

THE EVOLUTION OF PATENT VENUE IN THE AFTERMATH OF *TC HEARTLAND*

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I. INTRODUCTION

Where can a patent owner sue an infringer? If one were looking at where patentees actually brought their suits in the past decade, one might believe that the towns of Tyler and Marshall, Texas, centered in the Eastern District of Texas, held a special role in patent disputes. From the late 2000s to the beginning of 2017, the Eastern District of Texas took the lion's share of patent infringement suits, with plaintiffs filing a plurality of new cases in the district. This dominance ultimately peaked at a staggering height of approximately 50% of all patent infringement suits in 2015.¹ The patent community widely regards this district as pro-patentee, and plaintiffs made full use of flexible venue standards to sue there.²

The Federal Circuit's interpretation of the word "resides" in the patent-specific venue statute enabled forum shopping in infringement cases. The specialized venue statute, 28 U.S.C. § 1400(b), dictates where venue is appropriate in patent disputes, and it states that plaintiffs can bring an infringement suit against defendants where the defendant resides or where they have a regular and established place of business and commit acts of infringement.³ For corporations, "resides" in § 1400(b) originally referred to the state of incorporation. However, the Federal Circuit later adopted the definition from the general venue statute, § 1391,⁴ allowing plaintiffs to bring suit in any district where the defendant infringed and where they were subject

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1. *See infra* Section II.C (quantifying the rise of the Eastern District of Texas as the preferred district for patentee-plaintiffs).

2. The preference of plaintiffs for the district is discussed in further detail in Section II.C, but mostly arises from favorable procedural rules, preferences for trial over summary judgment, friendly juries, and high damages awards. *See id.*

3. 28 U.S.C. § 1400(b) (2012); *see also* *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17 (2017).

4. *See* *VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574, 1575–76 (Fed. Cir. 1990). In the general venue statute, § 1391, corporate residence is defined as any district in which they are subject to the person jurisdiction of the court. 28 U.S.C. § 1391(c)(2) (2012).

to the personal jurisdiction of the court.⁵ For large companies shipping or selling products nationwide, this functionally enabled patentees to sue in nearly any district,⁶ leading to a sharp increase in forum shopping and the rise of the Eastern District of Texas.

The vastly disproportionate number of patent cases in the Eastern District of Texas continued until 2017, when the Supreme Court revisited patent venue in *TC Heartland LLC v. Kraft Foods Group Brands LLC*.⁷ This decision rewound the clock on venue, substantially tightening the options available for plaintiffs and dramatically changing the landscape of patent litigation.

This Note will primarily focus on the aftermath of *TC Heartland* and will assess the impact of the decision through approximately a year and a half later⁸ and how subsequent Federal Circuit decisions have further affected patent venue. This Note will apply quantitative analysis to determine how the decision affected cases that were concurrent with the decision (assessed by motions to transfer or dismiss) and how it affected new litigation (evaluated by where plaintiffs file cases). These data show that *TC Heartland* spurred changes in behavior for both defendants and plaintiffs, with an immense increase in motions concerning improper venue and a dramatic reshuffling of preferred districts for infringement suits.

Part II of this Note will discuss how courts determined and assessed proper venue before *TC Heartland*. This Part will look at the relevant statutes, how they have changed over time, and how courts have interpreted them. This Part will also quantitatively document the rise of forum shopping in patent infringement suits from 2009 to immediately before *TC Heartland* in 2017. Part III will discuss and summarize the procedural history and holding of *TC Heartland*. Part IV will investigate the aftermath of the Court's decision. This Part will include summaries of follow-on Federal Circuit cases, as well as quantitative assessments of how *TC Heartland* affected defendants and plaintiffs. Part V will offer overarching thoughts on trends in patent venue, their effects on litigants, and projections for the future.

5. See *TC Heartland*, 137 S. Ct. at 1517.

6. Shipping or selling products in a given district likely satisfies the “minimum contacts” required for personal jurisdiction. See generally *Int'l Shoe Co. v. Washington*, 326 U.S. 310, 316–21 (1945) (finding that a company employing salesmen in Washington made it subject to the personal jurisdiction of the court there); Megan M. La Belle, *Patent Litigation, Personal Jurisdiction, and the Public Good*, 18 GEO. MASON L. REV. 43, 62–71 (2010) (discussing personal jurisdiction in relation to patent cases).

7. See *TC Heartland*, 137 S. Ct. at 1517.

8. The precise endpoint for the analysis of this Note is December 31, 2018, while the Supreme Court decided *TC Heartland* on May 22, 2017.

II. BACKGROUND ON PATENT VENUE

A. STATUTES COVERING PATENT VENUE

Two statutes have historically governed venue in patent infringement cases—the patent-specific venue statute 28 U.S.C. § 1400(b) and the general venue statute 28 U.S.C. § 1391. The central question in *TC Heartland* was whether these two statutes interact with one another and whether the language in the general venue statute dictated the meaning of the specialized statute.⁹

1. § 1391—*The General Venue Statute*

In general, the venue statute 28 U.S.C. § 1391(b) governs where plaintiffs can and cannot bring federal civil suits.¹⁰ According to this statute, “[a] civil action may be brought” either (1) where the “defendant resides,” (2) where “a substantial part of the events or omissions giving rise to the claim occurred,” or (3) “if there is no district in which an action may otherwise be brought as provided in this section [§ 1391(b)], any judicial district in which any defendant is subject to the court’s personal jurisdiction with respect to such action.”¹¹ A definition for “resides” from § 1391(b)(1), concerning non-person entities (e.g., corporations), is given in § 1391(c)(2). This definition, added in 1988, states that such an entity “shall be deemed to reside . . . [if] such defendant is subject to the court’s personal jurisdiction.”¹² While § 1391 covers venue in litigation generally, Congress has created numerous specialized venue statutes that may or may not supersede § 1391(b).¹³ While special venue statutes can complement and co-exist with the general venue statute, Congress highlighted the possibility that § 1391 does not affect certain specialized statutes by amending § 1391 in 2011 to state that it applies “[e]xcept as otherwise provided by law.”¹⁴

2. § 1400(b)—*The Patent-Specific Venue Statute*

One of these specialized venue statutes is 28 U.S.C. § 1400(b), which governs venue for patent infringement.¹⁵ This patent-specific venue statute states that “[a]ny civil action for patent infringement may be brought in the

9. *See infra* Section III.

10. *See* 28 U.S.C. § 1391 (2012).

11. *Id.* at § 1391(b).

12. *Id.* at § 1391(c)(2).

13. While Congress has generated hundreds of specialized statutes, they have typically left it for the courts to decide whether specific specialized statutes and § 1391 are mutually exclusive. *See* 14D CHARLES ALAN WRIGHT & ARTHUR R. MILLER, FEDERAL PRACTICE AND PROCEDURE § 3803 (4th ed. 2018).

14. *Id.*; 28 U.S.C. § 1391(a) (2012). Congress made this change to § 1391 as part of the 2011 Jurisdiction and Venue Clarification Act. Federal Courts Jurisdiction and Venue Clarification Act of 2011, Pub. L. No. 112-63, § 201, 125 Stat. 758, 762–63 (2011).

15. 28 U.S.C. § 1400(b) (2012).

judicial district where [1] the defendant resides, *or* [2] where the defendant has committed acts of infringement and has a regular and established place of business.”¹⁶ This statute has its roots in an act from 1897, which sought to eliminate uncertainty for where plaintiffs could bring patent suits, and limited venue in infringement cases to either the district where the defendant was “an inhabitant” or where they had infringed and had a regular and established place of business.¹⁷ At that point, courts interpreted domestic corporations as inhabiting their state of incorporation.¹⁸ In 1948, Congress recodified the Judicial Code, creating 28 U.S.C. § 1400(b).¹⁹ Among revisions to the language of the Statute, Congress changed appropriate venue from where “the defendant is an inhabitant” to “where the defendant resides.”²⁰ The specific question the Court addressed in *TC Heartland* was whether the later 1988 amendment to § 1391 informs the definition of “resides” in § 1400(b).²¹

B. PRE-*TC HEARTLAND* CASES CONCERNING THE INTERACTION BETWEEN § 1391 AND § 1400(B)

Before *TC Heartland*, and even before the statutes’ recodification in 1948, courts addressed the question of whether § 1391 and § 1400 exist independently, or whether they modify each other. First, in the 1942 *Stonite Products Co. v. Melvin Lloyd Co.* decision, the Supreme Court held that the specialized patent statute “was the sole provision governing the venue of patent infringement litigation” and was not affected by “general provisions relating to the venue of civil suits.”²² Later, in 1957 (nine years after the patent-specific venue statute was revised and recodified as § 1400(b)), the Supreme Court in *Fourco v. Transmirra* once again held that the patent-specific venue statute was the exclusive provision in patent cases.²³ In affirming *Stonite*, the Court held that recodification had not affected the independence of the patent-specific statute. The Court further held that even though the 1948

16. *Id.* (emphasis added).

17. Act of Mar. 3, 1897, ch. 395, 29 Stat. 695 (1897) (stating that jurisdiction is appropriate in patent infringement cases “in the district of which the defendant is an inhabitant, or in any district in which the defendant . . . shall have committed acts of infringement and have a regular and established place of business”).

18. *See Fourco v. Transmirra*, 353 U.S. 222, 226–27 (1957).

19. *Id.*

20. *Id.*; 28 U.S.C. § 1400(b) (2012).

21. *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17 (2017). Applying the definition of domestic corporate residence to § 1400(b) would mean that patent infringement suits could be brought in any place the domestic corporation is subject to the personal jurisdiction of the district (and thus deemed to “reside” there for § 1391(c)(2)). *See id.*

22. *Stonite Prods. Co. v. Melvin Lloyd Co.*, 315 U.S. 561, 565–66 (“Congress did not intend the Act of 1897 to dovetail with the general provisions relating to the venue of civil suits, but rather that it alone should control venue in patent infringement proceedings.”).

23. *See Fourco*, 353 U.S. at 222–26.

recodification replaced the phrase “inhabits” with “resides,” Congress meant no substantive change to § 1400(b) and that both terms are synonymous and refer to domicile, which, for domestic corporations, meant only the state of incorporation.²⁴

Following Congress’s 1988 amendment to § 1391 (adding an explicit definition for corporate residence), the exclusivity of § 1400(b) came into question again.²⁵ The Federal Circuit addressed this issue in 1990 in *VE Holding Corp. v. Johnson Gas Appliance Co.*²⁶ Ultimately, the Federal Circuit abandoned the exclusivity of the patent-specific venue statute, holding that “Congress by its 1988 amendment of 28 U.S.C. § 1391(c) meant what it said; the meaning of the term ‘resides’ in § 1400(b) has changed.”²⁷ With this decision, the panel eliminated the narrow definition of “resides” and adopted the more expansive definition from § 1391(c).²⁸ As a consequence, plaintiffs could now bring patent infringement suits against domestic corporations in *any* jurisdiction which the corporation was subject to the personal jurisdiction of the court.²⁹

C. THE RISE OF FORUM SHOPPING AND THE EASTERN DISTRICT OF TEXAS

In light of the Federal Circuit’s decision in *VE Holding*, patentees had immense flexibility in where they could sue. Among the districts that patentees favored, the Eastern District of Texas rose to the top. The characteristics of the district itself lend no hints as to its popularity in patent suits. The largest city in the district, Tyler, has approximately 100,000 residents, and the city’s metropolitan area has a GDP of \$14,410 million—compared to \$535,499 million for the nearby Dallas-Fort Worth-Arlington area.³⁰ Furthermore, the district comprises no major technology centers, and in 1990 only had a single patent infringement case.³¹ And yet, by 2006, the district had the second

24. *See id.* at 226 (citing *Shaw v. Quincy Mining Co.*, 145 U.S. 444 (1892)).

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

26. *See id.*

27. *Id.* at 1575.

28. *Id.*

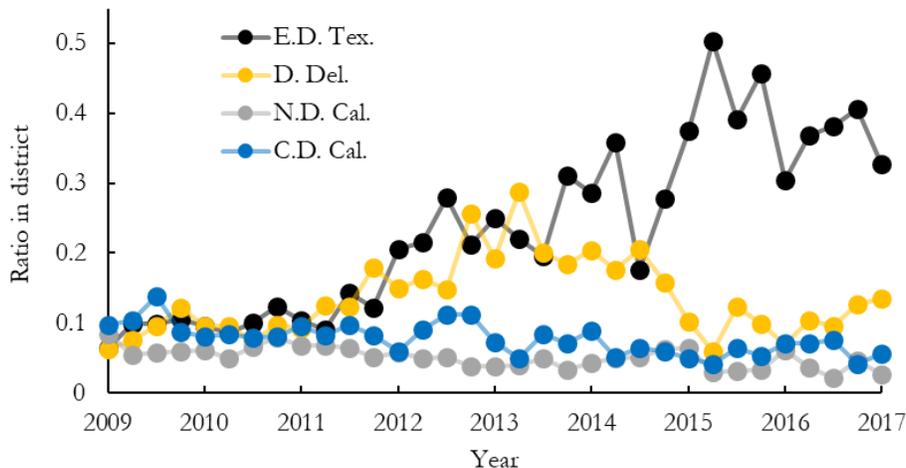
29. *See VE Holding Corp.*, 917 F.2d at 1583 (stating that now “venue in a patent infringement case includes any district where there would be personal jurisdiction over the corporate defendant at the time the action is commenced”).

30. *QuickFacts: Tyler, Texas*, U.S. CENSUS BUREAU (2018), <https://www.census.gov/quickfacts/tylercittyexas> [<https://perma.cc/8HRM-AN26>] (listing a population estimate of 104,991); Bureau of Economic Analysis, *Gross Domestic Product by Metropolitan Area, 2017*, U.S. DEP’T COM. (2018), https://www.bea.gov/system/files/2018-09/gdp_metro0918_0.pdf [<https://perma.cc/JQ35-ZV85>].

31. 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, 30–31 (2010).

highest number of patent cases in the nation.³² Then, beginning in late 2011, the respective share of cases going to the Eastern District of Texas and the District of Delaware began to increase (Figure 1). However, filings in Delaware began to plateau in 2013 and decreased later in 2014. At the same time, the Eastern District of Texas continued taking more and more patent cases (Figure 1).

Figure 1. The landscape of patent venue pre-*TC Heartland*; proportion of patent cases by district from Q1 2009 to Q1 2017.³³



The dominance of the Eastern District of Texas reached its peak in Q2 2015 when plaintiffs filed approximately 50% of all new patent cases in the district. Comparatively, for the same quarter, the next four most popular districts only featured 6%, 5%, 3%, and 3% of patent cases.³⁴ While the proportion of patent cases in the Eastern District of Texas plateaued and

32. 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. 193, 204 (2007); see also Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. REV. 889, 903 (2001) (listing the top patent litigation districts for 1995–1999).

33. The data presented in Figure 1 show the ratios of new patent cases filed in the Eastern District of Texas, the District of Delaware, and the Northern and Central Districts of California for each quarter from Q1 2009 through Q1 2017. These data were obtained using Lex Machina, with the tag for “Patent” for “Case Types,” and the ratios for each district were obtained by dividing the number of patent cases filed in the district by the total number of patent cases filed the same quarter.

34. These numbers are for the District of Delaware, District of New Jersey, Central District of California, and Northern District of California, respectively. These data were obtained using the same methodology as those in Figure 1, limited to Q2 of 2015. While the District of New Jersey is a frequent venue for patent infringement suits, overall filing trends do not place it in the top four, and thus the district is not displayed in Figure 1 for clarity.

began to moderately decline after this peak (with approximately 33% of patent cases in Q1 of 2017), the district continued to feature a plurality of all patent cases (Figure 1).³⁵

High-volume litigants particularly favored the Eastern District of Texas.³⁶ These plaintiffs represent frequent players in patent litigation, and thus, analyzing trends for high-volume litigants likely sheds light on the behavior of so-called “patent trolls,” who often bring numerous cases in any given year.³⁷ Patent trolls³⁸ can be broadly defined as “any party that attempts to enforce a patent far beyond its actual value or contribution to the prior art.”³⁹ Given their controversial practices, they have received substantial media, academic, and political attention for perceived abuse of the patent system.⁴⁰ As with patent cases in general, suits involving high-volume plaintiffs (and thus likely patent trolls) shifted towards the Eastern District of Texas. However, its popularity reached even higher levels, with the district capturing 75% of all patent cases that high-volume plaintiffs brought in Q2 2015 (Figure 2).

35. The decrease in patent cases in the Eastern District of Texas before *TC Heartland* is discussed in greater detail below in Sections IV.B and IV.C. See *infra* Sections IV.B and IV.C.

36. This Note will use Lex Machina’s definition of “high-volume plaintiff,” which is defined as “an entity that has filed 10 or more cases within a 365 day span.” Owen Byrd, *Patent Litigation Trends in the Three Months after T.C. Heartland*, LEX MACHINA BLOG (Oct. 18, 2017), <https://lexmachina.com/patent-litigation-trends-in-the-three-months-after-t-c-heartland/> [<https://perma.cc/8EGF-M7ZY>].

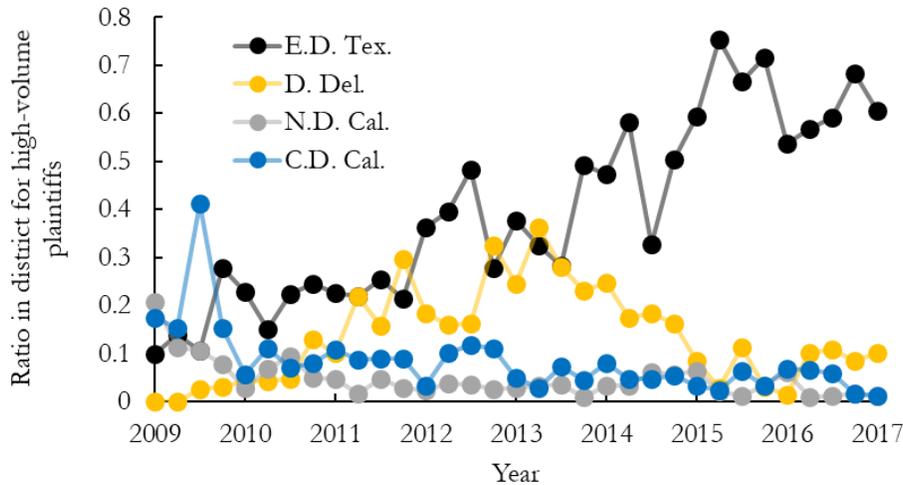
37. While some high-volume litigants are large companies with expansive patent portfolios, Brian Howard, a legal data scientist from Lex Machina, stated in an interview that he would consider a “majority” of high-volume plaintiffs to be patent trolls. Jessica Karmasek, *Study: Patent Law Changes, High-Volume Plaintiffs Make for More Litigation*, WASH. EXAMINER (Aug. 25, 2014), <https://www.washingtonexaminer.com/study-patent-law-changes-high-volume-plaintiffs-make-for-more-litigation> [<https://perma.cc/5684-CAGF>].

38. It should be noted that while the term “patent troll” can be viewed as a pejorative, this Note uses the term because of its prominence in current vernacular and discussions. This Note refrains from making any judgments about the merits of such entities or their practices.

39. Dennis Crouch, *Chief Judge Rader: Improving Patent Litigation*, PATENTLYO (Sept. 27, 2011), <https://patentlyo.com/patent/2011/09/rader-patent-litigation.html> [<https://perma.cc/N9NE-C2S4>] (quoting Chief Judge Rader).

40. For a more in-depth discussion and analysis of patent trolls and the Eastern District of Texas, see generally Jesus Efren Cano, *The Road to Marshall: Of Venue, Trolls, and the Eastern District of Texas*, 17 CHI.-KENT J. INTELL. PROP. 137 (2018).

Figure 2. Proportion of patent cases by district for high-volume plaintiffs from Q1 2009 to Q1 2017.⁴¹



The explosion of patent cases in the Eastern District of Texas occurred as plaintiffs sought to take advantage of favorable conditions, rules, and procedures. Particular factors that enticed plaintiffs to the district have included judges well-versed in patent law and procedural rules that create faster and cheaper trials.⁴² Indeed, the speed at which patent trials proceeded in the district has earned it the moniker “rocket docket,” which can potentially pressure defendants to quickly settle.⁴³ Furthermore, the district’s preference for trials over summary judgment, as well as substantial damage awards from plaintiff-friendly juries, have further served to bring patentees to courts in the district.⁴⁴

41. The data presented in Figure 2 were obtained using the same method as in Figure 1 but with the “High-Volume Plaintiff” for “Case Tags.” See *supra* note 33. The only difference between Figure 1 and Figure 2 is that Figure 2 filters the data to display only cases brought by high-volume plaintiffs.

42. See Leychikis, *supra* note 32, at 206 (“There are three key factors that make Marshall such an attractive forum: 1) knowledgeable judges experienced in patent cases; 2) special patent rules that compel open discovery with tight deadlines to which the judges strictly adhere, resulting in quick and relatively inexpensive trials; and 3) plaintiff-friendly juries.”).

43. Daniel Nazer & Vera Ranieri, *Why Do Patent Trolls Go to Texas? It’s Not for the BBQ*, EFF DEEPLINKS BLOG (July 9, 2014), <https://www.eff.org/deeplinks/2014/07/why-do-patent-trolls-go-texas-its-not-bbq> [<https://perma.cc/36TY-FDBE>] (“Partly, the district’s relatively rapid litigation timetable can put pressure on defendants to settle.”).

44. See Daniel Klerman & Greg Reilly, *Forum Selling*, 89 S. CAL. L. REV. 241, 250–70 (2016). Klerman and Reilly argue that “the Eastern District [has] consciously sought to attract patentees and [has] done so by departing from mainstream doctrine in a variety of procedural areas in a pro-patentee (pro-plaintiff) way.” *Id.* at 250. These authors enumerate eight specific

III. THE CASE: *TC HEARTLAND*

The widespread practice of forum shopping in patent disputes ultimately led to the Supreme Court's decision in *TC Heartland*. In the decision, the Court revisited whether or not § 1400(b) was the exclusive statute for venue in patent cases, or whether the Federal Circuit's interpretation in *VE Holding*—that § 1391(c) defined “resides” in § 1400(b)—was correct.⁴⁵

A. PROCEDURAL HISTORY

In early 2014, Kraft Foods Group Brands LLC (“Kraft”) filed a complaint against TC Heartland LLC (“Heartland”) in the District of Delaware.⁴⁶ Kraft alleged that Heartland infringed their patents relating to liquid water enhancer products.⁴⁷ Heartland, incorporated and based in Indiana, had no physical presence in Delaware.⁴⁸ However, Kraft alleged that Heartland “sold and offered for sale products that infringe Kraft’s patents in [Delaware].”⁴⁹ Heartland motioned to transfer venue to the Southern District of Indiana; however, the district court denied the motion, citing *VE Holding* and stating that “venue is appropriate for a defendant in a patent infringement case where personal jurisdiction exists.”⁵⁰ Heartland thus petitioned the Federal Circuit for a writ of mandamus.⁵¹

The Federal Circuit denied Heartland's petition.⁵² The Federal Circuit rejected Heartland's argument that the 2011 amendment to § 1391 affected statutory law, stating “Heartland has presented no evidence which supports its view that Congress intended to codify *Fourco* in its 2011 amendments.”⁵³ Thus,

factors that add to the attractiveness of the district for patentee plaintiffs. These include: (1) hostility to summary judgement, (2) judge shopping, (3) loose interpretation of joinder rules, (4) pro-plaintiff management of multi-defendant cases, (5) hostility to transfer, (6) refusing to stay pending reexamination, (7) the “Rocket Docket” (the term for the quick case schedules of the district), and (8) expanded and expedited discovery. *Id.* at 251–70.

45. See *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17 (2017). The focus of this Note is on patent venue post-*TC Heartland*; for a more comprehensive case note on the decision itself, see Melissa Wee, *TC Heartland v. Kraft and the Resurrection of the Place of Incorporation or “Regular and Established Place of Business” Test for Patent Venue*, 33 BERKELEY TECH. L.J. 981 (2018).

46. Complaint at 1–5, *Kraft Foods Group Brands LLC v. TC Heartland, LLC*, 2015 U.S. Dist. LEXIS 127972 (D. Del. 2015) (No. 1:14-cv-00028).

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

48. *Id.*

49. Complaint at 2, *Kraft Foods*, 2015 U.S. Dist. LEXIS 127972 (No. 1:14-cv-00028).

50. *Kraft Foods*, 2015 U.S. Dist. LEXIS 127972, at *4–5.

51. *In re TC Heartland*, 821 F.3d at 1340 (Fed. Cir. 2016).

52. *Id.*

53. *Id.* at 1343. With respect to changes to the language of § 1391(c), the Federal Circuit stated:

the panel upheld *VE Holding*, maintaining the dependence of § 1400(b) on § 1391. As such, venue was proper “because [as] petitioner resided in Delaware under § 1391(c), it also resided there under § 1400(b).”⁵⁴ In response, Heartland filed a petition for writ of certiorari, which the Court granted in late 2016.⁵⁵

B. THE OPINION—REAFFIRMING *FOURCO*

Justice Thomas delivered the unanimous 8–0 opinion, with the Supreme Court reversing and remanding, finding that the 1988 amendments to § 1391 did not affect the exclusivity of § 1400(b).⁵⁶ In determining whether or not the “broader definition of corporate ‘residence’ contained in the general venue statute” applied to § 1400(b), the Court assessed the history of Congressional amendments to § 1391.⁵⁷ Specifically, the Court looked for whether Congress intended to change the meaning of “resides” in § 1400(b), which the Court had previously interpreted as state of incorporation in *Fourco*.⁵⁸

In addressing this question, the Court noted that “[w]hen Congress intends to effect a change of that kind, it ordinarily provides a relatively clear indication of its intent in the text of the amended provision.”⁵⁹ The Court failed to find such intent, holding that § 1391 itself did not contain evidence that Congress intended to alter § 1400(b).⁶⁰ The Court additionally noted that the 2011 amendment to § 1391 (adding the clause that § 1391 only applies when not “otherwise provided by law”) further weakened the argument that § 1391 modified § 1400(b).⁶¹ In acknowledging the impact of the 2011 amendment,

The 2011 amendments to the general venue statute relevant to this appeal were minor. The language preceding the definition of corporate residence in § 1391 was changed from “for the purposes of venue under this chapter . . .” to “For all venue purposes . . .” . . . This is a broadening of the applicability of the definition of corporate residence, not a narrowing. This change in no manner supports Heartland’s arguments.

Id. at 1341. With respect to changes to § 1391(a), which added the language “[e]xcept as otherwise provided by law,” the Federal Circuit stated “[i]t is undisputed that the patent venue statute itself does not define corporate residence and thus there is no statutory ‘law’ that would satisfy Heartland’s claim that Congress intended in 2011 to render § 1391(c)’s definition of corporate residence inapplicable to venue for patent cases.” *Id.* at 1342.

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

55. *TC Heartland LLC v. Kraft Foods Grps. Brands LLC*, 2016 U.S. LEXIS 7572 (2016) (granting Heartland’s petition for writ of certiorari).

56. *TC Heartland LLC*, 137 S. Ct. at 1514–15 (2017). Justice Gorsuch did not participate in the decision. *Id.* at 1514.

57. *See id.* at 1516–20.

58. *See id.* at 1520.

59. *Id.* (citing *United States v. Madigan*, 300 U.S. 500, 506 (1937)).

60. *Id.* (“The current version of § 1391 does not contain any indication that Congress intended to alter the meaning of § 1400(b) as interpreted in *Fourco*.”).

61. *Id.* at 1521.

the Court stated that “*Fourco*’s holding rests on even firmer footing now that § 1391’s saving clause expressly contemplates that certain venue statutes may retain definitions of ‘resides’ that conflict with [§ 1391’s] default definition.”⁶² Ultimately, the Court reaffirmed *Fourco*, holding that § 1400(b) is the exclusive venue statute for patent infringement cases, and that the definition of corporate residence given in § 1391(c) does not affect the scope of residence in § 1400(b).⁶³

C. THE NEW REQUIREMENTS FOR PATENT VENUE IMMEDIATELY AFTER *TC HEARTLAND*

In reaffirming *Fourco*, the Supreme Court rewound the clock on venue in patent infringement cases. As discussed above, 28 U.S.C. § 1400(b) dictates that plaintiffs can bring patent infringement suits against corporations in either (1) district of residence or (2) in a district where they have infringed and have a regular and established place of business.⁶⁴ *TC Heartland* functioned to substantially narrow what § 1400(b) means by “resides,” returning to meaning *only* the state of incorporation. Importantly, however, the decision in *TC Heartland* is limited to *domestic* corporations.⁶⁵ With regards to proper venue for foreign corporations, the Court explicitly did not provide an answer, leaving the question as to where plaintiffs can sue against foreign corporations to earlier decisions.⁶⁶

IV. VENUE IN THE AFTERMATH OF *TC HEARTLAND*

A. HOW HAS THE FEDERAL CIRCUIT RESPONDED?

Since the Court’s decision in June 2017, there have been several Federal Circuit decisions that have resolved lingering questions or have added new limitations to patent venue.⁶⁷ These cases have served to reinforce the narrow

62. *Id.*

63. *See id.*

64. *See* 28 U.S.C. § 1400(b) (2012); *see also supra* Section II.A.1.

65. *TC Heartland*, 137 S. Ct. at 1520 (“In *Fourco*, this Court definitively and unambiguously held that the word ‘reside[nce]’ in § 1400(b) has a particular meaning as applied to *domestic* corporations.”) (alteration in original) (emphasis added).

66. The Court stated “[t]he parties dispute the implications of petitioner’s argument for foreign corporations. We do not here address that question, nor do we express any opinion on this Court’s holding in *Brunette Machine Works, Ltd. V. Kockum Industries, Inc.*, 406 U.S. 706 (1972) (determining proper venue for foreign corporation under then existing statutory regime).” *TC Heartland*, 137 S. Ct. at 1520 n.2 (citation omitted). Historically, all suits against foreign defendants are governed by § 1391 and plaintiffs could bring them in *any* district. *See Brunette*, 406 U.S. at 708; *In re HTC Corp.*, 889 F.3d 1349, 1354–57 (Fed. Cir. 2018); *see also In re Hohorst*, 150 U.S. 653, 659–62 (1893).

67. Since *TC Heartland* (decided May 22, 2017) through December 31, 2018, the Federal Circuit has cited the decision nineteen times. All nineteen were examined for this Note, and

interpretation of patent venue presented in *TC Heartland*, continuing the spirit of the decision.

1. *In re Cray—Establishing Requirements for “Regular and Established Place of Business”*

While *TC Heartland* addressed the first clause of § 1400(b) (“resides”), the Court made no substantive ruling on the second clause (“regular and established place of business”).⁶⁸ *In re Cray* was a post-*TC Heartland* appeal to the Federal Circuit from the Eastern District of Texas that addressed “regular and established of business.”⁶⁹ Raytheon Company brought a patent infringement suit against Cray, Inc. (“Cray”) in the Eastern District of Texas, despite Cray “not rent[ing] or own[ing] an office or any property in the [district].”⁷⁰ However, the district court found venue appropriate, relying on one of two employees who telecommuted from the district.⁷¹ The employee “did not maintain Cray products at home,” and “Cray never paid [him] . . . for the use of his home . . . or publicly advertised or otherwise indicated that his home residence was a Cray place of business.”⁷² While rejecting Cray’s motion to transfer, the court additionally laid out a “totality of the circumstances” four-factor test to determine when a corporation has a regular and established place of business.⁷³ While the test factored in whether the defendant had a physical location, it did not require one as “a prerequisite to proper venue.”⁷⁴

On appeal, the Federal Circuit rejected the district court’s four-factor test, finding it “not sufficiently tethered to th[e] statutory language.”⁷⁵ Particularly,

there were five cases that effected substantial changes. The remaining fourteen were largely brief decisions with lesser effects outside of their particular case.

68. In *TC Heartland*, there was little to no focus on whether Heartland had a “regular and established place of business” in the District of Delaware. See *TC Heartland*, 137 S. Ct. at 1516–18.

69. See *In re Cray Inc.*, 871 F.3d 1355, 1364–67 (Fed. Cir. 2017).

70. *Id.* at 1357.

71. *Id.*

72. *Id.* at 1357–58. The District Court cited to *In re Cordis*, which featured “two full-time sales representatives” based in the district the plaintiff brought the suit in (District of Minnesota). While the defendant did not maintain offices in Minnesota, the employees conducted business for the corporation out of the district. See *Raytheon Co. v. Cray, Inc.*, 258 F. Supp. 3d 781, 792–93 (E.D. Tex. 2017) (citing *In re Cordis Corp.*, 769 F.2d 733 (Fed. Cir. 1985)); *In re Cray*, 871 F.3d at 1357–58.

73. This test assessed (1) “the extent to which a defendant has a physical presence in the district, including but not limited to property, inventory, infrastructure, or people,” (2) “the extent to which a defendant represents, internally or externally, that it has a presence in the district,” (3) “the extent to which a defendant derives benefits from its presence in the district,” and (4) “the extent to which a defendant interacts in a targeted way with existing or potential customers, consumers, users, or entities within a district.” See *Raytheon*, 258 F. Supp. 3d at 796–99.

74. *In re Cray*, 871 F.3d at 1362.

75. *Id.*

the panel found that not requiring a physical location expanded the statute improperly.⁷⁶ In reaching this conclusion, the panel looked at the definition of “place,” (which is used in the wording of § 1400(b)), and held that while a formal location is not required, “there must still be a physical, geographical location in the district from which the business of the defendant is carried out.”⁷⁷ The Federal Circuit then laid out three general requirements: (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.”⁷⁸

In its decision, the Federal Circuit addressed the second clause of § 1400(b) in the wake of *TC Heartland*.⁷⁹ While not directly dictated by the holding of *TC Heartland*, *In re Cray* continued to maintain a high bar for venue. In this light, *In re Cray* can be viewed as the Federal Circuit embracing the Supreme Court’s tightening of venue. Indeed, some commentators have viewed this decision as a message to district courts to keep patent venue restrictive.⁸⁰

2. *In re Micron*—*Rejecting That Waiver Prevents New Motions for Transfer*

In re Micron addressed the question of whether failing to file a motion to transfer or dismiss for improper venue, pre-*TC Heartland*, prevents defendants from filing such motions now.⁸¹ This decision came as district courts were split on whether such defendants had waived their objections to venue under Rules 12(g)(2) and 12(h)(1)(A) of the Federal Rules of Civil Procedure.⁸² On appeal from the District of Massachusetts, the Federal Circuit ultimately concluded

76. *Id.*

77. *Id.*

78. *Id.* at 1360.

79. *See supra* Section III.B.

80. *See* Gene Quinn, *Federal Circuit Strikes Down Gilstrap’s Four-Factor Test for Patent Venue*, IP WATCHDOG (Sept. 21, 2017), <http://www.ipwatchdog.com/2017/09/21/federal-circuit-strikes-down-gilstraps-four-factor-test-patent-venue/id=88117/> [<https://perma.cc/RPX7-67YQ>]. Which stated:

I think this mandamus decision can be best understood by taking into account the patent troll hysteria, the number of patent infringement cases filed in the Eastern District of Texas, the reputation of the Eastern District of Texas for never transferring cases out, the Supreme Court’s recent decision in *TC Heartland* and continued angst surrounding venue decisions in the Eastern District of Texas.

See also Jeffrey H. Chang, *Venue Okay in Cray? Federal Circuit Says “No Way”*, BANNER & WITCOFF (Sept. 22, 2017), <https://bannerwitcoff.com/ip-alert-venue-okay-in-cray-federal-circuit-says-no-way/> [<https://perma.cc/R8VH-NTPV>].

81. *See In re Micron Tech., Inc.*, 875 F.3d 1091, 1093–94 (Fed. Cir. 2017).

82. *Id.* at 1095–96. Rule 12(g)(2) and 12(h)(1)(A) of the Federal Rules of Civil Procedure govern when a party waives their right to bring a motion, and typically applies when a party attempts to make a motion they could have brought earlier. *See* FED. R. CIV. P. 12(g)(2), 12(h)(1)(A). This Note documents and discusses the large increase in such motions in Section IV.B.

that waiver does not apply.⁸³ The core question was whether *TC Heartland* “changed controlling law,” rendering waiver inapplicable.⁸⁴ The Federal Circuit highlighted that *TC Heartland* enabled objections that were “not available for the district court to adopt” and, therefore, were not available for defendants: meaning waiver did not apply.⁸⁵

While the Federal Circuit removed the threat of waiver, the panel made clear that waiver under “Rule 12(h)(1) is not the sole basis on which a district court” may reject “a venue defense that might have succeeded on the merits.”⁸⁶ The court took particular note of potential forfeiture for untimeliness or consent; however, it left future cases to determine how such an analysis should be made.⁸⁷ Indeed, the Federal Circuit has affirmed denials of motions to transfer or dismiss (even following *In re Micron*) in cases that had extensively proceeded or where the trial was imminent.⁸⁸ These cases suggest that the critical analysis in the non-12(h)(1) rejections centers on proximity to trial.

3. *In re ZTE—Establishing That Federal Circuit Law Governs Burden for Venue*

While *TC Heartland* and *In re Cray* affected the interpretation of § 1400(b), these cases left open the question of which body of law—regional circuit or Federal Circuit—governs the burden of proof in determining venue.⁸⁹ In *In re ZTE (USA) Inc.*, an appeal from the Eastern District of Texas, the Federal Circuit addressed this question and held that Federal Circuit law, not regional circuit law, applies.⁹⁰

American GNC Corporation had brought a patent infringement suit against ZTE (USA) Inc. (“ZTE”) in the Eastern District of Texas.⁹¹ ZTE filed motions to dismiss for improper venue and to transfer for convenience.⁹²

83. *In re Micron*, 875 F.3d at 1094.

84. *Id.*

85. *Id.* at 1099–100.

86. *Id.* at 1100.

87. *Id.* at 1101 (“We do not here say how such a claim of forfeiture [for untimeliness or consent] should be analyzed.”).

88. *See, e.g., In re Fedex Corp.*, 2018 U.S. App. LEXIS 32304, *5–6 (Fed. Cir. 2018) (providing an example of a post-*In re Micron* case affirming denial of venue defense as defendants had not “seasonably” raised it); *In re Nintendo of Am., Inc.*, 2017 U.S. App. LEXIS 14835 (Fed. Cir. 2017) (providing an example of a pre-*In re Micron* rejection of venue defense in a case that had extensively proceeded); *In re Techtronics Indus. N. Am., Inc.*, 2017 U.S. App. LEXIS 16324 (Fed. Cir. 2017) (providing an example of a pre-*In re Micron* rejection of venue defense in a case that was two months from trial).

89. *See In re ZTE (USA) Inc.*, 890 F.3d 1008, 1011 (Fed. Cir. 2018).

90. *Id.* at 1013.

91. *Id.* at 1010.

92. *Id.* § 1406(a) governs both motions to transfer and motions to dismiss for improper venue, while § 1404(a) governs for motions to transfer for convenience. 28 U.S.C. §§ 1404(a), 1406(a) (2012).

ZTE's motions were denied, with the judge "citing Fifth Circuit law, plac[ing] the burden on the objecting defendant to show improper venue."⁹³ The court then found that ZTE "failed to . . . show it [did] *not* have a regular and established place of business in the District."⁹⁴

On appeal, the Federal Circuit recognized that it "generally defer[s] to regional circuit procedural law on questions 'not unique to patent law.'"⁹⁵ However, the panel concluded that venue questions under § 1400(b) are "unique to patent law" and thus governed by Federal Circuit law.⁹⁶ Furthermore, it acknowledged that all appeals concerning § 1400(b) would come to the Federal Circuit, and thus adopting a uniform standard "obviates any uncertainty at the district court as to" which law should apply.⁹⁷

The Federal Circuit then held that the plaintiff bears the burden to establish proper venue.⁹⁸ In reaching this conclusion, the panel recognized that § 1400(b) "is intended to be restrictive . . . compared with the broad general venue provision [§ 1391]," and that before the formation of the Federal Circuit, regional circuits "uniformly placed the burden to show proper venue in patent cases" on plaintiffs.⁹⁹ Ultimately, the Federal Circuit vacated the District Court's holding, remanding the case back to the Eastern District of Texas.¹⁰⁰

4. *In re BigCommerce—Establishing Appropriate Venue in States With Multiple Districts*

In another appeal from the Eastern District of Texas, the Federal Circuit continued its trend of limiting venue by further restricting § 1400(b)'s definition of residence. In *In re BigCommerce*, the Federal Circuit addressed the question of how courts should now decide venue in multi-district states, ultimately holding that venue is only appropriate in the specific district in which the defendant satisfies § 1400(b).¹⁰¹

93. *In re ZTE*, 890 F.3d at 1010. The motion to transfer for inconvenience was also rejected but was not at issue in this appeal.

94. *Id.* at 1010–11 (emphasis added).

95. *Id.* at 1012 (citing *Biodex Corp. v. Loredan Biomed., Inc.*, 946 F.2d 850, 856 (Fed. Cir. 1991)).

96. *Id.*

97. *Id.*

98. Prior to *In re ZTE*, there were no Federal Circuit cases that addressed the specific question of burden of proof for venue. *Id.* at 1013–14 ("This court has no heretofore considered which party bears the burden with respect to § 1400(b) as distinguished from § 1391. We have found no case in this court's 37-year history dealing with this question.").

99. *Id.* While the Federal Circuit considered the preexisting regional circuit caselaw on the matter, the panel recognized such opinions as only persuasive authority. *Id.*

100. *Id.* at 1016.

101. *In re BigCommerce, Inc.*, 890 F.3d 978, 980 (Fed. Cir. 2018).

Diem LLC and Express Mobile, Inc. both filed patent infringement suits in the Eastern District of Texas against BigCommerce, Inc.¹⁰² BigCommerce lacked a place of business in the Eastern District of Texas and instead had its registered office and headquarters in the Western District.¹⁰³ Following *TC Heartland*, BigCommerce sought to dismiss one of the cases and transfer the other for improper venue.¹⁰⁴ The district court rejected these motions, stating that venue is proper in *any* district in the corporation's state of incorporation.¹⁰⁵

On appeal, the Federal Circuit concluded that for § 1400(b), a defendant corporation does not reside “in each and every judicial district in” the state of incorporation.¹⁰⁶ The Federal Circuit recognized that “[a] plain reading of ‘*the judicial district*’ speaks to venue in only one particular judicial district in the state.”¹⁰⁷ Furthermore, the court considered the history of § 1400(b), holding that “Congress had in mind one judicial district where the defendant resides.”¹⁰⁸ Additionally, the Federal Circuit acknowledged Supreme Court caselaw, which implied that a domestic corporation does not reside simultaneously in every district in the state of incorporation.¹⁰⁹

In addressing *which* district a corporation resides under § 1400(a), the Federal Circuit held that corporations with in-state headquarters reside where the “principal place of business” is located.¹¹⁰ For a corporation with its principal place of business in a separate state from the state of incorporation, the Federal Circuit held that the location of the corporation's “registered office” should govern.¹¹¹ The Federal Circuit then vacated the District Court's denial of the motions, remanding the case.¹¹²

102. *Id.*

103. *Id.*

104. *Id.*

105. *Id.* The district court also noted that BigCommerce had waived their right to bring the motions; however, the Federal Circuit rejected this notion, citing *In re Micron*, the speed with which BigCommerce brought the motion following *TC Heartland*, and the earliness of the case. *Id.* at 981–82.

106. *Id.* at 982.

107. *Id.* (emphasis added). The particular language of § 1400 states that an action “may be brought in *the* judicial district where the defendant resides” 28 U.S.C. § 1400(b) (2012) (emphasis added).

108. *In re BigCommerce*, 890 F.3d at 983.

109. The Federal Circuit stated that:

While it is true that the [Supreme] Court did not expressly spell out the standard for “inhabitant” in its decision, we are not free to ignore the clear import of its view on the issue: a corporation incorporated in a multi-district state is not a resident of every district in the state.

Id. at 984 (citing *Fourco v. Transmirra*, 353 U.S. 222, 226 (1957); *Stonite Prods. Co. v. Melvin Lloyd Co.*, 315 U.S. 561, 562–63 (1942)).

110. *Id.* at 985.

111. *Id.* at 985–96 (citing *Shaw v. Quincy Mining Co.*, 145 U.S. 444, 449 (1892)).

112. *Id.* at 986.

5. *In re HTC Corp.—Maintaining Loose Venue Requirements Against Foreign Defendants*

While *TC Heartland* and the above Federal Circuit decisions reworked patent venue rules, these changes largely focused on treatment of domestic corporations, leaving open the question of how § 1400(b) treats *foreign* corporations.¹¹³ In contrast to the other decisions that served to restrict proper venue, the Federal Circuit found that foreign corporations enjoyed fewer limitations on where patentees could bring suit.

Several technology companies brought an infringement suit against HTC Corporation (a Taiwanese company) and its U.S. subsidiary in the District of Delaware.¹¹⁴ Both HTC entities filed motions to dismiss or transfer for improper venue, with the district court granting the subsidiary's motion and denying the parent's.¹¹⁵ On appeal, the Federal Circuit cited extensive Supreme Court precedent stating that suits against aliens implicate different venue statutes than suits against domestic entities.¹¹⁶ Of particular importance was *Brunette Machine Works, Ltd. v. Kockum Industries*, which explicitly held that § 1391 governs suits against alien defendants and that such defendants “could not rely on § 1400(b) as a ‘shield’ against suit in a particular district.”¹¹⁷

While HTC argued that the 2011 amendments to § 1391 abrogated preexisting venue rules for aliens, the Federal Circuit rejected this, finding a lack of Congressional intent to “upend the centuries-old understanding that the venue laws . . . do not restrict the location of suits against alien defendants.”¹¹⁸ The Federal Circuit also acknowledged that *TC Heartland* did not affect venue rules against foreign defendants—the Court's decision explicitly did not decide the question.¹¹⁹ The court, therefore, rejected any change to the long-standing rule that “alien defendants are outside the operation of federal venue laws.”¹²⁰

113. *See In re HTC Corp.*, 889 F.3d 1349 (Fed. Cir. 2018).

114. *Id.* at 1351.

115. *Id.* (“[T]he district court found that venue was not proper as to HTC America [the U.S. subsidiary] but was proper as to HTC Corporation [the Taiwanese company].”)

116. *Id.* at 1354–55 (citing *In re Hohorst*, 150 U.S. 653, 659 (1893); *Brunette Mach. Works, Ltd. v. Kockum Indus., Inc.*, 406 U.S. 706, 714 (1972); *Galveston, H. & S.A. Ry. Co. v. Gonzales*, 151 U.S. 496, 507 (1894)). These cases served to establish and affirm the so-called “alien-venue rule,” which holds that an alien can “be sued in any district wherein he is found.” *Galveston*, 151 U.S. at 507.

117. *See id.* at 1355–56 (citing *Brunette*, 406 U.S. at 714).

118. *Id.* at 1356.

119. *See id.* at 1357 (“The Court's recent decision in *TC Heartland* does not alter this conclusion.”); *see also TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1520 n.2 (2017).

120. *In re HTC*, 889 F.3d at 1361 (“With the Supreme Court having spoken on this issue twice [in *In re Hohorst* and *Brunette*], this court—without clear guidance from Congress—will

B. HOW HAVE DEFENDANTS RESPONDED?

As *TC Heartland* and the Federal Circuit decisions substantially changed venue requirements, many cases that had proper venue pre-*TC Heartland* were now in potentially improper districts—raising the possibility of transferring. While some district courts initially blocked such motions under waiver rules,¹²¹ *In re Micron* expressly held that failure to bring a motion, pre-*TC Heartland*, does not waive a defendant’s right to do so now.¹²² To determine how *TC Heartland* and *In re Micron* spurred motions, this Note analyzed data on the total number and success rates of motions to dismiss for improper venue, to transfer for improper venue, and to transfer for convenience before and after each case (Table 1 for *TC Heartland*, Table 2 for *In re Micron*).

Table 1 – Number of venue motions and their success rates before and after *TC Heartland* (decided 05/22/2017)¹²³

Type of motion	Number of motions		Success rates	
	1-year before	1-year after	1-year before	1-year after
Dismiss for improper venue	52	344 (+562%)	10%	28% (+18%)
Transfer for improper venue	7	323 (+4,514%)	43%	74% (+31%)
Transfer for convenience	204	171 (-16%)	47%	69% (+22%)

not broadly upend the well-established rule that suits against alien defendants are outside the operation of federal venue laws.”).

121. See, e.g., *Navico, Inc. v. Garmin Int’l, Inc.*, 2017 U.S. Dist. LEXIS 106461, at *8–9 (E.D. Tex. 2017); *InfoGation Corp. v. HTC Corp.*, 2017 U.S. Dist. LEXIS 103645, at *9 (S.D. Cal. 2017); *Realtime Data LLC v. Barracuda Networks, Inc.*, 2017 U.S. Dist. LEXIS 121581, at *7 (E.D. Tex. 2017).

122. See *supra* Section IV.A.2.

123. The data in Table 1 was obtained from Docket Navigator using the “Motion Success Search” with the “Motion to Dismiss for Improper Venue (FRCP 12(b)(3)),” “Motion to Transfer for Improper Venue (28 U.S.C. § 1406(a)),” and “Motion to Transfer for Convenience (§ 1404(a))” set as “Types of Document.” To assess the impact of *TC Heartland*, the dates searched were May 22, 2016 to May 22, 2017 (for pre-decision) and May 22, 2017 to May 22, 2018 (for post-decision). Motions that were denied as moot were not used in the analysis for calculating success rates (as these typically resulted from settlements), nor were cases with an outcome of “other” (e.g., request for additional briefing, deferred ruling).

Table 2 – Number of venue motions and their success rates before and after *In re Micron* (decided 11/15/2017)¹²⁴

Type of motion	Number of motions		Success rates	
	2-months before	2-months after	2-months before	2-months after
Dismiss for improper venue	65	53 (-18%)	25%	42% (+17%)
Transfer for improper venue	62	59 (-5%)	75%	66% (-9%)
Transfer for convenience	37	31 (-16%)	67%	73% (+6%)

The data in Table 1 demonstrate that defendants took full advantage of changes in patent venue rules to try to remove their cases after *TC Heartland*. In the year before the Supreme Court’s decision, motions concerning improper venue¹²⁵ were relatively rare, occurring only 59 times. In the year following, this number ballooned to 667 (344 for dismissal, 323 for transfer). Interestingly, however, Table 2 demonstrates that *In re Micron* did not increase the rate of such motions. One possible explanation is that before *In re Micron* firmly established that the waiver rule does not apply, defendants were already under the impression this would be the case. As such, there would have been no need to wait for the Federal Circuit to clarify the point, and such defendants would have already filed their motions.

While defendants shifted to improper venue objections, they began to steer away from motions to transfer for convenience (28 U.S.C. § 1404(a) motions¹²⁶). While both § 1406(a) motions grew in number the year after *TC Heartland*, § 1404(a) motions decreased by 16%. One potential explanation is that defendants recognized that *TC Heartland* empowered improper venue objections, and thus, they may have viewed these motions as a stronger or safer argument than relying on inconvenience.

Additionally, Table 1 demonstrates that venue motions, across the board, experienced substantial increases in success rates following *TC Heartland*. Before, all three motions succeeded less than half of the time, with motions to

124. The data in Table 2 was obtained using the same method used to create Table 1, using the dates September 15, 2017 to November 15, 2017 (for pre-decision) and November 15, 2017 to January 15, 2017 (for post-decision). See *supra* note 123. Readers should note that the date ranges used in Table 1 overlap with those used in Table 2. The narrower range for *In re Micron* was used to better capture the effects of the decision in isolation.

125. For the purpose of this Note, motions related to “improper venue” include both motions to dismiss and motions to transfer.

126. While motions to dismiss or transfer for improper venue are governed by 28 U.S.C. § 1406(a), motions to transfer for convenience are governed by 28 U.S.C. § 1404(a). Motions to dismiss for convenience do not exist.

dismiss for improper venue succeeding in a mere 10% of cases. However, following *TC Heartland*, motions to transfer for improper venue and convenience saw success rates increase to approximately 70%, while motions to dismiss for improper venue increased in success rate to 28%—still substantially lower than transfer motions.

There were differing effects on success rates following *In re Micron*, as shown in Table 2. Motions to transfer for convenience or for improper venue experienced moderate changes, remaining within 10% of pre-*In re Micron* success rates. Interestingly, however, motions to dismiss for improper venue rose in success rates to 42%. These data show a dramatic turnaround for the frequency with which courts grant motions to dismiss for improper venue—from only 10% of the time in the year before *TC Heartland*, to 42% of the time in the two months after *In re Micron*.

C. HOW HAVE PLAINTIFFS RESPONDED?

Both *TC Heartland* and the Federal Circuit decisions have narrowed options for where plaintiffs can sue domestic corporations for patent infringement.¹²⁷ These decisions have substantially affected the landscape of where plaintiffs pursue infringement claims, with a rapid reordering of the most popular districts.

1. New Patent Case Filings Continue on a Downward Trajectory

The total number of new patent cases are down post-*TC Heartland*, continuing a trend that began in 2015 to 2016. Observers had noted this trend before *TC Heartland*, and this decrease can somewhat be attributed to fewer filings by patent trolls or high-volume litigants.¹²⁸ Some commentators speculated that such filings (overall filings and filings by patent trolls) would continue to decline in the wake of the decision.¹²⁹ Indeed, the data covering

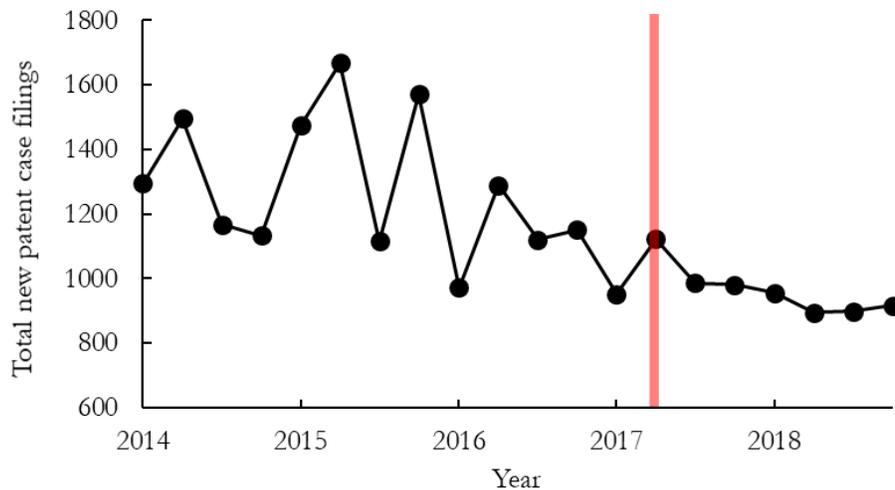
127. See *supra* Sections III and IV.A.

128. See, e.g., Steve Brachmann, *Lex Machina Litigation Report Shows 22% Drop in Patent Infringement Suits for 2016*, IP WATCHDOG (Jan. 17, 2017), <http://www.ipwatchdog.com/2017/01/17/lex-machina-litigation-report-drop-patent-infringement-suits-2016/id=77108/> [<https://perma.cc/Y92U-A6V6>] (“Spikes in patent litigation totals are largely driven by a unique set of litigants which are referred to as ‘high-volume plaintiffs,’”); David Kline, *Is Patent Litigation Out of Control?*, MICHELSON INST. FOR INTELL. PROP. (Apr. 24, 2017), <http://michelsonip.com/patent-litigation-control/> [<https://perma.cc/MF5Q-NSFU>] (discussing the decline in patent litigation and mentioning new procedures that have combatted abusive behavior). The reasons for the pre-*TC Heartland* decrease of patent troll litigation is further discussed in *infra* Section V.C, but are generally due to the numerous previous attempts to combat patent trolls.

129. See Adam Liptak, *Supreme Court Ruling Could Hinder Patent Trolls*, N.Y. TIMES (May 22, 2017), <https://www.nytimes.com/2017/05/22/business/supreme-court-patent-lawsuit.html> [<https://perma.cc/C5P4-KEEN>].

the year and a half following *TC Heartland* show this prediction to be true (Figure 3).

Figure 3. Total patent cases from Q1 2014 to Q4 2018 (red bar indicates *TC Heartland*).¹³⁰



Whether or not *TC Heartland* has directly contributed to this continued decline is uncertain. However, prior research assessing the initial forty-eight days following *TC Heartland* concluded that the decision did not significantly decrease overall filings.¹³¹ The present data support a similar conclusion—while patent filings continue to decrease, the downward curve began before *TC Heartland*. Apart from quarter-to-quarter variability, the Supreme Court’s decision does not appear to have substantially influenced this trend.

2. Districts of Choice Have Shifted

As a result of *TC Heartland* and the Federal Circuit decisions, plaintiffs suing domestic corporations are now limited to either the state of incorporation or districts where the corporation has infringed and has a regular and established place of business.¹³² Patentee-plaintiffs appear to have taken

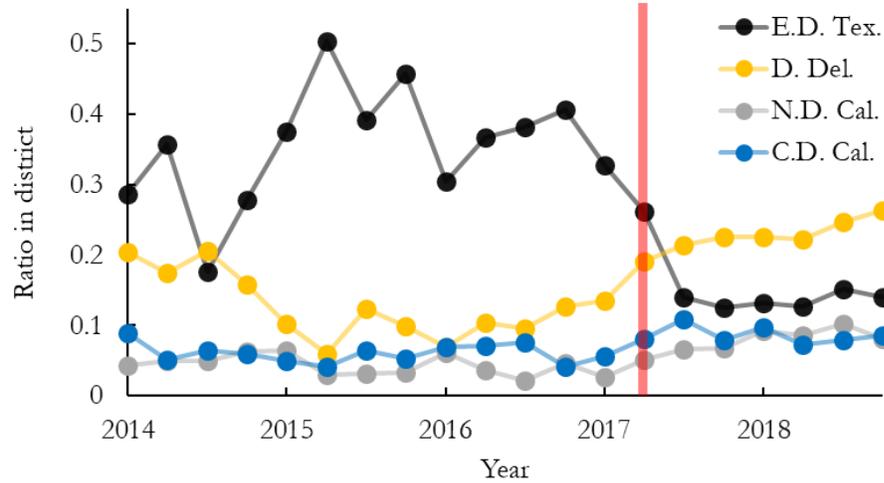
130. The data presented in Figure 3 represent the total number of new patent cases filed each quarter from 2014 through Q4 of 2018. These data were obtained using Lex Machina, with the tag for “Patent” for “Case Types.”

131. See Marc Kustner & Nicholas Tsui, *The First 48: A TC Heartland Story*, 9 AM. U. INTEL. PROP. BRIEF 57, 63–65 (quantifying total filings and venue-specific filings in the forty-eight days before and after *TC Heartland*).

132. See *supra* Sections III and IV.A. For multi-district states, plaintiffs are further restricted to either the specific district where the corporation has its principal place of business or where they have their registered office. See *supra* Section IV.A.4 (discussing *In re BigCommerce*).

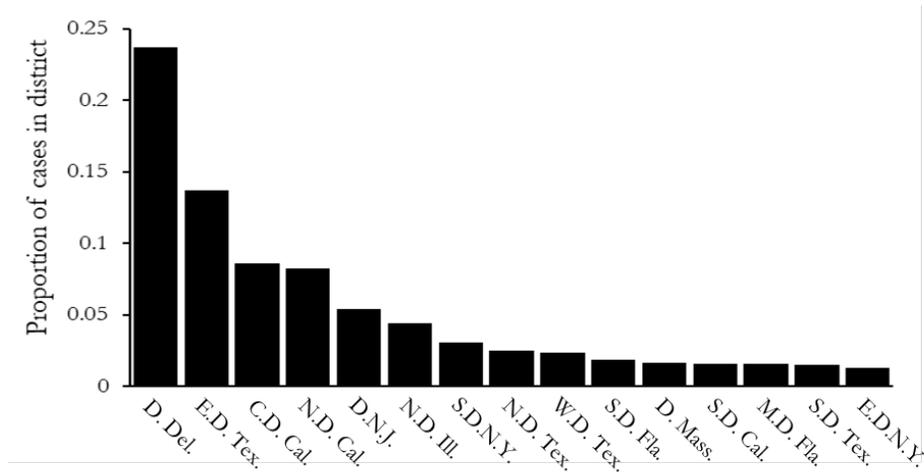
full note of these changes and have dramatically adjusted which districts they are filing in (Figure 4 and Figure 5).

Figure 4. Patent cases by district from Q1 2014 to Q4 2018 (red bar indicates *TC Heartland*).¹³³



133. The data presented in Figure 4 were obtained using the same methodology as Figure 1. *See supra* note 33. The data presented in this figure compare favorably with other studies on the topic. *See* Geneva Clark, *TC Heartland, Legal Trends, One Year Later*, LEX MACHINA BLOG (May 23, 2018), <https://lexmachina.com/tc-heartland-legal-trends-one-year-later/> [<https://perma.cc/J7AB-AS66>].

Figure 5. Proportion of patent cases in the top 15 districts since *TC Heartland* (05/22/2017) through Q4 2018.¹³⁴



Before *TC Heartland*, the Eastern District of Texas featured between 30% to 50% of all patent infringement cases, while the District of Delaware ranged from 6% to 14%.¹³⁵ The Central and North Districts of California, the third and fourth most preferred districts, remained below 10% for much of the same time.¹³⁶ However, immediately following the decision, new patent cases in the Eastern District of Texas have fallen dramatically and now only feature 13% to 15% of cases—though the district remains a popular choice and solidly in second place. While the proportion of cases in the Eastern District of Texas has fallen, the District of Delaware has risen to over 20%.¹³⁷ Although substantially ahead, the District of Delaware has not grown to the monolithic status that the Eastern District of Texas once had. The present data also suggest that Delaware may never reach that height, with the ratio of cases immediately after *TC Heartland* and in Q4 2018 within 5% of one another.¹³⁸

134. The values in Figure 6 were obtained using the same methodology as in Figure 1 but using a date range of May 22, 2017 through December 31, 2018. *See supra* note 33.

135. Between 2015 and *TC Heartland*, the proportion of patent cases in the Eastern District of Texas peaked in Q2 2015 at 50% and bottomed in Q1 2016 at 30%. Likewise, for the same time period, the District of Delaware peaked in Q1 2017 at 14% and bottomed in Q2 2015 at 6%. *See* Figure 4.

136. Prior to *TC Heartland*, neither the Central District of California or the Northern District of California broke 10% of all patent cases between 2013 and the decision. *See* Figure 4.

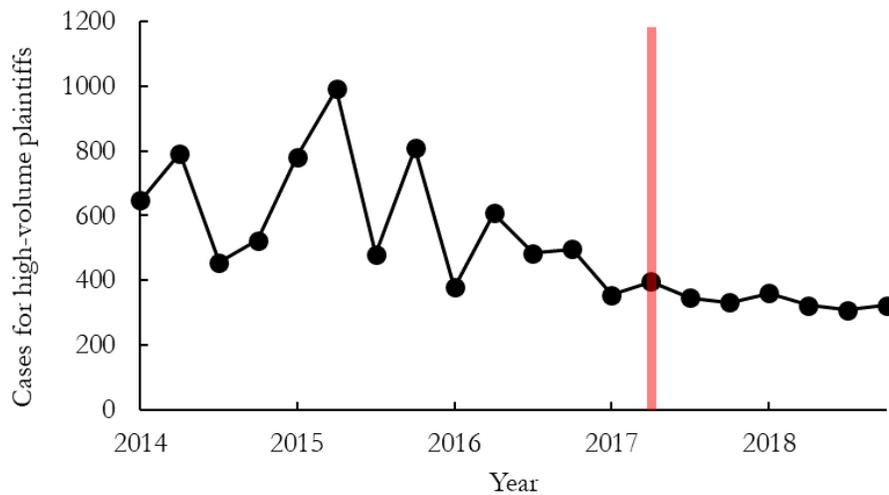
137. From Q3 2017 till now, filings in the District of Delaware have averaged approximately 23% of all patent cases.

138. In Q3 2017, the District of Delaware had 21% of all patent cases, while in Q4 2018, the district had 26%.

3. Effects on High-Frequency Plaintiffs

The above trends are particularly pronounced for high-volume plaintiffs.¹³⁹ Figure 6 and Figure 7 document the continued decline in cases by such plaintiffs and their redistribution among the district courts.

Figure 6. Total patent infringement cases brought by high-volume plaintiffs from Q1 2014 to Q4 2018 (red bar indicates *TC Heartland*).¹⁴⁰



As with patent infringement cases in general, cases brought by high-volume plaintiffs continue to decline from a peak in early 2015.¹⁴¹ As discussed above in Section IV.C.1, whether or not *TC Heartland* contributed to the continuation of this decline is ambiguous.¹⁴² Additionally, the effects of *TC Heartland* on venue choice are also more pronounced for high-volume plaintiffs, as Figure 7 demonstrates.

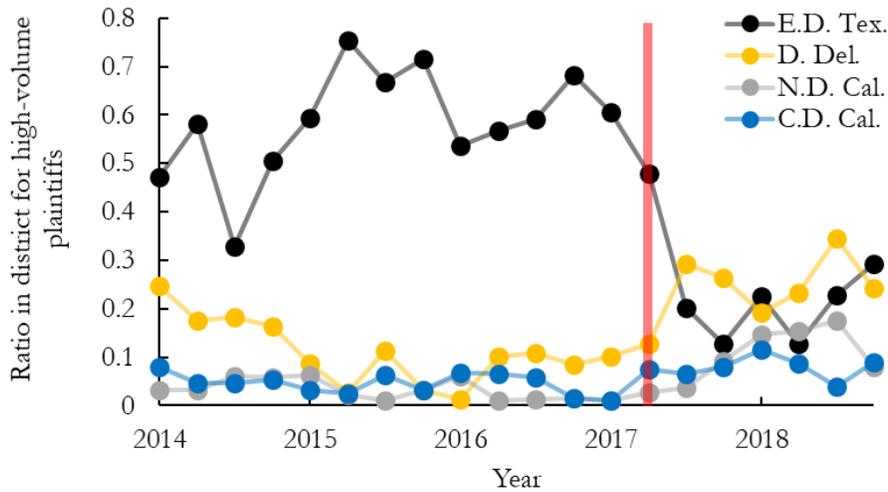
139. As in Section II.C, this Note uses high-volume plaintiffs as a proxy for patent trolls, and uses Lex Machina’s definition of “high-volume plaintiff,” which are plaintiffs that bring ten or more cases per year. *See supra* at note 36.

140. Figure 6 uses the same methodology as in Figure 3, but additionally applies the Lex Machina filter of “high-volume plaintiffs” for “case tags.” *See supra* note 130.

141. *See* Figure 3. The largest number of cases filed by high-volume plaintiffs, assessed on a quarter-by-quarter basis, occurred in Q2 2015. The pre-*TC Heartland* decline of these cases is discussed in further detail *infra* Section V.C.

142. *See supra* Section IV.C.1; *see also* Kustner & Tsui, *supra* note 131, at 63–65 (assessing the first 48 days post-*TC Heartland* and finding that the decision did not meaningfully contribute to a decline in patent cases).

Figure 7. Patent infringement cases brought by high-volume plaintiffs by district from Q1 2014 to Q4 2018 (red bar indicates *TC Heartland*).¹⁴³



As with cases overall, filings in the Eastern District of Texas dropped sharply after *TC Heartland*, while filings in the District of Delaware increased. Both of these trends are magnified for high-volume plaintiffs, with the Eastern District of Texas dropping from 61% in Q1 2017 to 20% in Q3 2017. During the same time span, Delaware increased its proportion from 10% to 29%.

Interestingly, however, while filing trends for patent cases overall rapidly stabilized post-*TC Heartland*,¹⁴⁴ trends for high-volume plaintiffs remain volatile. For example, Delaware's portion of patent cases for high-volume plaintiffs has oscillated between 34% in Q3 2018 and 19% in Q1 2018. Furthermore, both the Northern and Central Districts of California have increased their proportion of cases from high-volume plaintiffs. However, both continue to fluctuate. None of the trends for these four districts have leveled off, suggesting ongoing uncertainty in the practices of high-volume plaintiffs.

V. ANALYSIS

TC Heartland dramatically reworked patent venue rules and initiated an extensive reshuffling of where plaintiffs bring infringement suits. This decision, and the subsequent Federal Circuit opinions, have dramatically affected plaintiffs and defendants alike, creating new approaches to venue

143. Figure 7 uses the same methodology as in Figure 2, and differs from Figure 4 only in that it displays the data limited to high-volume plaintiffs. *See supra* note 41.

144. *See* Figure 4.

objections by defendants¹⁴⁵ and redistributing preferred districts for plaintiffs.¹⁴⁶ Furthermore, the decision has struck a major blow against the strategies of patent trolls, potentially contributing to their continuing decline.

A. FEDERAL CIRCUIT DECISIONS HAVE CONTINUED THE SPIRIT OF *TC HEARTLAND*

The patent-specific venue statute, § 1400(b), contains two separate tests for proper venue—where the defendant “resides” or where the defendant has infringed and has a “regular and established place of business.”¹⁴⁷ *TC Heartland* addressed the first of these tests, holding that “resides” in § 1400(b) is unaffected by definitions in the general-venue statute (§ 1391) and only means the state of incorporation.¹⁴⁸ Since the decision, the Federal Circuit has taken the opportunity to further narrow “resides” in § 1400(b), finding that even within the state of incorporation, domestic corporations only truly reside in a *particular* district of the state.¹⁴⁹

Furthermore, the Federal Circuit independently explored the second test of § 1400(b)—“regular and established place of business.”¹⁵⁰ The Supreme Court did not address this section of § 1400(b), as it was not at issue in *TC Heartland*. However, the Federal Circuit rejected an attempt by the Eastern District of Texas to widen its scope, expressly laying out the requirement of a physical, regular, and established place of business that is “of the defendant.”¹⁵¹ The Federal Circuit then continued to narrow venue, indirectly this time, by expressly placing the burden of proof for venue on the plaintiff.¹⁵² Through both of these cases (*In re Cray* and *In re ZTE*), the Federal Circuit blocked or reversed attempts by district courts to loosen venue restrictions.¹⁵³

While these Federal Circuit cases have served to tighten venue, the court also empowered pre-existing defendants by finding that waiver does not block post-*TC Heartland* objections to venue in cases that began before the Court’s

145. See Tables 1 and 2.

146. See Figures 4 and 7.

147. 28 U.S.C. § 1400(b) (2012).

148. *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17.

149. As discussed above in Section IV.A.4, the Federal Circuit, in *In re BigCommerce*, determined that in multi-district states, a domestic incorporation only “resides” in either the district of their principal place of business (if the principal place of business is in-state) or in the district where their registered office is located. See *In re BigCommerce*, 890 F.3d 978, 980 (Fed. Cir. 2018).

150. See *supra* Section IV.A.1 (discussing *In re Cray*).

151. See *id.*; see also *In re Cray Inc.*, 871 F.3d 1355 (Fed. Cir. 2017).

152. See *supra* Section IV.A.3 (discussing *In re ZTE*).

153. *In re Cray* saw the Federal Circuit reject an attempt by the Eastern District of Texas to define “regular and established place of business” more liberally, while *In re ZTE* saw the Federal Circuit reject the Eastern District of Texas’s attempt to place the burden for proving improper venue onto the defendant (thus creating more difficulties for a defendant to transfer or dismiss their case for improper venue).

decision.¹⁵⁴ Now, not only are plaintiffs more limited in venue options, defendants who were previously unhappy with their district could renew their objections to venue. As such, the eighteen months since *TC Heartland* demonstrate a clear trend of defendant-friendly developments. While the Federal Circuit broke with this trend in *In re HTC*, that decision was limited in scope to foreign defendants.¹⁵⁵

Cumulatively, these decisions potentially demonstrate that the Federal Circuit has recognized the Supreme Court's signal that patent venue needed tightening. While *TC Heartland* did not involve the Eastern District of Texas directly, the district nonetheless took a commanding seat in the decision, and the Court was fully aware of the atmosphere leading up to *TC Heartland*.¹⁵⁶ The Court's decision to dramatically tighten patent venue likely reflects its desire to directly respond to rampant forum shopping and to the dominance of the Eastern District of Texas. In this regard, the Supreme Court's decision has succeeded, both in its own right and in setting a tone for future decisions.

By itself, *TC Heartland* resulted in a near-instantaneous reordering of the hierarchy of preferred districts.¹⁵⁷ Furthermore, the signal of *TC Heartland* was certainly received by the Federal Circuit. While district courts have, at times, tried to fight the tightening venue rules,¹⁵⁸ the Federal Circuit has consistently rejected these attempts. While these cases have frequently arisen in contexts disparate from *TC Heartland*, which is to say they addressed questions not answered in the Court's opinion, the Federal Circuit has consistently upheld the spirit of the decision—that venue in patent disputes should be restrictive.

154. See *supra* Section IV.A.2 (discussing *In re Micron*).

155. See *supra* Section IV.A.5 (discussing *In re HTC*, which affirmed that foreign defendants could not use § 1400(b) to object to venue).

156. See J. Jonas Anderson, *Reining in a "Renegade" Court: TC Heartland and the Eastern District of Texas*, 39 CARDOZO L. REV. 1569, 1588 (2018) (stating "[t]his case was an odd vehicle to limit the Eastern District of Texas's patent docket; the case had no tie whatsoever to East Texas. Despite the lack of a Texas connection, much of the briefing concerned the Eastern District of Texas"); see also Brief of Amici Curiae of 32 Internet Companies, Retailers, and Associations in Support of Petition for Writ of Certiorari at 4, *TC Heartland*, 137 S. Ct. 1514 (No. 16-341) (discussing forum shopping enabled by *VE Holding*); Brief of Amici Curiae 56 Professors of Law and Economics in Support of Petition for Writ of Certiorari at 1, *TC Heartland*, 137 S. Ct. 1514 (No. 16-341) (discussing forum shopping).

157. See *supra* Section IV.C. As discussed above, the quarter immediately after the *TC Heartland* decision saw a dramatic decrease in filings in the Eastern District of Texas. These changes occurred before any of the major Federal Circuit decisions, detailed in Section IV.A, issued, showing that *TC Heartland*, standing by itself, substantially curtailed forum shopping to the district.

158. See, e.g., *Raytheon Co. v. Cray, Inc.*, 258 F. Supp. 3d 781 (E.D. Tex. 2017) (attempting to establish a new test under regular and established place of business); *Diem LLC v. BigCommerce, Inc.*, 2017 U.S. Dist. LEXIS 117892 (E.D. Tex. 2017) (attempting to hold a defendant as residing in every district in multi-district states); *Am. GNC Corp. v. ZTE Corp.*, 2017 U.S. Dist. LEXIS 184470 (E.D. Tex. 2017) (attempting to place the burden of proof for venue on the defendant).

Indeed, the majority of substantive Federal Circuit decisions involving venue for domestic corporations since *TC Heartland* through 2018 have added further limitations.¹⁵⁹ These restrictions, beginning with *TC Heartland* itself, show a clear and definite trend towards narrower venue in patent disputes.

B. PLAINTIFFS AND DEFENDANTS HAVE EMBRACED NEW VENUE RULES ONE YEAR ON

In response to these decisions, both plaintiffs and defendants have dramatically reworked their approaches to patent infringement suits.¹⁶⁰ Defendants, who were previously unable to realistically object to venue, took the opportunity to transfer or dismiss their cases. Noticeably, defendants shifted from a preference for transfer for inconvenience motions to motions to transfer or dismiss for improper venue—all of which saw significant increases in success rates following *TC Heartland*.¹⁶¹

Likewise, plaintiffs reworked their approach, shifting their focus from the Eastern District of Texas to the District of Delaware.¹⁶² While the Federal Circuit has now addressed both the “resides” and “regular and established place of business” tests of § 1400(b), the preference for Delaware shows that plaintiffs are likely relying on the former and targeting defendants in their state of incorporation.¹⁶³ One potential explanation for this preference is that state of incorporation is a low burden to meet—a corporation is either incorporated in a given state or it is not—rather than the more ambiguous “regular and established place of business” requirement. However, the fact that the Eastern District of Texas remains the second most popular district shows that plaintiffs still make use of the “regular and established place of business” prong of

159. This Note addresses the decisions of each of these Federal Circuit decisions in both Section IV.A and in the paragraphs immediately above in Section V.A.

160. See *supra* Sections IV.B and IV.C. As discussed sporadically above, several studies have assessed the reshuffling of districts in the immediate aftermath of *TC Heartland*. The work in this Note expands upon these preexisting studies, now that more time has passed since the Supreme Court’s decision. See, e.g., Colleen V. Chien & Michael Risch, *Recalibrating Patent Venue*, 77 MD. L. REV. 47 (2017); Kustner & Tsui, *supra* note 131; Clark, *supra* note 133; Byrd, *supra* note 36.

161. *Id.* Of particular note here is the dramatic increase in success rates for motions to dismiss for improper venue, which succeeded only 10% of the time in the year before *TC Heartland*, and then succeeded 42% of the time in the two months following *In re Micron*. See Table 2.

162. See Figures 4, 5, and 7.

163. See Charles B. Walker & Dino Arslanagic, *Where Will All the Patent Cases Go: The Aftermath of TC Heartland*, 44 LITIG. 54 (2018) (“[T]he District of Delaware has seen a surge in patent litigation filings, which reflects plaintiffs’ inclination to rely on a corporate defendant’s state of incorporation for establishing proper venue under the patent venue statute.”).

§ 1400(b).¹⁶⁴ Ultimately, while this new preference potentially adds predictability for defendants, it has also created workload issues for the District of Delaware in the short-term.¹⁶⁵

While Delaware has replaced the Eastern District of Texas at the top, the District of Delaware has not reached the dominance of the Eastern District of Texas in years past.¹⁶⁶ As such, the patent landscape today appears substantially more evenly distributed than before *TC Heartland*.¹⁶⁷ Under this light, *TC Heartland* has succeeded in its goal to change plaintiff behavior and combat forum shopping. Though one could view the new preference for the District of Delaware as a new direction for forum shopping, the use of the district is far from unexpected. For a domestic corporation incorporated in Delaware, being sued in Delaware can hardly be a surprise or unforeseeable. As such, *TC Heartland* appears to have largely diminished this form of forum shopping.

C. ANOTHER NAIL IN THE COFFIN – PATENT TROLLS CONTINUE TO DECLINE IN THE WAKE OF *TC HEARTLAND*

While not directly addressed in the Supreme Court’s decision, *TC Heartland* implicitly targeted patent trolls. Commentators and academics have regarded patent trolls as a major cause for the explosion of cases in the Eastern District of Texas, helping set the stage of the Supreme Court’s decision.¹⁶⁸ The data presented in this Note (using high-volume plaintiffs as a proxy for patent trolls) make it clear that *TC Heartland* deeply affected these groups.¹⁶⁹ However, one must view the effect of *TC Heartland* in the context of the preceding years, which saw a trending decline in the number of cases brought by high-volume plaintiffs.¹⁷⁰ In Q2 2015, high-volume plaintiffs brought nearly 1,000 patent

164. There are likely many domestic corporations that easily satisfy the “regular and established place of business” test with respect to the Eastern District of Texas. A prominent example of such a corporation is likely the large retailer Target, which is incorporated in Minnesota but has multiple stores in the Eastern District of Texas, including one in Tyler, Texas. See *Find a Store*, TARGET, <https://www.target.com/store-locator/find-stores/tyler,tx> [<https://perma.cc/EA49-8VRT>] (last visited Oct. 28, 2019).

165. See Alan R. Silverstein & Stephanie E. O’Byrne, *Patent Litigation in an Undermanned District of Delaware after TC Heartland*, 31 CORP. COUNS. 1 (2017).

166. *Id.* While the District of Delaware is now the most popular choice for plaintiffs, the district features only 21–26% of patent cases, far below the 50% peak that the Eastern District of Texas captured in Q2 2015. See *supra* Section IV.C.2.

167. *Id.*

168. See Cano, *supra* note 40 (discussing patent trolls and the rise of the Eastern District of Texas).

169. See Figure 6 and 7 (documenting the continuing decline of cases brought by high-volume plaintiffs and the redistribution of preferred venue).

170. As discussed above in Section II.C, this Note uses high-volume plaintiffs as a proxy for patent trolls. While this definition is likely over-inclusive, trends for high-volume plaintiffs are expected to reflect and report on trends for patent trolls. See Karmasek, *supra* note 37 (quoting a Lex Machina data scientist as stating that he would consider the majority of high-volume plaintiffs to be patent trolls).

infringement cases, but by Q1 2017, this number dropped by nearly two-thirds.¹⁷¹ The reasons for this decline are numerous and include new procedural mechanisms (such as *inter partes review*, which offers a cheaper method for invalidating patents), changes to patentability standards (e.g., changes to § 101 subject matter eligibility that limit the scope of certain patents), new defensive business strategies (e.g., patent pools, joint defense groups), and overall declining profits for patent trolls.¹⁷² Therefore, while *TC Heartland* fits into this pattern of improved defense, it is difficult to see it as more than a single star in a constellation.

However, while patent trolls were already in decline before *TC Heartland*, the decision was nonetheless another blow, dramatically affecting patent troll strategy. While overall filings in the Eastern District of Texas were on the decline before *TC Heartland*, the preference of high-volume plaintiffs for the district remained relatively consistent.¹⁷³ That high-volume plaintiffs still brought over half of their cases in the Eastern District of Texas immediately before *TC Heartland* showed that their strategies still relied on the district. However, *TC Heartland* upended this approach, forcing them to less-preferred jurisdictions.¹⁷⁴ Whether these shifts in choice of district will result in lower success rates or lower payouts remains to be seen and will be an interesting topic of future study. Regardless, the data presented in this Note show that *TC Heartland* largely succeeded in further disrupting patent troll behavior.

D. PROJECTIONS FOR PATENT VENUE MOVING FORWARD FOLLOWING *TC HEARTLAND* AND THE FEDERAL CIRCUIT DECISIONS

While this Note focuses on the year and a half following *TC Heartland*, speculation as to how patent venue will continue to evolve is entirely warranted. Based on Federal Circuit decisions discussed in Section IV.A and the available data in Sections IV.B and IV.C, this Note projects two likely outcomes: (1) that motions to dismiss, while continuing to enjoy somewhat higher success rates, will begin to decline in number, and (2) that the overall

171. Figure 6.

172. See, e.g., Daniel Fisher, *Hard Times for Patent Trolls and Challengers, As Courts, Targets Fight Back*, FORBES (Mar. 24, 2017), <https://www.forbes.com/sites/danielfisher/2017/03/24/hard-times-for-patent-trolls-and-challengers-as-courts-targets-fight-back/#bd249df2e7ff> [<https://perma.cc/X7DD-75Z5>] (quoting Yar Chaikovsky as stating “[t]hese things are dying one of two ways – IPR or *Alice* – and that’s making the lives of trolls hell”); Eduardo Porter, *Patent ‘Trolls’ Recede as Threat to Innovation. Will Justices Change That?*, N.Y. TIMES (Nov. 21, 2017), <https://www.nytimes.com/2017/11/21/business/economy/patents-trolls-supreme-court.html> [<https://perma.cc/QC95-8KWX>] (discussing the decline of patent trolls); Erin Griffith, *RPX and the Complicated Business of Stockpiling Patents for Good, not Evil*, PANDO (Sept. 9, 2013), <https://pando.com/2013/09/09/rpx-and-the-complicated-business-of-stockpiling-patents-for-good-not-evil/> [<https://perma.cc/ZX6A-6LPQ>].

173. See Figures 4 and 7.

174. See *supra* Section IV.C; see also Figure 7.

patent venue landscape in coming years will likely be consistent with the landscape of today.

First, the present data suggest that motions to transfer or dismiss for improper venue will begin to decline in frequency, while potentially retaining somewhat higher success rates. Following both the Court's decision in *TC Heartland* and the Federal Circuit's decision in *In re Micron*, success rates for motions to transfer or dismiss have increased.¹⁷⁵ In addition to reflecting that many cases were now in districts that lacked proper venue, the increases in success rates potentially reflected both a decrease in procedural and substantive hurdles for defendants.¹⁷⁶ The Federal Circuit cases have followed a strong pro-defendant trend, and the consistency of these decisions in restricting venue suggests that courts will not walk these changes back. As such, these changes may indicate higher long-term success rates in improper venue motions, even once the current cases have run their course.

However, the interaction between *where* plaintiffs file patent infringement cases and *how often* defendants file motions to transfer or dismiss for improper venue suggests that these motions will decrease in popularity. Following *TC Heartland*, defendants filed a large number of such motions—largely to escape the Eastern District of Texas.¹⁷⁷ However, the prevalence of the district in these motions no doubt reflected its previous popularity among plaintiffs. Thus, the large decrease in new filings in the district¹⁷⁸ suggests that there simply will not be as many situations where defendants will want to object. As demonstrated by the data before the *TC Heartland* decision, the low number of motions suggests defendants prefer not to file fruitless venue motions.¹⁷⁹ A similar outcome is likely in the near future. Now that plaintiffs are readjusting where they are bringing cases, defendants will be in districts—from the start

175. See *supra* Section IV.B.

176. Examples of these changes include the Federal Circuit putting the burden of proof for venue on the plaintiff and ruling on the inapplicability of waiver. See *supra* Section IV.A.

177. While this Note did not differentiate these motions by district, previous work looking at the first three months after *TC Heartland* showed that the Eastern District of Texas dominated in such motions. See Byrd, *supra* note 36 (evaluating motions to transfer in the immediate wake of *TC Heartland*).

178. See *supra* Section IV.C (documenting the fall of patent case filings in the Eastern District of Texas).

179. Prior to *TC Heartland*, the loose venue rules meant that defendants did not have a reasonable chance of succeeding in motions to transfer or dismiss for improper venue (reflected in the low success rates for these motions). See *supra* Section IV.B. As such, defendants may have viewed such motions as not worth pursuing, potentially leading to the low frequency of such motions in the year before *TC Heartland*. See *id.*

of their cases—that they cannot reasonably object to, even post-*TC Heartland*.¹⁸⁰

Second, the present data, along with the Federal Circuit decisions in the wake of *TC Heartland*, suggest that the patent venue landscape of the future will be similar to that of today. As discussed above,¹⁸¹ the proportion of new patent cases by district, for plaintiffs overall, in the most recent quarter analyzed (Q4 2018) are only marginally different from those immediately after *TC Heartland*.¹⁸² These trends demonstrate that plaintiffs, in general, rapidly adopted to new venue rules. In particular, plaintiffs have shifted to the District of Delaware, a common state of incorporation for many businesses.¹⁸³ Unless corporations suddenly begin changing their state of incorporation—an unlikely proposition—then venue in Delaware will likely remain valid in the future.

Furthermore, the consistency of the Federal Circuit in continuing to restrict venue¹⁸⁴ suggests that a return to the loose venue rules of *VE Holding* is unlikely. As such, future plaintiffs will likely be as limited as they are today, and will likely continue to pursue claims in their opponents' state of incorporation: frequently Delaware. However, the current high variability in preferred districts for high-volume plaintiffs¹⁸⁵ suggests that predictions are difficult for that particular group. As such, more time will likely need to pass before longer-term trends become clear for patent trolls and high-volume litigants.

VI. CONCLUSION

TC Heartland dramatically upended the patent venue landscape, and the Federal Circuit has followed this decision with further elaborations and restrictions to venue. In response, both plaintiffs and defendants reacted quickly. In the immediate wake of *TC Heartland*, pre-existing defendants took full advantage of the new venue requirements to either transfer or dismiss their cases, with increasing success. Likewise, patentee-plaintiffs have also reworked their approach. While still bringing a substantial number of cases in the Eastern

180. An example of such a district is the District of Delaware, which has taken over the Eastern District of Texas as the top district for patent cases. *See supra* Section IV.C. For a defendant incorporated in Delaware, they cannot reasonably object if they are in fact incorporated in the state.

181. *See supra* Section IV.C.

182. *See id.*

183. In 2012, “more than half of U.S. publicly-traded companies and 64% of the Fortune 500” were incorporated in Delaware. Jeffrey W. Bullock, *2012 Annual Report*, DEL. DIV. CORPS. (2012), <https://corpfiles.delaware.gov/pdfs/2012CorpAR.pdf> [<https://perma.cc/EL5P-W8SR>] (last visited Oct. 28, 2019).

184. *See supra* Sections IV.A and V.A.

185. *See supra* Section IV.C.

District of Texas, they have begun to utilize the District of Delaware in the plurality of infringement cases. Furthermore, *TC Heartland* has dramatically affected the strategies of patent trolls, with their preferred districts now variable and fluctuating. While patent trolls had already begun to decline before *TC Heartland*, the decision struck a blow to their use of forum shopping. Ultimately, the eighteen months since *TC Heartland* demonstrate that the decision has curtailed forum shopping, as both the Federal Circuit and litigants have come to accept the spirit of the decision—that venue in patent infringement suits is restrictive.

