ it.”).

Under Fed. R. Civ. P. 12(h)(1)(A), a party must plead a defense of improper venue in their first responsive pleading, or the defense is procedurally waived as long as the improper venue defense was “available to the [defendant]” when the defendant made the initial Rule 12(b) motion.”¹¹⁸ For *TC Heartland* to be considered an intervening change in law, the improper venue defense raised in *TC Heartland* must not have been legally “available” prior to the decision.¹¹⁹ In other words, prior to *TC Heartland*, a party could not argue that the *VE Holding Corp* court incorrectly interpreted the term “resides” as written in 28 U.S.C. § 1400(b), and that under the correct interpretation a defendant corporation “resides” only in its state of incorporation.¹²⁰ Immediately following the decision, district courts were split regarding whether or not the improper venue defense was available prior to *TC Heartland*.¹²¹

District courts that held that the defense was available prior to *TC Heartland* reasoned that the decision merely affirmed the earlier Supreme Court precedent in *Fourco*. These courts claimed that the conflict between *Fourco* and *VE Holding Corp* had been a viable improper venue defense for defendants prior to *TC Heartland*.¹²² Some courts reasoned that “[s]ince 1957, the Supreme Court has consistently held that venue in patent cases is determined by 28 U.S.C. § 1400(b). The Federal Circuit is not empowered to overturn a decision of the Supreme Court. Accordingly, the objection to improper venue was available to defendant [prior to *TC Heartland*].”¹²³ Finally, the Eastern District of Texas, acknowledged that the improper venue defense had been available even though prior to *TC Heartland*, the same Court routinely rejected it.¹²⁴ The irony of these

¹¹⁸ FED. R. CIV. P. 12(b)(3); FED. R. CIV. P. 12(g)(2); FED. R. CIV. P. 12(h)(1)(A); *In re Micron Tech., Inc.*, 875 F.3d 1091, 1096 (Fed. Cir. 2017).

¹¹⁹ *In re Micron Tech., Inc.*, 875 F.3d at 1096.

¹²⁰ *VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574, 1578 (Fed. Cir. 1990); *In re Micron Tech., Inc.*, 875 F.3d at 1096.

¹²¹ *See* *President and Fellows of Harvard College v. Micron Tech. Inc.*, 270 F. Supp. 3d 331, 335-36 (D. Mass. 2017) (collecting cases finding in favor and against *TC Heartland* being an intervening change in law).

¹²² *See, e.g.*, *Realtime Data LLC v. Carbonite, Inc.*, No. 17-121, slip op. at 2 (E.D. Tex. July 11, 2017) (“This Court agrees with decisions holding that ‘TC Heartland does not qualify for the intervening law exception to waiver because it merely affirms the viability of *Fourco*.’” (quoting *Elbit Sys. Land & C4I Ltd. v. Hughes Network Sys., LLC*, No. 15-37, 2017 WL 2651618, at *20 (E.D. Tex. June 20, 2017)); *see also* *The Chamberlain Grp., Inc. v. Techtronic Indus. Co., Ltd.*, No. 16-6097, 2017 WL 3205772, at * 1 (N.D. Ill. June 28, 2017) (“The conflict between *Fourco* and *VE Holding* was a defense that was available to Moving Defendants just as easily as it was to the plaintiff in *TC Heartland*.”).

¹²³ *Amax, Inc. v. ACCO Brands Corp.*, No. 16-10695, 2017 WL 2818986, at *3 (D. Mass. June 29, 2017).

¹²⁴ *See, e.g.*, *Navico, Inc. v. Garmin Int’l, Inc.*, No. 16-190, 2017 WL 2957882, at *3 (E.D. Tex. July 11, 2017) (rejecting the defendant’s argument that the *TC Heartland* defense was new, and finding that the defendant’s waiver was thus not excused); *Realtime Data LLC*, slip op. at 2 (E.D. Tex. July 11, 2017). *See also* *Diem LLC v. BigCommerce, Inc.*, No. 17-186,

decisions is that, on the one hand, the argument that *VE Holding Corp* incorrectly interpreted 28 U.S.C. § 1400(b) seemed squarely foreclosed in the Eastern District of Texas prior to *TC Heartland*.¹²⁵ On the other hand, immediately following the decision in *TC Heartland*, judges in the Eastern District of Texas issued rulings finding that the defense had been available to parties since *Fourco*.¹²⁶

Other district courts considered *TC Heartland* an intervening change in law by reasoning that the *VE Holding Corp* precedent foreclosed parties from credibly bringing the defense; further, these courts considered that the parties already engaged in litigation when *TC Heartland* was decided, “could not have reasonably anticipated this sea change, and so did not waive the defense of improper venue by omitting it from their initial pleading and motions.”¹²⁷

At the appellate level, in *In re Micron Tech.*, the Federal Circuit ruled that *TC Heartland* constituted an intervening change in law and that the improper venue defense presented therein was not available prior to the decision.¹²⁸ Prior to the Federal Circuit’s consideration, the district court reasoned that the *TC Heartland* decision did not result in an intervening change in law that would provide grounds for waiving the defendant’s failure to raise an improper venue defense in their initial responsive pleading.¹²⁹ The Federal Circuit disagreed and reversed the district Court after determining that “[the *TC Heartland* decision] made available to Micron in this case the objection that it does not come within the meaning of “resides” for purposes of venue under § 1400(b). That position was not available for the district court . . . because controlling precedent precluded adoption of the position.”¹³⁰ As a result, the Federal Circuit ultimately held that,

slip op. at *2 (E.D. Tex. July 6, 2017); *Tinnus Enters., LLC v. Telebrands Corp.*, No. 15-551, 2017 WL 3084268, at *1 (E.D. Tex. July 5, 2017); *Elbit Sys. Land & C4I Ltd. v. Hughes Network Sys., LLC*, No. 15-37, 2017 WL 2651618, at *20 (E.D. Tex. June 20, 2017).

¹²⁵ See, e.g., *Saint Lawrence Commc’ns. LLC v. HTC Corp.*, No. 15-919, 2016 WL 1077950, at *3 (E.D. Tex. Mar. 18, 2016) (“*VE Holding* continues to be controlling precedent which binds this Court”).

¹²⁶ *Elbit Sys. Land & C4I Ltd.*, LLC, No. 15-37, 2017 WL 2651618, at *20 (E.D. Tex. June 20, 2017).

¹²⁷ *Westech Aerosol Corp. v. 3M Co.*, No. C17-5067-RBL, 2017 WL 2671297, at *2 (W.D. Wash. June 21, 2017). See also *Smart Wearable Tech., Inc. v. Fitbit, Inc.*, No. 3:16CV00077, 2017 WL 3725630, at *4 (W.D. Va. Aug. 29, 2017); *Simpson Performance Prod., Inc. v. Mastercraft Safety, Inc.*, No. 5:16-CV-00155-RLV-DCK, 2017 WL 3620001, at *5, *7 (W.D.N.C. Aug. 22, 2017); *Maxchief Invs. Ltd. v. Plastic Dev. Grp., LLC*, No. 3:16-cv-63, 2017 WL 3479504, at *3–4 (E.D. Tenn. Aug. 14, 2017); *Cutsforth, Inc. v. LEMM Liquidating Co.*, No. 12-cv-1200 (SRN/LIB), 2017 WL 3381816, at *3–4 (D. Minn. Aug. 4, 2017); *OptoLum, Inc. v. Cree, Inc.*, No. CV-16-03828-PHX-DLR, 2017 WL 3130642, at *3–5 (D. Ariz. July 24, 2017).

¹²⁸ See *In re Micron Tech., Inc.*, 875 F.3d 1091, 1096-97 (Fed. Cir. 2017).

¹²⁹ *Id.* at 1094.

¹³⁰ *Id.* at 1099.

in light of the *TC Heartland* decision, *Micron* did not waive the improper venue defense under Fed. R. Civ. P. 12(h)(1)(A).¹³¹

In addition, the Federal Circuit further noted that a district court might deny a party's motion to transfer venue on grounds other than waiver under Fed. R. Civ. P. 12(h)(1)(A): "Rule 12(h)(1) is not the sole basis on which a district court might, in various circumstances, rule that a defendant can no longer present a venue defense that might have succeeded on the merits."¹³² According to the Federal Circuit, the "*Dietz* framework," which states that "a district court possesses inherent powers that are 'governed not by rule or statute but by the control necessarily vested in courts to manage their own affairs so as to achieve the orderly and expeditious disposition of cases,'"¹³³ vests discretionary powers in the district court to decline a venue transfer for other reasons such as equity and efficiency.¹³⁴

On the same day the Federal Circuit decided *Micron*, it remanded *In re Cutsforth* on procedural grounds.¹³⁵ In remanding *Cutsforth*, the Federal Circuit signaled that district courts should also evaluate the stage of the litigation, the likely prejudice to the parties resulting from a change in forum, and other equitable considerations before granting a motion to change venue in light of *TC Heartland's* intervening change in law.¹³⁶ Despite recognizing *TC Heartland* as an intervening change in law, the Federal Circuit effectively limited the economic effects of the decision by emphasizing that district courts can still decline to allow a transfer of venue for reasons other than Fed. R. Civ. P. 12(h)(1)(A).¹³⁷ By essentially discouraging decisions favoring a transfer of venue — for cases already in the later stages of litigation, or where venue transfer would result in unfair prejudice to a party — the Federal Circuit undercut *TC Heartland's* ability to impact cases filed before the decision.¹³⁸ Even if *TC Heartland* represented an intervening change in law that allow parties to raise previously waived improper venue defenses, the Federal Circuit's treatment of this issue in *Micron* and *Cutsforth* limits the immediate economic effects of the decision.¹³⁹

C. Data on the Economic Implications of *TC Heartland*

By examining the behavior of patent litigants following the *TC Heartland* decision, observers can gather insights about what effect the decision will likely

¹³¹ *Id.* at 1099-100.

¹³² *Id.* at 1100.

¹³³ *Dietz v. Bouldin, Inc.*, 136 S.Ct. 1885, 1891 (2016); *In re Micron*, 875 F.3d at 1100.

¹³⁴ *Micron*, 875 F.3d at 1101.

¹³⁵ *In re Cutsforth, Inc.*, No. 2017-135, 2017 WL 5907556, at *2 (Fed. Cir. Nov. 15, 2017).

¹³⁶ *Id.* at *1-*2.

¹³⁷ *Micron*, 875 F.3d at 1100.

¹³⁸ *Id.*

¹³⁹ *In re Cutsforth*, 2017 WL 5907556, at *2; *In re Micron*, 875 F.3d at 1100.

have on the value of patent rights as a whole.¹⁴⁰ The initial data about litigant forum selection following the *TC Heartland* decision suggests that the Court's interpretation of the venue statute will (1) decrease the overall number of suits; (2) decrease the number of suits by NPEs; and (3) force plaintiffs to sue in the districts where they are formed, domiciled, or where they have a large headquarters of operation.¹⁴¹

First, the data shows that the number of suits by NPEs filed in all districts across the country has decreased since the *TC Heartland* decision.¹⁴² Further, in the wake of *TC Heartland*, "the number of defendants sued by non-practicing entities for patent infringement fell to its lowest point since at least 2009."¹⁴³ Though the measured time period is relatively short, the impact is already evident and is cause for optimism about the future value of patent rights. Since damage awards for NPEs in 2016-2017 were on average 3.8 times larger than damages awards for practicing entities, the immediate decrease in NPE suits suggests that total average damage awards will likely fall following *TC Heartland*.¹⁴⁴

Next, the data suggests that the *TC Heartland* decision likely further facilitated the already falling costs of patent litigation.¹⁴⁵ The decision is likely

¹⁴⁰ The data in this Section is taken from RPX Corporation ("RPX"), a publicly traded company that specializes in helping clients avoid patent litigation through market intelligence. RPX Corp., *Company*, RPX CORP: ABOUT, <https://www.rpxcorp.com/about/> [<https://perma.cc/S4AU-YYGP>]. (last visited Feb. 2, 2019) [hereinafter RPX Corp. 5]. RPX provides a free search engine that allows visitors to gather information about the identities of litigants and the outcome of patent litigation. *Id.* In addition, RPX releases blog posts that consolidate and summarize quarterly patent litigation data. RPX Corp. 3, *supra* note 87.

¹⁴¹ RPX Corp., *As Expected, TC Heartland Decision Triggers Flurry of Venue Filings*, RPX BLOG (June 8, 2017), <https://www.rpxcorp.com/2017/06/08/as-expected-tc-heartland-decision-triggers-flurry-of-venue-filings/> [<http://perma.cc/2LYQ-XQ4D>] [hereinafter RPX Corp. 6]; RPX Corp. 3, *supra* note 87; RPX Corp. 5, *supra* note 140. *But see* Tom McParland, *So Much for 'TC Heartland' Effect. One Apple Store Enough to Support Venue, Judge Says*, LAW.COM (Aug. 10, 2017), <https://www.law.com/sites/almstaff/2017/08/10/judge-single-apple-store-makes-delaware-venue-proper-for-patent-litigation-against-tech-giant/> (finding that Apple had a "regular and established place of business" sufficient to support proper venue determination, based on defendant's one continually operating retail store in the district).

¹⁴² RPX Corp. 3, *supra* note 87 ("The third quarter saw just over 430 new defendants added to NPE lawsuits, a 17% decrease from the average of 520 in the first two quarters. This brings 2017 to a total of 1,470 defendants added by NPEs through the first three quarters, down just over 25% from the same period in 2016").

¹⁴³ RPX Corp., *Patent Litigation Drops After SCOTUS Venue Ruling*, RPX BLOG (Oct. 19, 2017), <https://www.rpxcorp.com/wp-content/uploads/sites/2/2017/10/patent-litigation-drops-after-scotus-venue-ruling.pdf> [<http://perma.cc/Q7XB-BEYW>] [hereinafter RPX Corp. 7].

¹⁴⁴ *See* Pricewaterhouse Coopers LLP, *2017 Patent Litigation Study* (May 2017), <https://www.pwc.com/us/en/forensic-services/publications/assets/2016-pwc-patent-litigation-study.pdf> [<http://perma.cc/BH6J-H8RQ>].

¹⁴⁵ *Id.* ("Despite Idenix mega-award, median damages down 40% relative to last year.").

to reduce litigation costs by lowering the number of cases filed by NPEs.¹⁴⁶ The falling number of total NPE suits will likely reduce aggregate litigation costs to some extent, because litigation against an NPE is on average significantly more expensive than litigation against an operating company.¹⁴⁷

The data also shows that the decision has reduced the number of suits brought by practicing entities as well.¹⁴⁸ Reducing the total number of suits by practicing entities will likely also reduce the aggregate costs of patent litigation in the United States, which in turn may increase the value of patent rights.¹⁴⁹

Additionally, the data suggests that the Eastern District of Texas is no longer the primary venue for NPE initiated patent suits. Prior to the *TC Heartland* decision, as much as 57% of NPEs filed their cases in the Eastern District of Texas, while 8% filed cases in the District of Delaware.¹⁵⁰ The Eastern District now accounts for 26% of cases filed by NPEs, compared to 29% in the District of Delaware.¹⁵¹ NPEs also increased their filings in the Northern District of Illinois to 9%, and Central District of California to 5%, signaling that NPEs are moving away from the Eastern District of Texas, albeit slowly.¹⁵²

Operating companies also appear to have shifted their venue preferences following the *TC Heartland* decision.¹⁵³ Prior to the decision, the most popular venue for operating companies was the District of Delaware, which accounted for 17% of total patent cases filed by operating companies compared to the Central District of California, which was second with 9% of total cases filed in that district.¹⁵⁴ After the decision, the initial data shows that the Central District of California is now the most popular venue, accounting for 16% of total patent cases filed by operating companies brought there, while the District of Delaware is now second with 9% of cases brought there.¹⁵⁵

¹⁴⁶ Malathi Nayak, *Cost of Patent Infringement Litigation Falling Sharply*, BLOOMBERG BNA (Aug. 10, 2017) [https://www.bna.com/cost-patent-infringement-n73014463011/\[http://perma.cc/QF4P-35NA\]](https://www.bna.com/cost-patent-infringement-n73014463011/[http://perma.cc/QF4P-35NA]) (“Median litigation costs in [cases brought by NPEs], involving risk over \$25 million fell 45 percent to \$3.3 million in 2017 from 2015, the survey says. Moreover, cases with risk less than \$25 million fell 39 percent to \$2 million in 2017 from 2015.”).

¹⁴⁷ *Id.* (finding that litigation against an NPE with \$1 million to \$10 million at stake costs \$2 million on average compared to \$1.7 million in average costs of litigating against an operating company.); RPX Corp. 1, *supra* note 3.

¹⁴⁸ RPX Corp. 3, *supra* note 87 (“For their part, operating company plaintiffs added 356 new defendants, down 15% from the average of 420 in the first two quarters of the year. Likewise, this brings 2017 to a total of 1,195 defendants added by operating companies through the first three quarters, down just over 24% from the prior year”).

¹⁴⁹ BESSEN & MEURER, *supra* note 16, at 17.

¹⁵⁰ RPX Corp. 2, *supra* note 31; *see also* Nazer, *supra* note 3.

¹⁵¹ RPX Corp. 3, *supra* note 87.

¹⁵² *Id.*

¹⁵³ RPX Corp. 2, *supra* note 31.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

To determine whether the *TC Heartland* decision will have a positive impact on the value of innovation, it is important to examine the particular characteristics of the forums that are the most popular following the decision.

III. ANALYSIS: *TC HEARTLAND* IS NOT A COMPLETE ANTIDOTE TO THE PROBLEM OF DECLINING PATENT VALUE

In the months following the *TC Heartland* decision, the most popular district for patent litigation has become the District of Delaware, accounting for 27.91% of all patent cases.¹⁵⁶ This rise in patent litigation in the District of Delaware is largely due to the more than fifty percent of all publicly traded companies and more than sixty-four percent of Fortune 500 companies are incorporated in Delaware — increasing the likelihood that potential plaintiffs can achieve proper venue there under *TC Heartland*.¹⁵⁷

The District of Delaware grants relatively few motions for summary judgment, sends the most patent cases to trial, and has one of the most crowded dockets in the country, and these aspects of the district may reduce the expected benefits of *TC Heartland*.¹⁵⁸ First, between 2000 and 2010, the District of Delaware recorded the highest percentage of patent trial cases with almost 12%, compared to the Eastern District of Texas's 8% and the national average's

¹⁵⁶ Owen Byrd, *Lex Machina Q4 2017 End of the Year Litigation Update*, LEX MACHINA (Jan. 16, 2018), <https://lexmachina.com/lex-machina-q4-litigation-update/> [<https://perma.cc/3FPD-5EKD>] (stating that the District of Delaware was the most popular patent litigation venue in the final two quarters of 2017); Fried Frank Harris Shriver & Jacobson LLP, *A Look at District Court Filing Trends 120 Days after TC Heartland*, LEXOLOGY (Oct. 11, 2017) <https://www.lexology.com/library/detail.aspx?g=bfe2b3ed-9e6c-4c0e-92c0-f63485fdc0e7> [<https://perma.cc/88NQ-V64B>] (stating that the District of Delaware heard 27.91% of all patent cases filed in the period between 5/22/17 - 9/19/17).

¹⁵⁷ See Christopher Wink, *64% of Fortune 500 firms are Delaware incorporations: here's why*, TECHNICAL.LY (Sept. 23, 2014) <https://technical.ly/delaware/2014/09/23/why-delaware-incorporation/> [<https://perma.cc/5LRB-A9WA>].

¹⁵⁸ Letter from 28 Law Professors & Economists, *supra* note 29 (stating that the District of Delaware and the Northern District of California “happen to be districts where it is considered much more difficult to enforce patent rights”); Love & Yoon, *supra* note 20, at 6 (stating that “We also observe that allegedly defendant-friendly jurisdictions such as the Northern District of California have characteristics that in many respects are quite similar [to the E.D. Tex.]”) (footnotes omitted). See also Timothy B. Lee, *Courts in Two States Are Tilting the Nation's Patent System Toward Plaintiffs*, WASH. POST (Sept. 19, 2013), https://www.washingtonpost.com/news/the-switch/wp/2013/09/19/courts-in-two-states-are-tilting-the-nations-patent-system-toward-plaintiffs/?utm_term=.97691550d958 [<https://perma.cc/FPT9-QRH4>] (stating a practicing patent attorney's proposition that “judges in Delaware are relatively slow to rule on summary judgment motions. That raises the cost of litigation for defendants, giving plaintiffs more leverage in settlement negotiations.”); Jonas Anderson, *supra* note 24, at 655 (“The district [of Delaware] achieves this high trial rate not through patent local rules, but rather through a norm shared by the district's judges to grant summary judgment motions rarely”).

2.8%.¹⁵⁹ Because litigants were significantly more likely to go trial in the District of Delaware prior to *TC Heartland*, patent litigation in the District of Delaware will likely be more expensive on average than other districts in the United States going forward.¹⁶⁰ Additionally, the District of Delaware, like the Eastern District of Texas, requires parties to submit briefs to request permission to file a motion for summary judgment¹⁶¹ and simultaneously has among the lowest percentages of summary judgment motions granted.¹⁶² Thus, Delaware's slow patent case turnaround rate, high trial rate, and low summary judgment win rates will continue to increase the average cost of patent litigation in the District of Delaware and thus threaten the current trend of average decreasing costs across patent litigation in the future.¹⁶³

Further, the District of Delaware seems only marginally less friendly to NPE suits than the Eastern District of Texas in terms of outcomes with “non-practicing entities’ Delaware patent suits end[ing] with loss or dismissal only 8% of the time, a scant difference from the 4% rate in Marshall.”¹⁶⁴ In the third quarter of 2017, “[t]he District of Delaware represented 28 percent of all defendants sued by NPEs in Q3, [up] from 13 percent in Q2,” indicating not only that the district’s popularity among NPEs is rapidly growing after *TC Heartland*¹⁶⁵ but also that this popularity is likely to continue to increase in the future.

While plaintiffs typically win larger awards in Delaware than do those in the Eastern District of Texas, they win less frequently than those in the Eastern District of Texas.¹⁶⁶ Additionally, Delaware has the busiest district court in the

¹⁵⁹ Mark A. Lemley, *Where to File Your Patent Case*, 38 AIPLA Q.J. 401, 411-13 (2010).

¹⁶⁰ RPX Corp. 1, *supra* note 3. Note that this trend is significant as patent cases that go to trial cost on average nearly \$3 million more dollars than those decided on summary judgment. *Id.* at 4.

¹⁶¹ Anderson, *supra* note 7, at 674-75 (“[The District’s] screening procedures include requiring parties to submit briefs to seek permission to file summary judgment motions and certified statements assuring the court that no material factual dispute exists”).

¹⁶² *Id.* at 655 (stating that “The district [of Delaware] achieves this high trial rate not through patent local rules, but rather through a norm shared by the district’s judges to grant summary judgment motions rarely”). See also Andrei Iancu & Jay Chung, *Real Reasons the Eastern District of Texas Draws Patent Cases - Beyond Lore and Anecdote*, 14 SMU SCI. & TECH. L. REV. 299, 316 (2011); Lee, *supra* note 167 (stating that “Judges in Delaware are relatively slow to rule on summary judgment motions. That raises the cost of litigation for defendants, giving plaintiffs more leverage in settlement negotiations”).

¹⁶³ See Anderson, *supra* note 6; see also RPX Corp. 1, *supra* note 3.

¹⁶⁴ Lauren H. Cohen, Umit G. Gurun, & Scott Duke Kominers, *Patent Trolling Isn’t Dead—It’s Just Moving to Delaware*, HARV. BUS. REV. (June 28, 2017), <https://hbr.org/2017/06/patent-trolling-isnt-dead-its-just-moving-to-delaware> [<https://perma.cc/Z6MF-NQ3B>].

¹⁶⁵ RPX Corp. 7, *supra* note 143.

¹⁶⁶ Chase Perry, *Stats on How TC Heartland is Affecting Patent Litigants*, LAW 360, (Nov. 3, 2017), <https://ankura.com/wp-content/uploads/2017/12/2017-11-28-Perry-Stats-On-How->

nation when measured by the ratio of judges to number of cases on the docket.¹⁶⁷ This fact will further increase the average length of patent litigation as the number of cases filed in Delaware continues to rise, thus reducing the anticipated cost saving effects of *TC Heartland*.¹⁶⁸

One possible cost reducing benefit of litigation shifting to Delaware, however, is that Delaware is among the easiest districts to win a motion to stay pending district court litigation due to co-pending litigation at the Patent Trial and Appeal Board.¹⁶⁹ Delaware granted 55% of motions to stay in 2015, likely because of its crowded docket.¹⁷⁰ By contrast, “motions to stay co-pending patent litigation in the Eastern District [were] the least successful in the entire nation,”¹⁷¹ with just under a 25% grant rate in 2015.¹⁷²

Like the Eastern District of Texas, however, the District of Delaware offers many NPE friendly and cost raising benefits.¹⁷³ Thus, while NPE’s and other potential plaintiffs may have lost the ability to cherry-pick favorable forums across the United States, they can find many of the same conditions in the District of Delaware that initially made the Eastern District of Texas such an attractive forum in the past — with many still having access to a forum where cases are likely to go to trial, juries are likely to rule for plaintiffs, and judges are reluctant to transfer venue or grant summary judgment.¹⁷⁴ Despite losing a substantial portion of its NPE suits following the decision, however, the Eastern District of Texas retained 26% of the total NPE case load and remains the second most popular forum for patent litigation with 15.04% of total patent suits filed there in the months following *TC Heartland*.¹⁷⁵ The Eastern District of Texas’s continued popularity signals that potential operating company plaintiffs and NPEs will continue to exploit the favorable aspects of the district for as long as they are able to do so.¹⁷⁶

TC-Heartland-Is-Affecting-Patent-Litigants.pdf [https://perma.cc/C3B4-CGKL] (finding that patent holder success rate in the Eastern District of Texas to be 54% and median damage award to be \$9,948,569, while in the District of Delaware the patent holder success rate is 41% but the median damages award is \$16,162,113).

¹⁶⁷ Cohen, Gurun, & Kominers, *supra* note 164.

¹⁶⁸ *Id.*

¹⁶⁹ Douglas B. Wentzel, *Stays Pending Inter Partes Review: Not in the Eastern District of Texas*, 98 J. PATENT & TRADEMARK OFF. SOC’Y 120, 120 (2016).

¹⁷⁰ *Id.*

¹⁷¹ *Id.* at 123.

¹⁷² Patent Litigation Research Database, *Motions to Stay District Court Cases Pending Post-Grant Proceedings*, DOCKET REPORT (Aug. 24, 2015), <http://docketreport.blogspot.com/2015/08/motions-to-stay-district-court-cases.html> [https://perma.cc/ZW46-2G3K].

¹⁷³ Anderson, *supra* note 7, at 655-56; Cohen, Gurun, & Kominers, *supra* note 164.

¹⁷⁴ See discussion *supra* Section IV.A.

¹⁷⁵ Fried Frank Harris Shriver & Jacobson LLP, *supra* note 156; RPX Corp. 3, *supra* note 87.

¹⁷⁶ RPX Corp. 3, *supra* note 87.

Therefore, when examining observed litigant behavior in the short term, it does not seem that the *TC Heartland* will have a large impact in reducing the overall cost of patent litigation because the District of Delaware shares many of the same cost raising characteristics as the Eastern District of Texas. Together, these two districts heard 42.95% of all patent cases in the months following *TC Heartland*, compared to 51.67% in the same period one year before the decision.¹⁷⁷ Accordingly, it seems that “patent trolling isn’t dead—it’s just moving to Delaware.”¹⁷⁸ Nevertheless, the moderate decline in NPE suits following the decision is cause for cautious optimism that the decision may have reduced some of the abusive NPE patent litigation practices throughout the country and as a result increased the value of patent rights.¹⁷⁹ Still, it seems unlikely from the data presently available that *TC Heartland* was the golden fix to patent trolling many hoped it would be as the economic benefits of the decision as a whole will likely be marginal.¹⁸⁰

IV. PATENT VENUE AFTER *TC HEARTLAND*: CAUSES FOR OPTIMISM AND THE WAY FORWARD

Although *TC Heartland* appears largely to have only have shifted NPEs preferred patent venue from Eastern Texas to Delaware, there are reasons to be optimistic about the future value of innovation.¹⁸¹

As a primary matter, the decision reduced both the total number of both NPE suits as well as patent suits writ large.¹⁸² The reduction in the total number of suits and suits by NPEs suggests that the decision likely helped curb some of the most egregious forum shopping behavior from the pre-*TC Heartland* era.¹⁸³ Further, this reduction in the total number of NPE suits may reduce the average cost of patent litigation by preventing some of the most expensive lawsuits on average.¹⁸⁴ Thus, to the extent that “[t]he increase in aggregate litigation cost is mainly driven by the increasing frequency of litigation,” *TC Heartland* may have a positive impact on the value of patents by reducing the total number of patent suits — and in particular, the number of suits that are typically the most expensive to litigate.¹⁸⁵ However, the limited benefits stemming from a decision thought to be “a panacea that puts patent trolls out of business,” raise the difficult

¹⁷⁷ Fried Frank Harris Shriver & Jacobson LLP, *supra* note 156.

¹⁷⁸ Cohen, Gurun, & Kominers, *supra* note 164.

¹⁷⁹ RPX Corp. 3, *supra* note 87.

¹⁸⁰ Cohen, Gurun, & Kominers, *supra* note 164.

¹⁸¹ See discussion *supra* Section II.A.

¹⁸² RPX Corp. 3, *supra* note 87.

¹⁸³ *Id.*

¹⁸⁴ See discussion *supra* Section II.A.

¹⁸⁵ BESSEN & MEURER, *supra* note 16, at 17.

question of what can be done to significantly improve patent value and reduce patent trolling?¹⁸⁶

First, parties should strive to continue to strengthen patentability requirements in order to prevent the issuance of patents that are “vag[ue] and [of] suspect validity” and thus may be used “primarily for obtaining licensing fees.”¹⁸⁷ The Federal Circuit and Supreme Court seem to be moving in this direction with their decisions limiting patentable subject matter,¹⁸⁸ particularly with regard to vague business methods and computer implementation patents,¹⁸⁹ and with strong non-obviousness,¹⁹⁰ utility,¹⁹¹ and written description requirements.¹⁹² Setting a high bar for patentability will help prevent NPEs from easily acquiring vague and possibly invalid patents that they intend to use as leverage to extract nuisance value settlements.¹⁹³

Second, increasing the notice function of patents will also increase the value of patent rights.¹⁹⁴ Vague and possibly invalid patents fail to provide potential infringers notice of the boundaries of the patentee’s property rights, which leads to “unavoidable risk of disputes and litigation,” and accordingly reduces the value of innovation.¹⁹⁵ According to Professors Michael J. Meurer and James Bessen, the decline in patent value is attributable primarily to lack of notice of patent boundaries stemming from “poor” quality patents.¹⁹⁶ As a result, they suggest several possible ways to simultaneously increase patent value and discourage “patent trolling” through better patent notice.¹⁹⁷ For instance, they suggest including “strong limits on patent ‘continuations,’ a procedure used to keep patent claims hidden from the public for extended periods . . . enforcing strong limits against vague or overly abstract claims,” and incorporating a “robust ‘indefiniteness’ standard that invalidates patent claims.”¹⁹⁸ They argue

¹⁸⁶ Press Release, Congressman Jerrold Nadler, Congressman Nadler Statement in Hearing on Supreme Court Decision in *TC Heartland v. Kraft Foods Group Brands* (June 13, 2017), <https://nadler.house.gov/press-release/congressman-nadler-statement-hearing-supreme-court-decision-tc-heartland-v-kraft-foods> [<https://perma.cc/2Q4J-M2UR>].

¹⁸⁷ *See eBay v. MercExch. L.L.C.*, 547 U.S. 388, 396-97 (2006) (Kennedy J., concurring).

¹⁸⁸ *See generally* *Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 134 S. Ct. 2347 (2014). *See also* BESSEN & MEURER, *supra* note 16, at 25.

¹⁸⁹ *See* sources cited *supra* note 188.

¹⁹⁰ *See, e.g.*, *Apple v. Samsung*, 839 F.3d 1034 (Fed. Cir. 2016); BESSEN & MEURER, *supra* note 16, at 25.

¹⁹¹ *See, e.g.*, *In re Fisher*, 421 F.3d 1365 (Fed. Cir. 2005); BESSEN & MEURER, *supra* note 16, at 25.

¹⁹² *See generally* *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336 (Fed. Cir. 2010). *See also* BESSEN & MEURER, *supra* note 16, at 25.

¹⁹³ BESSEN & MEURER, *supra* note 16, at 3.

¹⁹⁴ *Id.* at 9.

¹⁹⁵ *Id.*

¹⁹⁶ *Id.* at 9, 18-19.

¹⁹⁷ *Id.* at 25-26.

¹⁹⁸ *Id.*

reforms should be implemented to “limit overly abstract patents in software and other technologies,” and recommend making a “patent search feasible by reducing the flood of patents.”¹⁹⁹

One of the major factors limiting the economic impact of the *TC Heartland* decision was the effect of different patent local rules in district courts across the United States.²⁰⁰ As long as some districts have local rules that are conducive to NPE forum-shopping practices and rules that invite patent litigation more generally, district courts will retain some power over reducing the impact of decisions like *TC Heartland*.²⁰¹ Brian J. Love and James Yoon have argued that by using local rules of patent procedure, “judges in the Eastern District of Texas have generally ruled in ways that have minimized the effect of patent reform measures passed by Congress and changes in the law articulated by higher courts.”²⁰² Accordingly, a solution to the declining patent value problem would be to institute a set of Federal Rules of Patent Procedure that governed procedure in all patent actions throughout the United States.²⁰³ As Yan Leychkis explained, an ideal set of federal rules would “specify the maximum lengths of time allowed for different phases of patent litigation such as discovery and claim construction, identify special circumstances in which extensions of time would be warranted, and delineate those procedural areas most amenable to local rulemaking.”²⁰⁴ Federal rules aimed at efficient and effective resolution of patent disputes would ensure prompt and just resolutions to patent suits, thereby reducing parties’ incentive to forum shop and reducing the average costs of patent litigation overall.²⁰⁵ Such rules would also limit district courts’ ability to reduce the impact of Supreme Court patent decisions like *TC Heartland* and would further increase uniformity in patent adjudication across the United States.²⁰⁶

Ultimately, some combination of stronger patentability requirements, improved notice of patent rights boundaries, and a new set of national procedural rules will likely prove to be the most effective solution to the declining patent value problem.

CONCLUSION

In May 2017 the Supreme Court decided *TC Heartland* and attempted to reduce forum shopping in patent litigation with the aim of increasing the value of innovation.²⁰⁷ The Federal Circuit quickly followed this decision with

¹⁹⁹ *Id.*

²⁰⁰ Love & Yoon, *supra* note 20, at 5.

²⁰¹ *Id.*

²⁰² *Id.* at 25-26.

²⁰³ Megan M. La Belle, *The Local Rules Of Patent Procedure*, 47 ARIZ. ST. L. J. 63, 109 (2015); Leychkis, *supra* note 72, at 226.

²⁰⁴ Leychkis, *supra* note 72, at 226.

²⁰⁵ *Id.*

²⁰⁶ La Belle, *supra* note 203, at 110.

²⁰⁷ *TC Heartland LLC v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514, 1515 (2017).

opinions that retained the narrow interpretation of patent venue law articulated in *TC Heartland*.²⁰⁸ It remains to be seen whether interpretations of a “regular and established place of business” will affect the impact of the decision in the long-term.²⁰⁹

Ultimately, the decision was beneficial to innovation in some aspects and harmful in others. The *TC Heartland* decision immediately diminished the number of NPE suits filed in the Eastern District of Texas, as well as the total number of patent suits by NPEs and operating companies throughout the country.²¹⁰ However, many NPEs seem to have shifted their strategy to filing suit in the District of Delaware.²¹¹ As long as the District of Delaware continues to send a large number of cases to trial, grant small numbers of summary judgment motions, and award significantly higher than national average damage awards, NPEs will likely continue to employ their pre-*TC Heartland* strategies in a new locale.²¹²

The answer to the problem of declining patent values lies in a multifaceted and comprehensive approach to increasing patent quality, increasing notice of patent rights,²¹³ and creating a set of Federal Rules of Patent Procedure.²¹⁴ These solutions, taken together, should ensure efficient, intelligent, and uniform adjudication of patent cases. Ultimately, increasing the value of patent rights is essential to promoting innovation for the benefit of humanity and maintaining the utilitarian bargain that underlies United States patent law.

²⁰⁸ *In re Micron Tech., Inc.*, 875 F.3d 1091, 1096 (Fed. Cir. 2017); *In re Cray*, 871 F.3d 1355, 1360 (Fed. Cir. 2017).

²⁰⁹ 28 U.S.C. § 1400(b); Pepe & Brenner, *supra* note 35, at 676.

²¹⁰ RPX Corp. 4, *supra* note 87.

²¹¹ Cohen, Gurun, & Kominers, *supra* note 164; RPX Corp. 4, *supra* note 87.

²¹² Cohen, Gurun, & Kominers, *supra* note 164.

²¹³ BESSEN & MEURER, *supra* note 16, at 25-26.

²¹⁴ La Belle, *supra* note 203, at 68; Leychkis, *supra* note 72, at 226.