

COURTING SPECIALIZATION: AN EMPIRICAL STUDY OF
CLAIM CONSTRUCTION COMPARING PATENT LITIGATION
BEFORE FEDERAL DISTRICT COURTS AND THE
INTERNATIONAL TRADE COMMISSION

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ABSTRACT

The United States International Trade Commission (ITC) has recently become an important adjudicator of patent infringement disputes, and the administrative law judges (ALJs) on the ITC are widely viewed as experts on patent law. This Article empirically examines the performance of the ITC in patent claim construction cases. The Article also compares the performance of the ITC on claim construction with that of federal district courts of general jurisdiction. This study does not find any evidence that the patent-experienced ALJs of the ITC are more accurate at claim construction than district court judges or that the ALJs learn from the Federal Circuit's review of their decisions. When considered in the context of previous studies, the results of this study hint at three possible explanations for the lack of evidence: (1) trial judges (including the ALJs of the ITC) cannot master claim construction, especially without a technical background; (2) the Federal Circuit's claim construction case law is poorly articulated; or (3) claim construction is inherently indeterminate.

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INTRODUCTION

The bulk of patent cases are litigated in federal district courts of general jurisdiction. Most district court judges are generalists who never hear enough patent cases to become experts in that area of law.¹ District court decisions concerning patent claim construction² have a very high reversal rate before the Federal Circuit.³ Because of district courts' lack of judicial expertise and the high commercial stakes involved in patent litigation, lawyers, judges, and academics have argued for dramatic change to lessen that reversal rate.⁴ They have asserted that a different set of trial court judges is needed to hear patent cases. Instead of generalists, some have advocated for specialized patent trial courts.⁵ As a result of this growing opinion that specialized patent judges are necessary, Congress is currently debating a proposal for specialized patent trial courts called the Patent Pilot Program.⁶ The Patent Pilot Program would segregate quasi-specialized patent trial judges from the general pool of district court judges.⁷ District court judges who participate in the Patent Pilot Program would hear all of the patent cases brought in their districts.⁸ At first blush there seems to be no downside to the

1. James F. Holderman & Halley Guren, *The Patent Litigation Predicament in the United States*, 2007 U. ILL. J.L. TECH. & POL'Y 1, 4-6.

2. Claim construction is the process of interpreting certain critical words in a patent that define the patent's scope.

3. See, e.g., Kimberly A. Moore, Markman *Eight Years Later: Is Claim Construction More Predictable?*, 9 LEWIS & CLARK L. REV. 231, 232-34 (2005).

4. See, e.g., Rochelle Cooper Dreyfuss, *In Search of Institutional Identity: The Federal Circuit Comes of Age*, 23 BERKELEY TECH. L.J. 787, 802-04 (2008); James F. Holderman, *Judicial Patent Specialization: A View from the Trial Bench*, 2002 U. ILL. J.L. TECH. & POL'Y 425, 431 (supporting John Pegram's proposal to assign patent cases to the U.S. Court of International Trade); John B. Pegram, *Should There Be a U.S. Trial Court with a Specialization in Patent Litigation?*, 82 J. PAT. & TRADEMARK OFF. SOC'Y 765, 767 (2000) (advocating that all patent cases be assigned to the U.S. Court of International Trade); Arti K. Rai, *Specialized Trial Courts: Concentrating Expertise on Fact*, 17 BERKELEY TECH. L.J. 877, 877-81 (2002).

5. Pegram, *supra* note 4.

6. Pilot Program in Certain United States District Courts To Encourage Enhancement of Expertise in Patent Cases Among District Judges, H.R. 628 & S. 299, 111th Cong. (1st Sess. 2009) [hereinafter Patent Pilot Program].

7. *Id.*

8. *Id.*

Patent Pilot Program. Presumably the expertise of judges should reduce litigation uncertainty, including uncertainty from the always-contested issue of claim construction. On further reflection, however, that may not be the case. First, existing empirical literature suggests that district court judges with more patent experience are reversed at roughly the same rate as judges with less experience.⁹ Second, specialized patent trial courts already exist within the U.S. legal system—at the U.S. International Trade Commission (ITC)—and an empirical comparison between the ITC and general district courts suggests that specialized patent judges would not yield any more certainty than the more generalist district court judges.¹⁰

In an effort to predict the effectiveness of the Patent Pilot Program, this Article compares ITC patent claim construction decisions to those of district courts of general jurisdiction. Although the ITC was established in 1916, only recently has it become a popular forum for adjudication of patent infringement claims. Administrative law judges (ALJs) serve on the ITC as arbiters of cases that almost exclusively involve patent issues.¹¹ Colleen Chien's recent article *Patently Protectionist? An Empirical Analysis of Patent Cases at the International Trade Commission* studied, among other things, whether the ITC is biased against foreign defendants.¹² Following up on Professor Chien's work, this Article examines a different assumption about the ITC.

Given the ALJs' extensive experience with patent infringement litigation, they are widely reputed as experts¹³ in patent law.¹⁴ It is

9. See David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223, 255-56 (2008).

10. See *infra* Parts III, IV.

11. Over 85 percent of the cases the ALJs handle concern patent infringement. Colleen V. Chien, *Patently Protectionist? An Empirical Analysis of Patent Cases at the International Trade Commission*, 50 WM. & MARY L. REV. 63, 70 (2008); *Litigation Before the International Trade Commission: The Pace Picks Up*, METROPOLITAN CORP. COUNS., Dec. 2007, at 42.

12. Chien, *supra* note 11.

13. As discussed herein, most ALJs lack a scientific background. They are extremely savvy in the process of deciding claim construction disputes but not in the technology.

14. See, e.g., BARRY L. GROSSMAN & GARY M. HOFFMAN, PATENT LITIGATION STRATEGIES HANDBOOK 528 (2d ed. 2005) (noting that the ALJs "possess an understanding of the complex legal and technical issues inherent in intellectual property litigation"); *Litigation Before the International Trade Commission*, *supra* note 11 (stating that the ALJs "have developed substantial expertise" in patent litigation); Tom M. Schaumberg, *Advantages of International*

commonly assumed that these ALJs are reversed at a lower rate on appeal.¹⁵ This assumption, however, has never been tested.¹⁶ Two significant questions beg for an empirical answer. First, how do the ALJs of the ITC perform in claim construction cases, as measured by the reversal rate from the Federal Circuit? And second, how does their performance compare with the performance of generalist district court judges? The answers to these questions will shed light on the effectiveness of specialized patent trial courts, ultimately informing the decision of whether to implement the Patent Pilot Program.

This Article explores these issues using a database containing all Federal Circuit claim construction appeals of decisions from the ITC from 1996 through 2008. Using a previously designed methodology,¹⁷ the Article provides an extensive analysis into the reversal rates of the ALJs. The data is then compared to previously collected data concerning the claim construction reversal rates of district courts. Standing on its own, this data must be viewed with caution because the universe of ITC cases is very small. When

Trade Commission Practice: Gaining an Edge over Infringing Imports, THE COMPUTER & INTERNET LAW., Feb. 2008, at 19, 21 (noting that the ITC ALJs “have particular expertise in intellectual property disputes”); Steve Seidenberg, *Patent Rocket Docket: Patent Holders Choose the International Trade Commission for Fast, Powerful Results*, 93 A.B.A. J. 38, 38 (2007) (“[P]atent owners ... appreciate the expertise of administrative law judges who ... are conversant with both technology and law, so there’s no need to educate, as with a district court judge or a jury, about the intricacies of construing a patent.”); Steve Seidenberg, *The Fast Track: ITC Gains Favor with Companies Embroiled in Patent Disputes*, INSIDE COUNSEL, Sept. 2006, at 22, 25 (“And because these judges have extensive experience with adjudicating patent infringement cases, they are more likely to understand complex patent issues.”); Interview by Douglas Lichtman with Chief Judge Paul R. Michel (Jan. 2009), available at <http://www.ipcolloquium.com/Programs/Players/4.html> (characterizing the ALJs as “specialist” judges and “expert patent judges”).

15. See, e.g., *Litigation Before the International Trade Commission*, *supra* note 11 (arguing that “the ITC has traditionally done very well” on appeal to the Federal Circuit); Schaumberg, *supra* note 14, at 21 (asserting without support that the ITC’s “expertise is reflected in the high number of determinations that are affirmed on appeal”); Jones Day, ITC Section 337-Overview, <http://www.jonesday.com/services/area.aspx?areaID=3> (last visited Mar. 5, 2009) (stating, without support, that the “ITC’s claim interpretations are, however, rarely reversed by the Federal Circuit”).

16. A strong but somewhat dated article apparently collected limited data on the reversal rate of ITC claim construction. See Christian A. Chu, *Empirical Analysis of the Federal Circuit’s Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1124, 1157 (2001) (noting that the Federal Circuit reviewed seven ITC cases in a three year window).

17. See Schwartz, *supra* note 9.

considered alongside other evidence, however, the data provide another piece of evidence in the study of claim construction reversal rates. The data do not reveal any evidence that the patent-experienced ALJs of the ITC are more accurate at claim construction than generalist district court judges or that the ALJs learn from the Federal Circuit's review of their rulings. These results provide important new information in the study of claim construction. Because the specialized ALJs performed similarly to the generalized district court judges, the district court judges' high claim construction reversal rates may not be primarily due to the generalized jurisdiction of the district courts. Rather, when considered in the context of previous studies,¹⁸ the results of this study hint at three possible causes of the high reversal rate: (1) trial judges (including the ALJs of the ITC) cannot master claim construction, especially without a technical background; (2) the Federal Circuit's claim construction case law is poorly articulated;¹⁹ or (3) claim construction is inherently indeterminate.

This Article has four parts. Part I expounds on the law of patent claim construction. It explains the requirements and particularities of litigation before the ITC. Part II sets forth the study design and methodology. Part II also provides a brief discussion of important limitations in the data. Part III sets forth the empirical results of the study. Part IV provides various explanations for the results of the study, including that the actual performance of the ITC is not apparent through the study of reversal rates. This Part also discusses the repercussions of the study to the patent system. The Appendix describes the data collection process in more detail.

18. See, e.g., *id.*

19. See, e.g., Russell B. Hill & Frank P. Cote, *Ending the Federal Circuit Crapshoot: Emphasizing Plain Meaning in Patent Claim Construction*, 42 IDEA 1, 1-2 (2002); Timothy R. Holbrook, *Substantive Versus Process-Based Formalism in Claim Construction*, 9 LEWIS & CLARK L. REV. 123, 124-26 (2005); Kelly C. Mullally, *Patent Hermeneutics: Form and Substance in Claim Construction*, 59 FLA. L. REV. 333, 334-39 (2007) (finding that the "practice of interpreting claims has been unstable and marred with criticism"); Craig A. Nard, *A Theory of Claim Interpretation*, 14 HARV. J.L. & TECH. 1, 2-6 (2000) (discussing the theories of interpretation employed by the Federal Circuit); Kristen Osenga, *Linguistics and Patent Claim Construction*, 38 RUTGERS L.J. 61, 62-63 (2006) (describing the Federal Circuit's "failure to provide adequate guidance"); R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1107-13 (2004).

Particularly, it describes the process of locating and selecting the population of ITC investigations, as well as the district court lawsuits. It also reports a measure of reliability of the data.

I. PATENT LITIGATION BEFORE THE U.S. INTERNATIONAL TRADE COMMISSION

The ITC is authorized to investigate complaints of U.S. patent infringement by goods imported into the United States²⁰ and has rapidly become a favored venue of patent holders.²¹ This Section provides a quick primer on patent claim construction, followed by a description of patent litigation before the ITC.

A. Patent Litigation and Claim Construction

Patent litigants square off in several possible fora, with the bulk of the litigation occurring in the federal district courts. The recurring theme of patent litigation is simple. The owner of a patent asserts that a product of another infringes upon at least one claim of the patent. The accused infringer ordinarily both denies infringement and argues that the patent is invalid.²² In other words, the accused infringer contests whether the product falls within the patent right and also argues that the patent is defective. The infringement and validity issues normally hinge upon the scope and reach of the patent. Determining the patent's scope is called claim construction.²³

Claim construction involves interpreting the phrases and words used in the claims²⁴ of the patent. The court has responsibility as a

20. 19 U.S.C. § 1337 (2006). The ITC investigates and makes determinations regarding other international trade disputes, including, for example, antidumping investigations. 19 U.S.C. §§ 1673a-1673d (2006).

21. Seidenberg, *The Fast Track: ITC Gains Favor with Companies Embroiled in Patent Disputes*, *supra* note 14, at 22, 25.

22. *See, e.g.*, Judge Ronald L. Buckwalter, *Trial Techniques in the New Millennium*, 19 TEMP. ENVTL. L. & TECH. J. 1, 7 (2000).

23. *Alloc, Inc. v. ITC*, 342 F.3d 1361 (Fed. Cir. 2003); *see also* *OR Phillips v. AWH*, 415 F.3d 1303, 1312-14 (Fed. Cir. 2005).

24. A patent claim is a single sentence at the end of an issued patent that “particularly” and “distinctly” points out what the invention is. 35 U.S.C. § 112 (2006).

matter of law for construing claims²⁵ and must construe them before determining infringement and validity.²⁶ Although ascertaining the meaning of the phrases and words in patents may appear to be simple, in reality claim construction is perhaps the most difficult aspect of patent litigation.²⁷ Claim construction has both a legal and a technical component.²⁸ Claim construction requires an understanding of both the governing law and the vernacular of the underlying technology. A patent for a medical needle assembly, for example, might use the term “slot” to describe a portion of the invention.²⁹ During litigation, the judge will be called upon to construe the precise meaning of the term “slot.” Construing the term “slot” requires both use of the proper legal framework and technical background, in this case relating to medical devices. For instance, there is legal significance to the linguistic and semantic ways that the term “slot” is used in the patent. On the technical side, the medical industry may require or expect certain dimensions for slots in needle assemblies.

The law of claim construction is embodied in a series of simple common law rules called the “canons of construction.”³⁰ The canons are specific to the patent context and supposedly inform the court how to interpret words. These canons are discussed in numerous cases and other articles and typically do not provide a single clear answer to any particular claim construction question.³¹ Although

25. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 371, 388 (1996) (holding that judges must construe patent claims); *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc) (holding claim construction is to be reviewed de novo). Before the *Markman* decision, juries were permitted to construe patent claims.

26. *State Contracting & Eng'g v. Condotte Am., Inc.*, 346 F.3d 1057, 1067 (Fed. Cir. 2003) (“[W]e have held that a claim ‘must be construed before determining validity, just as it is first construed before deciding infringement.’”) (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 997 n.7 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996)); *Amazon.com v. Barnesandnoble.com*, 239 F.3d 1343, 1351 (Fed. Cir. 2001) (“Because the claims of a patent measure the invention at issue, the claims must be interpreted and given the same meaning for purposes of both validity and infringement analyses.”).

27. For an extensive discussion of the various canons, see Holbrook, *supra* note 19.

28. See, e.g., Louis S. Silvestri, Note, *A Statutory Solution to the Mischiefs of Markman v. Westview Instruments, Inc.*, 63 BROOK. L. REV. 279, 303 (1997).

29. See, e.g., *DSU Med. Corp. v. JMS Corp.*, 471 F.3d 1293, 1297-98 (Fed. Cir. 2006).

30. Kenneth R. Adamo et al., *Survey of the Federal Circuit's Patent Law Decisions in 2000: Y2K in Review*, 50 AM. U. L. REV. 1435, 1603-05 (2001).

31. See, e.g., EDWARD D. MANZO, CLAIM CONSTRUCTION IN THE FEDERAL CIRCUIT (2008); Adamo et al., *supra* note 30 (discussing briefly some of the canons used to interpret claims).

there are hundreds of Federal Circuit opinions on claim construction, one significant and relatively recent case is *Phillips v. AWH Corp.*³² In *Phillips*, the Federal Circuit addressed the issue of claim construction en banc.³³ There, the Federal Circuit made it clear that claims are to be construed by first looking at the “intrinsic evidence.”³⁴ The “intrinsic evidence” includes the claim language at issue, the remainder of the specification portion of the patent,³⁵ and the record of correspondence between the patent applicant and the U.S. Patent Office (known as the “prosecution history”).³⁶ Despite its seemingly clear language, the Federal Circuit in *Phillips* did not establish any strict conventions for how judges should construe claims. For example, in the medical needle assembly illustration the specification may provide a single embodiment of the invention in which the “slot” is illustrated with a certain width. The intrinsic evidence and the canons do not provide a straightforward answer to whether the term “slot” must be limited to the disclosed width.

In addition to the legal component, the judge must understand the technical meaning of the terms to be construed. Claims often employ highly scientific language. Judges are obligated to construe patent claims from the perspective of a hypothetical person working in the same field of technology at the time a patent application claiming the invention was filed.³⁷ Because judges are rarely scientists, this legal fiction often raises difficulties. Claims are also subject to rigid Patent Office rules on formatting and grammar.³⁸ For instance, claims must be a single sentence, regardless of the difficulty of the invention.³⁹

Nearly all patents have multiple claims and frequently each case entails a dispute over multiple claim terms.⁴⁰ The litigants usually

32. 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

33. *Id.* at 1303. In a typical year, the Federal Circuit hears only one or two cases en banc.

34. *Id.* at 1319, 1324.

35. The specification is the body of the patent that includes drawings and a detailed description of how to make and use the invention. 35 U.S.C. § 112 (2006).

36. *Phillips*, 415 F.3d at 1317.

37. *Id.* at 1319.

38. U.S. PATENT & TRADEMARK OFFICE, U.S. DEP'T OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE § 608.01(i)-(o) (8th ed. rev. 2007).

39. *Id.* § 608.01(m). As a result, patent claims often use numerous commas and semicolons to capture the entire invention in one sentence.

40. *See, e.g.,* Pall Corp. v. Micro Separations, Inc., 66 F.3d 1211, 1220 (Fed. Cir. 1995) (“A

offer starkly different proposals as to what the phrases and words mean. Usually, the patentee will proffer a broad scope of the patent whereas the accused infringer will counter with a narrower one.⁴¹ Turning back to the example of the medical needle assembly patent, the patentee may propose that the term “slot” means an opening of any dimension whereas the accused infringer urges that the term be limited to openings of a set width. The divergent positions on claim scope are articulated by the parties with an eye towards the accused device (and sometimes in further view of the prior art).

The importance of claim construction cannot be overstated. Claim construction is often dispositive of the other issues in the patent litigation.⁴² Indeed, the very issue of infringement usually turns on simple issues of claim construction. Accordingly, in almost every patent case claim construction is a dispositive issue.

The Federal Circuit often reverses claim constructions from district courts. Reviewing *de novo*,⁴³ the Federal Circuit freely alters claim constructions of district courts. Scholars have intensively studied how often the Federal Circuit reverses decisions on the issue of claim construction.⁴⁴

A recent comprehensive study found that 38.2 percent of appealed cases from district courts included at least one wrongly construed claim term.⁴⁵ That study also pegged the overall reversal rate at

patent is infringed if any claim is infringed ... for each claim is a separate statement of the patented invention.”); 5A DONALD S. CHISUM, CHISUM ON PATENTS § 18.03[c] (2007).

41. A broad scope will maximize the chances of proving infringement. Occasionally, a patentee will propose a narrow scope if validity is of primary concern. A narrow scope decreases the likelihood the claim will be found invalid.

42. *See, e.g.*, *Gen. Mills v. Hunt-Wesson, Inc.*, 917 F. Supp. 663, 667 (D. Minn. 1996) (“[P]roper construction of a claim can make short work of the question of infringement.”).

43. *See Alloc, Inc. v. ITC*, 342 F.3d 1361, 1367 (Fed. Cir. 2003) (stating that claim constructions performed by the ITC are reviewed *de novo*); *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (*en banc*).

44. *See, e.g.*, Gretchen A. Bender, *Uncertainty and Unpredictability in Patent Litigation: The Time Is Ripe for a Consistent Claim Construction Methodology*, 8 J. INTELL. PROP. L. 175, 175-76 (2001); Chu, *supra* note 16; Kimberly A. Moore, *Are District Court Judges Equipped To Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 2-4 (2001) (finding district courts improperly construe appealed cases 33 percent of the time); Moore, *supra* note 3; Michael Saunders, *A Survey of Post-Phillips Claim Construction Cases*, 22 BERKELEY TECH. L.J. 215, 232-35 (2007); Andrew T. Zidel, *Patent Claim Construction in the Trial Courts: A Study Showing the Need for Clear Guidance from the Federal Circuit*, 33 SETON HALL L. REV. 711, 712-15 (2003) (finding that the high reversal rate has not improved in studied years).

45. Schwartz, *supra* note 9, at 248.

29.7 percent.⁴⁶ In other words, 29.7 percent of appealed cases had to be reversed or vacated and remanded due to an erroneous claim construction.⁴⁷ The difference between these rates (38.2 percent and 29.7 percent) reflects cases in which the judicial error did not affect the case result. District court judges with larger patent dockets were reversed at approximately the same rate as district court judges with smaller patent dockets.⁴⁸ In short, “accurate”⁴⁹ claim construction has been hard for judges, and the difficulty arises both from legal and technical issues.

B. Patent Litigation in the ITC

The ITC is an independent, quasi-judicial administrative agency. It is responsible for, among other things, adjudicating allegations of unfair competition and unfair acts in the importation of articles into the United States.⁵⁰ Under the Tariff Act of 1930, as amended, the ITC has authority to investigate infringement of U.S. patent rights by products imported into the United States.⁵¹ These ITC patent infringement investigations—known as Section 337 cases⁵²—have been increasingly utilized by patent holders in recent years.⁵³ As discussed in Section IV.A *infra*, Section 337 investigations have some different requirements from district court cases.

46. *Id.* at 249.

47. *Id.* For the federal appellate courts, the overall reversal rate was under 13 percent for civil nonprisoner appeals in 2007. See JAMES C. DUFF, ADMIN. OFFICE OF THE U.S. COURTS 2007 ANNUAL REPORT OF THE DIRECTOR tbl.5.8 (2007), available at <http://www.uscourts.gov/library/annualreports/2007/2007%20FINAL%20REPORT.pdf>.

48. Schwartz, *supra* note 9, at 255-56.

49. “Accuracy” as measured by affirmances by the Federal Circuit.

50. 19 U.S.C. § 1337(a)(1)(A)-(B) (2006).

51. *Id.*

52. 19 U.S.C. § 1337.

53. Chien, *supra* note 11, at 68 (stating that the number of ITC investigations tripled from 1996 to 2006).

On a substantive level,⁵⁴ the underlying patent law is essentially the same before the ITC⁵⁵ and the district courts.⁵⁶ Importantly, there are no differences in the law of claim construction.⁵⁷ The Federal Circuit does not afford any deference to the claim constructions of either the ITC or district courts.

Furthermore, litigation before the ITC is more like district court litigation than an administrative proceeding.⁵⁸ In fact, most procedural events in district court litigation and ITC litigation are very similar.⁵⁹ Though the ITC uses its own rules, they generally parallel the Federal Rules of Civil Procedure.⁶⁰ Discovery proceeds in a fashion similar to the way discovery proceeds in the federal courts, albeit at a quicker pace.⁶¹

Although the Federal Circuit hears appeals from the ITC just as it does appeals from district courts, the process of appealing an ITC decision differs from the process of appealing a district court

54. There is a jurisdictional difference between the fora. Jurisdiction in the ITC differs from classic personal jurisdiction in federal district courts. In the ITC, jurisdiction over the accused infringer is not required; the ITC has in rem jurisdiction over all articles imported into the United States. *See* DONALD K. DUVALL ET AL., *UNFAIR COMPETITION AND THE ITC* 40-41 (2007). Accordingly, service upon foreign accused infringers need not be perfected. Rather, a copy of the complaint can be mailed to them because the ITC has jurisdiction over the infringing goods. Thus, the ITC is an effective forum to assert infringement against entities such as foreign corporations that can evade service.

55. There are a few semantic differences between the fora. In the ITC, the matters are referred to as “investigations” rather than “lawsuits.” *See* 19 C.F.R. § 201.7 (2008) (granting the ITC authority to engage in investigations). And instead of referring to the parties as “plaintiff” and “defendant,” the parties in an ITC proceeding are referred to as “complainant” (the party initiating the investigation) and “respondent” (the party defending against the investigation). *See* 19 C.F.R. § 210.3 (2008) (defining “complainant” to be a person alleging a violation of Section 337 and “respondent” to be a person allegedly violating Section 337).

56. Kali N. Murray, *The Cooperation of Many Minds: Domestic Patent Reform in a Heterogeneous Regime*, 48 *IDEA* 289, 298 (2008).

57. *See generally* *Alloc, Inc. v. ITC*, 342 F.3d 1361, 1368 (Fed. Cir. 2003) (reporting the background law of claim construction in an appeal from an ITC determination and exclusively citing to Federal Circuit decisions that were appeals from district courts).

58. Robert A. Caplen, *Recent Trends Underscoring International Trade Commission Review of Initial Determinations and Federal Circuit Appeals of Final Commission Determinations Under Section 337 of the Tariff Act of 1930*, 17 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.* 337, 357 (2006).

59. DUVALL ET AL., *supra* note 54, at 24.

60. *Id.*

61. For example, discovery responses are typically due ten days after service (as opposed to thirty days under the Federal Rules of Civil Procedure). *See* Robert G. Krupka et al., *Section 337 and the GATT: The Problem or Solution?*, 42 *AM. U. L. REV.* 779, 795 (1993).

decision.⁶² An appeal from the ITC involves interim stages that are not present in an appeal from a district court. The ITC litigant typically petitions the Commission for review of the ITC initial determination.⁶³ The Commission is a political institution comprising six commissioners who serve staggered nine-year terms.⁶⁴ The Commission has the option of reviewing the substance of the ITC determination (including claim construction) and considers the appropriateness of the remedy in view of the public interest.⁶⁵ After the Commission's review, if a violation is found, the President of the United States has sixty days to intervene and set aside the decision of the Commission.⁶⁶ Only after this presidential review period expires can the Federal Circuit hear an appeal.

II. STUDY DESIGN AND METHODOLOGY

For the present study, data was collected relating to both ITC and district court claim construction. For the district court claim construction, an existing database was used.⁶⁷ For the ITC claim construction, a master ITC database was created that included information about three distinct events in an investigation: the institution of an investigation, the determination of claim construction, and the resolution on appeal.

The study comprises Federal Circuit cases issued between April 24, 1996 (the date of the Supreme Court's decision in *Markman*),⁶⁸ and June 30, 2008, including all precedential opinions, nonprece-

62. 19 U.S.C. § 1337(c) (2006); 28 U.S.C. § 1295(a)(6) (2006); *Holmes Group v. Vornado Air Circulation*, 535 U.S. 826, 834 (2002).

63. 19 C.F.R. § 210.54 (2008).

64. The commissioners are appointed by the President and must be approved by the Senate. 19 U.S.C. § 1330(a) (2006). No more than three sitting commissioners can be from either political party. *Id.*

65. DUVALL ET AL., *supra* note 54, at 33, 355 (stating that the Commission considers comments from other departments and agencies such as the Federal Trade Commission, the Department of Justice, and the Department of Health and Human Services).

66. 19 U.S.C. § 1337(j)(1); *see also* U.S. INT'L TRADE COMM'N, SECTION 337 INVESTIGATIONS: ANSWERS TO FREQUENTLY ASKED QUESTIONS 23 (2004), *available at* http://hotdocs.usitc.gov/docs/pubs/trade_remedy/pub3708.pdf.

67. Schwartz, *supra* note 9.

68. The date of *Markman* was chosen as the starting point because *Markman* made it clear that the court, not the jury, was responsible for claim construction. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996).

dential opinions, and Rule 36 affirmances.⁶⁹ Basic information was gathered for investigations over a slightly broader time period: those instituted by the ITC beginning January 1, 1995, through June 30, 2008, and assigned to certain ALJs. Information was gathered for all investigations managed by certain ALJs. Any ALJ who had at least one claim construction ruling reviewed by the Federal Circuit was included.⁷⁰ The Appendix contains detailed information on the methodology used to obtain the data. Overall, the master ITC database contains 243 investigations presided over by six ALJs and twenty-nine appellate decisions relating to twenty-six appealed investigations.

Admittedly, the universe of ITC claim construction appeals is small. Standing alone, the ITC data may be of limited significance and should be viewed cautiously. As discussed in Section IV *infra*, however, the ITC data must be considered in combination with the performance of the larger universe of district courts. As the ITC data is consistent with similar studies of district courts,⁷¹ it may be more significant.

III. RESULTS

Part III sets forth the results of the present study. Section A provides information about the claim construction reversal rate of the ITC. Section B discusses the ITC reversal rate based upon the number of claim constructions performed. Section C offers some

69. According to its local appellate rules of procedure, the Federal Circuit may affirm a decision of a lower court without any written opinion when “an opinion would have no precedential value” and one of the following is present:

- (a) the judgment, decision, or order of the trial court appealed from is based on findings that are not clearly erroneous;
- (b) the evidence supporting the jury’s verdict is sufficient;
- (c) the record supports summary judgment, directed verdict, or judgment on the pleadings;
- (d) the decision of an administrative agency warrants affirmance under the standard of review in the statute authorizing the petition for review; or
- (e) a judgment or decision has been entered without an error of law.

FED. CIR. R. APP. P. 36.

70. The following ALJs met these criteria and consequently were included in the study: Robert Barton, Charles Bullock, Sidney Harris, Paul Luckern, Janet Saxon, and Delbert Terrill.

71. See Schwartz, *supra* note 9.

incidental findings about the Commission's review of claim construction determinations.

A. ITC Claim Construction Reversal Rates

Overall, the Federal Circuit issued twenty-nine decisions (consisting of opinions and Rule 36 cases) relating to an ITC claim construction in the relevant period.⁷² Of these twenty-nine decisions, nine resulted in the investigation being reversed, or vacated and remanded.

How did the patent docket at the ITC compare with the dockets of the five busiest patent courts? Table I below provides information on patent cases heard by each per year.

Table I
Patent Dockets - International Trade Commission
and Most Active District Courts

Judicial District	No. Active ⁷³ Judges	Avg. No. Patent Cases/Judge (1996-2007) ⁷⁴	Avg. No. Patent Cases/Judge (2004-2007)
N.D. Cal.	14	14.5	15.6
C.D. Cal.	27	9.1	10.4
N.D. Ill.	22	6.2	6.5
D. Del.	4	27.0	34.8
S.D.N.Y.	28	3.8	4.5
ITC	4	4.4	7.2

72. Three investigations (392, 406, and 493) had two appeals each, and consequently, two decisions each. *See infra* notes 176-77.

73. The ITC currently has five administrative law judges. News Release, Int'l Trade Comm'n, Rogers Named New Administrative Law Judge at U.S. International Trade Commission (July 7, 2008) (reporting Robert K. Rogers as fifth ALJ), *available at* http://www.usitc.gov/ext_relations/news_release/2008/er0707ff1.htm. During the time period studied, the ITC had four administrative law judges. DUVALL ET AL., *supra* note 54, at 108 (indicating four ALJs). The number of authorized district court judges in 2006 was used as the measure of active district court judges. *See* 28 U.S.C. § 133 (2006).

74. Data on the number of patent lawsuits by district was obtained through a search of Court Strategic Profile in LexisNexis CourtLink, limited to Patent in the Nature of Suit field. *See* LexisNexis CourtLink, <http://www.lexisnexis.com/Courtlink/online/>.

Table I indicates that from 2004 until 2007, the ITC averaged more patent cases per judge than the Northern District of Illinois and the Southern District of New York. The other busy districts, and especially the District of Delaware, however, appear to have a heavier patent docket. The District of Delaware oversees by far the largest patent docket.⁷⁵

There are a number of issues to keep in mind with respect to Table I. The average number of patent cases handled per judge was tabulated more precisely for the ITC investigations than the district court lawsuits. Each ITC investigation was checked individually to verify that it involved a patent dispute. Thus, the 4.4 and 7.2 entries for the ITC are exact. On the other hand, the district court information was located in aggregate form using the CourtLink service.⁷⁶ CourtLink gathers data based upon the Civil Action Coversheet that must be completed when filing each lawsuit. It is likely that some of the cases identified as patent cases were miscoded.⁷⁷ The district court information also includes cases that were transferred or consolidated with other cases, which results in some double counting.⁷⁸ Further, the district courts utilize senior judges and occasionally magistrate judges to supplement the number of active judges handling patent cases.⁷⁹ The ITC, in contrast, is limited to administrative law judges.⁸⁰ To calculate the average workload, senior and

75. The Eastern District of Texas is not one of the most active district courts for the period 1996-2007. Its popularity for patent litigation is only recent. See Roderick R. McKelvie, *Forum Selection in Patent Litigation: A Traffic Report*, INTELL. PROP. & TECH. L.J., Aug. 2007, at 1, 2.

76. LexisNexis CourtLink, *supra* note 74.

77. Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L. REV. 237, 261 (2006) (finding that approximately 10 percent of cases identified as patent cases were miscoded).

78. *Id.* (finding that approximately 10 percent of cases identified as patent cases were duplicates).

79. Although senior judges are entitled a reduced caseload, from July 1, 2005 to June 30, 2006, senior judges disposed of 17 percent of all terminated cases. Frederic Block, *Senior Status: An "Active" Senior Judge Corrects Some Common Misunderstandings*, 92 CORNELL L. REV. 533, 540 (2007); John B. Pegram, *Should the U.S. Court of International Trade Be Given Patent Jurisdiction Concurrent with That of the District Courts?*, 32 HOUS. L. REV. 67, 88 (1995); Schwartz, *supra* note 9, at 270 n.225 (finding numerous cases in which magistrate judges had construed patent claims and entered final judgment).

80. ITC investigations must be handled by administrative law judges. 19 C.F.R. § 207.102(c) (2008) (“[T]he Commission shall appoint an administrative law judge to oversee the proceeding”). Administrative law judges are not Article III judges and thus do not have

magistrate judges were ignored because it was not feasible to quantify their involvement. Each of these factors pushes the actual average patent caseload lower for district court judges than the number reported above in Table I.

Moreover, district court judges are under less pressure to resolve cases quickly. The average ITC investigation was pending for substantially less time than the average district court case.⁸¹ Somewhat relatedly, ITC Section 337 cases settle at a lower rate than district court cases.⁸² Thus, the average ITC investigation is handled more quickly than the average district court investigation and is more likely to reach a decision on the merits. Although the ALJs on the ITC may be responsible for fewer patent cases than busy district court judges, they may have more substantive interaction, including claim construction, with each one.⁸³

Having reviewed the magnitude of the patent dockets, the reversal rates for the various courts and the ITC are now described. Below are the reversal rate for the ITC and the reversal rate over the same period for the busiest five district courts.

life tenure. Consequently, there is no title of senior status ALJ. *See generally* 5 U.S.C. § 3105 (2006).

81. Chien, *supra* note 11, at 64 (finding adjudicated ITC investigations average fourteen months whereas adjudicated district court patent cases average twenty-six months).

82. *Id.* at 100 tbl.10 (reporting that 68 percent of district court cases settle whereas 42 percent of ITC investigations settle).

83. As a qualitative measure, the ITC's claim construction determinations typically were extremely elaborate. *See, e.g.*, Certain Mobile Telephone Handsets, Wireless Communication Devices, and Components Thereof, Inv. No. 337-7A-578, Final Initial and Recommended Determination (Jan. 2008) (containing seventy-nine pages devoted exclusively to claim construction).

Table II
Claim Construction Reversal Rates 1996-2008 –
International Trade Commission and Most Active District
Courts

Judicial District	Percent of Claim Construction Appeals Reversed, Vacated, and/or Remanded	No. of Federal Circuit Claim Construction Appeals
N.D. Cal.	28.7%	87
C.D. Cal.	44.3%	79
N.D. Ill.	31.0%	71
D. Del.	20.0%	60
<u>S.D.N.Y.</u>	<u>25.5%</u>	<u>51</u>
Average	30.7%	69.6
ITC	31.0%	29

Table II shows that the average reversal rate for the busiest five district courts was 30.7 percent. The ITC's reversal rate was slightly higher at 31.0 percent.⁸⁴ Three—the Northern District of California, the District of Delaware, and the Southern District of New York—had lower reversal rates than the ITC. One, the Northern District of Illinois, had roughly the same reversal rate. The other district, the Central District of California, had a reversal rate higher than the ITC.

B. Claim Construction Experience and Reversal Rates

When new ALJs are appointed, they typically begin with no experience construing patent claims.⁸⁵ As they handle investiga-

84. The data represent the entire population of appeals of ITC investigations and cases from these particular districts. For populations, statistical tests may have limited value. See generally Richard A. Berk, Bruce Western & Robert E. Weiss, *Statistical Inference for Apparent Populations*, 25 SOC. METHODOLOGY 421 (1995). *Chi-square* and Fisher's exact tests were performed on these two populations and the p-value was 0.974 and 1.00, respectively. Consequently, the null hypothesis that the percentages in each group are the same cannot be rejected.

85. DUVALL ET AL., *supra* note 54, at 21. For example, ALJ Terrill's prior experience was as an ALJ with the Federal Energy Regulatory Commission. See News Release, U.S. Int'l Trade Comm'n, Terrill Named New Administrative Law Judge at U.S. International Trade

tions, the ALJs develop significant patent investigation experience. If judges improved at claim construction as they gained experience, one would expect that the reversal rate would decrease as the ALJ construed more claims. Specifically, ALJs with more investigations that proceeded through claim construction should be reversed less than ALJs with fewer investigations. Table III below illustrates the reversal rates of all ALJs broken down by the number of claim constructions previously decided.

Table III
Claim Construction Reversal Rates

No. of Prior Investigations in Which Claims Were Construed	No. Affirmed	No. Reversed or Vacated and Remanded	No. Not Appealed	Percent Reversed or Vacated and Remanded
0	1	0	2	0%
1-3	3	1	5	25%
4-9	0	2	7	100%
10+	16	6	32	27.3%

As Table III illustrates, one ALJ's first attempt at claim construction was appealed to the Federal Circuit and affirmed. The first claim construction decisions of two other ALJs were not appealed. Three of the ALJs included in the present study (Judges Harris, Luckern, and Saxon) had been ALJs on the ITC for over ten years and already performed more than ten claim constructions before the beginning date of the study. These ALJs were coded in the "10+" category for their first appeal in the relevant time period. Judges with between one and three claim constructions under their belts were reversed at a rate of 25.0 percent. Judges who had performed between four and nine claim constructions were reversed on all of the appeals. Judges with more than ten prior claim constructions

Commission (May 30, 2001), available at <http://www.usitc.gov/er/nl2001/ER0530Y1.htm>. ALJ Bullock and ALJ Charneski served as ALJs with the U.S. Environmental Protection Agency. DUVALL ET AL., *supra* note 54, at 742-43. Only ALJ Luckern, who was a patent examiner and patent litigator, had any prior patent experience. *Id.* at 743.

were reversed at 27.3 percent, slightly lower than the overall ITC reversal rate of 31.0 percent.

Table III also provides the number of investigations in which the claims were construed and the parties did not appeal. There were a substantial number of non-appealed investigations, many of which were due to settlements. The relatively large number of non-appealed investigations highlights the inherent difficulty of using reversal rates as a measure. Reversal rates only assess an ALJ's performance on investigations in which the parties chose to appeal.

C. Claim Construction Modifications by the Commission

The Commission has recently taken an active role in reviewing the ALJ's claim constructions. The Commission has an opportunity to review ITC determinations before the Federal Circuit hears an appeal. Table IV below summarizes the Commission's claim construction review.

Table IV
Claim Construction Alterations by the Commission⁸⁶

	1996-2000	2001-2004	2005-2007
No. claim constructions reviewed	12	22	28
No. claim constructions altered	2	3	12
Percent cases altered	16.7%	13.6%	42.9%

As presented in Table IV, the percentage of claim constructions altered or modified by the Commission has greatly increased in recent years. Between 1996 and 2004, the Commission seldom altered an ALJ's claim construction.⁸⁷ Since 2004, the Commission has altered an ALJ's claim construction in 42.9 percent of the

86. The data only includes claim constructions by the six ALJs in the ITC investigation database. *See supra* Part II. These ALJs handled 84 percent of the ITC investigations during the relevant time period.

87. *Accord* Caplen, *supra* note 58, at 377-79 (describing two claim constructions revised by the Commission).

reviewed investigations. The reason for the difference is unknown and worthy of future study.

Table V illustrates the Federal Circuit's reversal rates for modified and unmodified claim constructions.

Table V
Reversal Rates for Altered and Unaltered Claim Constructions

	No. Affirmed	No. Reversed, Vacated, and/or Remanded	Percent Reversed, Vacated, and/or Remanded
Unaltered	14	5	26.3%
Altered	6	4	40.0%

Table V shows that in nineteen investigations, the Commission either declined to review the ALJ's claim constructions or reviewed and adopted them. In those nineteen cases, the claim construction reversal rate was 26.3 percent. Thus, in appeals of investigations in which both the ALJ and the Commission agreed, only 26.3 percent were reversed, vacated, and/or remanded. In ten investigations, the Commission altered the ALJ's initial determination on claim construction. Forty percent of those ten investigations were reversed, vacated, and/or remanded. In at least two of the reversals, the ALJ's original claim construction was correct while the Commission's alteration was erroneous.⁸⁸ In others, either the ALJ's initial claim construction was erroneous⁸⁹ or it was impossible to evaluate the ALJ's initial claim construction from the Federal Circuit opinion.

IV. ANALYSIS AND IMPLICATIONS

This study appears to show a relatively high reversal rate for the patent-experienced ITC.⁹⁰ The reversal rates for the ITC appear

88. Investigation numbers 395 and 493.

89. *See, e.g.*, investigation numbers 396 and 533.

90. Although a 30 percent reversal rate appears quite high, this Article does not show that the claim construction reversal rate is high relative to the reversal rates in other complex

roughly in line with the reversal rates for patent-busy district courts. But it is possible that their seeming similarity is misleading. Comparing claim construction reversal rates between the ITC and district courts may be like comparing apples-to-apples, or it may be like apples-to-oranges. An apples-to-oranges comparison might suggest accounts for the data distinct from those considered for district court reversal rates. This Section explores these possibilities. This Section also sets forth repercussions of the study if the reversal rates are deemed comparable.

A. Explanations for the ITC Reversal Rate

There are several reasons why comparing reversal rates between the ITC and district courts must be done with caution. First, the population of ITC appeals may be too small for meaningful comparison. Second, the merits of the appeals decided by the Federal Circuit may be different for cases appealed from the ITC and from district courts. Procedural and substantive differences between the ITC and district courts affect the litigation. Investigations in the ITC are different in several respects from lawsuits in the district courts.⁹¹

These differences influence the disputes that progress through each forum, including, for example, which parties choose each forum. Further, case-selection effects may differ for the two fora.⁹² The cases that reach appealable judgment may be different for cases originating in the ITC and in the district courts. Indeed, at each step in the litigation process, there is a further filtering of cases—through settlement or dismissal—that may be related to the merits of the cases. If the cases that reach the Federal Circuit from the ITC differ on the claim construction merits from the cases reaching the Federal Circuit from district courts, comparison between reversal rates of the two may be inappropriate.

areas of law. Jeffrey A. Lefstin, *Claim Construction, Appeal, and the Predictability of Interpretive Regimes*, 61 U. MIAMI L. REV. 1033, 1038-39 (2007).

91. See DUVALL ET AL., *supra* note 54, at 22 (describing some of the differences between investigations in the ITC and lawsuits in district courts).

92. For a detailed discussion of the potential selection effect and other difficulties in studying reversal rates, see Schwartz, *supra* note 9, at 241-44.

1. *The Small Number of ITC Appeals*

Historically, there have not been a large number of Section 337 cases. As a result, the dataset is small. With such a small number of judges and disputes, small numerical fluctuations may be misperceived as dramatic differences in terms of percentages. If in the near future the Federal Circuit affirms a handful of decisions in a row (or alternatively, reverses a handful of decisions in a row), the reversal rate could change substantially. In five or ten years from now, the question will be: does the data still look the same?

The small number of ITC appeals exacerbates another potential limitation of the data: the complex nature of real world litigation. Because actual litigation cannot be easily and effectively categorized, it is difficult to compare across disputes. The underlying facts and merits of each case are different.⁹³ The patents and accused products are different in each investigation. The small number of ITC appeals limits the ability to control for variables.

2. *Potential Differences in Adjudication of Patent Disputes*

As discussed in Section I.B *supra*, proceedings in the ITC are similar to those in district courts, although some notable differences exist. These differences may affect which forum a patentee chooses, how the litigation proceeds within the forum, and which adjudicated disputes are appealed. The major pillars of the applicable law, however, are the same. The canons of claim construction are the same in both fora. The same actor—a judge—construes the claims in both fora. Nevertheless, the timing of when claim construction occurs often differs.

Although the law is the same, the procedures for claim construction in the ITC differ from some district court judges. The timing of the ITC's claim construction process is nearly the same in all investigations. Claim construction, infringement arguments, and evidence typically are heard in a single hearing⁹⁴ occurring approximately eight months after the investigation is opened.⁹⁵ Most ALJs

93. John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 202-05, 250-51 (1998).

94. The ALJs make all determinations involving infringement and validity as juries are not permitted in the ITC.

95. G. Brian Bussey, *An Introduction to Section 337 and the United States International*

at the ITC do not hold a separate *Markman* or claim construction hearing.⁹⁶ In contrast, in district court claim construction, different courts and judges have their own preferred way of construing claims. Most commonly, district courts resolve claim construction (i) via a separate *Markman* hearing during which no evidence of infringement is introduced,⁹⁷ and (ii) in connection with deciding summary judgment.⁹⁸ A vast majority of district courts construed the disputed claims prior to trial.⁹⁹ Some district courts decide claim construction at a bench trial or in connection with evidence of infringement. The Federal Circuit stated that claim construction can be performed at any time.¹⁰⁰

The timing of claim construction may affect reversal rates or appeal rates.¹⁰¹ For example, to construe claims, the court should primarily consider the intrinsic evidence—the claim language, the

Trade Commission, 910 PLI/Pat 807, 824 (2007).

96. GROSSMAN & HOFFMAN, *supra* note 14, at 565; Chien, *supra* note 11, at 102-03; Neil Edward L. Santos, III, Dennis S. Fernandez & Nilesh D. Patel, *What IP Holders Ought to Know About the ITC and the District Courts*, 7 J. HIGH TECH. L. 173, 178 (2007); Arthur Wineburg & Colleen Coyle, *The Ins and Outs of an ITC Section 337 Case*, IP LAW 360, Apr. 14, 2008, at 4, available at <http://www.akingump.com/communicationcenter> (keyword search for “The Ins and Outs”; then follow “The Ins and Outs of An ITC Section 337 Case” hyperlink); cf. Peter Kimball, *Finding the Time to be More Efficient: Markman Hearings and Appeal in Section 337 Proceedings*, 21 337 REPORTER 101 (2005); Steven S. Yu, *Markman Hearings in Patent-Based Section 337 Investigations*, 20 337 REPORTER 95 (2004). *But see* DUVALL ET AL., *supra* note 54, apps. J, K, L (illustrating that only ALJ Bullock’s exemplary schedule includes a *Markman* hearing). Even without a *Markman* hearing, the ITC occasionally requires prehearing exchange of claim construction contentions.

97. Several districts have detailed local patent rules that require separate claim construction briefing and hearings. *See, e.g.*, N. DIST. OF CAL., PATENT L.R. 4-5, 4-6; E. DIST. OF TEX., PATENT L.R. 4-5, 4-6; N. DIST. OF GA., PATENT L.R. 6.5, 6.6; W. DIST. OF PA., PATENT L.R. 4; S. DIST. OF TEX., PATENT L.R. 4.5, 4.6; E. DIST. OF N. CAROLINA, PATENT L.R. 304.5, 304.6.

98. *See* William F. Lee & Anita K. Krug, *Still Adjusting to Markman: A Prescription for the Timing of Claim Construction Hearings*, 13 HARV. J.L. & TECH. 55, 57 (1999) (arguing that summary judgment motions are an optimal time for resolving claim construction). Summary judgment, known as summary determination in the ITC, is much less frequent in the ITC.

99. Rebecca N. Eyre et al., *Patent Claim Construction: A Survey of Federal District Judges* (2008), available at [http://www.fjc.gov/public/pdf.nsf/lookup/patclaim.pdf/\\$file/patclaim.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/patclaim.pdf/$file/patclaim.pdf) (finding that 79 percent of judges construed claims in a separate proceeding and only 3 percent of district court judges construed claims at trial); *see also* American Bar Association Section of Intellectual Property Law 1999 Markman Survey, INTELL. PROP. L. NEWSL., Spring 2000, at 12.

100. *See* Lee & Krug, *supra* note 98, at 59-60 (2000).

101. *Id.* at 67-69; Lefstin, *supra* note 90, at 1061-64. No empirical research has been published on the effect, if any, of claim construction timing on its resolution.

specification, and the prosecution history.¹⁰² The accused product is legally irrelevant to claim construction.¹⁰³ If the district court hears evidence of the accused product, it may become tainted and permit the accused product to factor into its claim construction analysis. In these instances, a results-oriented judge may use claim construction to reach the “right” result.¹⁰⁴ On the other hand, viewing the accused product may provide further context for the claim construction analysis.¹⁰⁵ The additional context may aid non-technologically inclined judges.

Another potentially significant difference between the fora is that a government staff attorney is assigned to every ITC investigation. At the onset of an investigation, the case is assigned to an ITC staff attorney and an ALJ.¹⁰⁶ The staff attorney, from the Office of Unfair Import Investigations, represents the “public interest” in a fair and reasoned adjudication of the investigation.¹⁰⁷ The ITC staff attorneys frequently have patent experience or advanced technical degrees.¹⁰⁸ The ITC staff attorneys actively participate in Section 337 cases.¹⁰⁹ For instance, the ITC staff attorney can take discovery,¹¹⁰ file briefs on the issues (including claim construction), and participate at the hearing.¹¹¹ The ALJs weigh heavily the opinion of the ITC staff attorneys.¹¹² The presence of a neutral party in claim construction theoretically should make the ITC more

102. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc).

103. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985) (en banc) (stating that a claim is not to be construed in light of the accused device).

104. R. Polk Wagner & Lee Petherbridge, *Did Phillips Change Anything? Empirical Analysis of the Federal Circuit's Claim Construction Jurisprudence* (unpublished manuscript, on file with author).

105. *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1326 (Fed. Cir. 2006).

106. See DUVALL ET AL., *supra* note 54, at 108 (explaining the process for assigning cases to ALJs).

107. See *id.* at 477; U.S. INT'L TRADE COMM'N, *supra* note 66, at 2.

108. GROSSMAN & HOFFMAN, *supra* note 14, at 528; Kimball, *supra* note 96, at 106.

109. DUVALL ET AL., *supra* note 54, at 23-24, 477-78.

110. The ITC staff attorney can, for example, ask questions of deponents and request documents. *Id.*

111. *Id.*; Schaumberg, *supra* note 14.

112. DUVALL ET AL., *supra* note 54, at 477-78; Jerold B. Murphy, *A Statistical Comparison of the Staff Attorneys' Position on Disputed Issues and the Administrative Law Judges' Decisions on Such Issues*, 21 337 REPORTER 53, 54 (2005) (finding 65.6 percent agreement between ALJ and ITC staff attorney on claim construction, and 89.2 percent agreement on other disputed issues).

accurate than the district court in reaching an objectively correct claim construction.

Litigation in the ITC proceeds quickly relative to district court standards. In fact, the ITC is known as the fastest patent court in the country.¹¹³ Under ITC rules, investigations are to be resolved expeditiously and most are completed within twelve to fifteen months.¹¹⁴ Due to the expedited time frame, the ALJ sets a short fact and expert discovery period, a deadline for filing of prehearing briefs, and a hearing date.¹¹⁵ A hearing is typically scheduled approximately eight months after initiation of the complaint.¹¹⁶ After the hearing and associated briefing (which includes briefing on claim construction), the ALJ issues an initial determination. The initial determination often occurs within a year of the opening of the investigation.¹¹⁷ The short timetable requires litigants to select a claim construction theory earlier in ITC litigation than in most district court litigation.¹¹⁸ It is possible that locking claim construction positions earlier makes the arguments weaker, both in formulation and in substance. If so, the merits of claim construction disputes that reach resolution in the ITC may be weaker than those that occur in district courts, and consequently the Federal Circuit may be more likely to reverse.

Separately, the ITC may be more biased in favor of patentees than district courts.¹¹⁹ The ITC's mission is to protect domestic

113. Steven Andersen, *IP's Little-Known 'Rocket Docket' Comes of Age*, CORP. LEGAL TIMES, Oct. 2004, at 24, 24.

114. See 19 U.S.C. § 1337(b)(1) (2006); 19 C.F.R. § 210.2 (2008) ("It is the policy of the Commission that, to the extent practicable and consistent with requirements of law, all investigations and related proceedings under this part shall be conducted expeditiously. The parties, their attorneys or other representatives, and the presiding administrative law judge shall make every effort at each stage of the investigation or related proceeding to avoid delay."); U.S. INT'L TRADE COMM'N, *supra* note 66, at 21; see also Bryan A. Schwartz, *Where the Patent Trials Are: How the U.S. International Trade Commission Hit the Big Time as a Patent Litigation Forum*, INTELL. PROP. L. NEWSL., Winter 2002, at 1.

115. See DUVALL ET AL., *supra* note 54, at 179-80.

116. Bussey, *supra* note 95, at 823-24.

117. See DUVALL ET AL., *supra* note 54, at 319 (stating that ALJs generally set a target date for completion of the investigation to occur within twelve to fifteen months of the institution of the investigation).

118. Litigants must also commit to an early claim construction theory in district courts with local patent rules (such as the Northern District of California) and in preliminary injunction cases.

119. Some support exists for the proposition that juries in patent cases rule against foreign parties more often than against domestic parties. Kimberly A. Moore, *Xenophobia in*

industries from unfair competition.¹²⁰ District courts have no similar mission or mandate. Given its mission, the ITC may be more likely to rule in favor of the patentee than district courts in a given case. Empirical studies are mixed on whether the ITC rules in favor of patentees more often than the district courts.¹²¹ If the Federal Circuit has an institutional bias for or against patentees,¹²² the Federal Circuit's bias could significantly affect the reversal rates of the different fora. For example, if the Federal Circuit was biased in favor of accused infringers, one would expect that district court decisions would be affirmed at a higher rate than the ITC's if the district court rules in favor of the accused infringers more often than the ITC.

Finally, litigated disputes in the ITC and district courts may settle at different rates. The settlement rate in the ITC is much lower than that of patent lawsuits in the district courts.¹²³ The only ITC remedy is equitable¹²⁴ and in many cases the exclusion order is indivisible, meaning the parties cannot split the difference between their positions, much like they can with monetary damages.¹²⁵ The lack of divisibility of injunctive relief¹²⁶ may reduce opportunities for settlement.¹²⁷

American Courts, 97 NW. U. L. REV. 1497 (2003).

120. DUVALL ET AL., *supra* note 54, at 1-2. The ITC, as an administrative agency, may be more susceptible to political pressure. See Robert Hahn & Hal Singer, *Assessing Bias in Patent Infringement Cases: A Review of International Trade Commission Decisions*, 21 HARV. J.L. & TECH. 457, 463-64 (2008).

121. *Compare* Chien, *supra* note 11, at 70-71, *with* Hahn & Singer, *supra* note 120.

122. *Cf.* Moore, *supra* note 3, at 241 (“[T]he Federal Circuit is just as likely to reverse a claim construction appeal which was won by the infringer at the district court level as one won by the patentee.”).

123. Chien, *supra* note 11, at 59-62.

124. Although damages cannot be awarded by the ITC, the parties are free to include monetary payments as part of settlements.

125. See Matthew Sag & Kurt Rohde, *Patent Reform and Differential Impact*, 8 MINN. J. L. SCI. & TECH. 1, 22-30 (2007) (discussing how entities decide whether to settle or litigate a patent case).

126. The lack of damages probably dissuades law firms from taking ITC investigations on a contingent basis.

127. Judges in both the ITC and district courts may pressure the parties to settle. Eric Herman, *Charting the Yays and Nays in Federal Court*, CHI. LAW., Mar. 1996, at 1 (“[I]f [judges] have a really tough case, they can put tremendous pressure on the parties to settle so there won't be an appealable order.”). Investigations may settle in front of a particular ALJ that would not settle in front of a different judge. Rebekah Osborn, *Settlement Patterns in 337 Investigations: Administrative Law Judge Influence?*, 22 337 REPORTER 101, 106-07 (2006) (finding that the different settlement ground rules of the ALJs do not appear to significantly

3. *Potential Differences in Cases that Are Brought in the ITC*

The type of cases brought in the ITC and brought in district courts may differ. Each forum has a potential selection bias. In other words, disputes that mature into ITC investigations, or alternatively, into district court cases, may not be representative of the universe of disputes that can be brought in those respective fora. Investigations and cases that are brought may be the closer cases in which the parties cannot work out their differences without authoritative intervention.

It is possible that the strength of this selection bias differs according to fora.¹²⁸ It is logical to believe that litigants consider the substantive and procedural differences between the fora in selecting where to bring suit. Moreover, the prerequisites for litigation differ between the fora. There are several requirements of Section 337 cases that differ from the ordinary district court patent litigation including the requirements of importation and domestic industry.¹²⁹

influence settlement rates). District court judges may stall a case to induce parties to settle, whereas the judges on the ITC do not have the option of deferring action on a case to induce settlement. 19 C.F.R. § 210.2 (2008) (setting as a policy that “all investigations and related proceedings ... shall be conducted expeditiously”). Although some district court judges may use this maneuver, Herman, *supra*, at 1, the Commission has strict timetables for the resolution of investigations. 19 C.F.R. § 210.2 (2008).

128. The ITC investigations may be more internally homogenous than patent litigation in the district courts. Some of the similarity of ITC litigants arises because of the additional requirements for patent litigation in the ITC and the active participation of the ITC attorney.

129. For example, the complainant must prove importation and domestic industry. 19 U.S.C. § 1337(a)(1)-(2) (2006). Importation requires a sale outside the United States for the purposes of importation, or a sale within the United States after importation of an allegedly infringing product. 19 U.S.C. § 1337(a)(1)(B). Even a single, insignificant importation satisfies the requirement. *See In re Certain Condensers, Parts Thereof and Products Containing Same, Including Air Conditioners for Automobiles*, Inv. No. 337-TA-334, USITC Pub. 3063, at 23 (Sept. 1997). Section 337 also requires proof that a domestic industry exists within the United States. The domestic industry requirement is low, permitting proof of either “(A) significant investment in plant and equipment; (B) significant employment of labor or capital; or (C) substantial investment in [the patent’s] exploitation, including engineering, research and development, or licensing.” 19 U.S.C. § 1337(a)(3)(A)-(C). The last item, investment in licensing, has permitted entities that expend money litigating the patent-at-issue to satisfy the domestic injury requirement. *In re Certain Digital Systems Satellite (DSS) Receivers and Components Thereof*, Inv. No. 337-TA-392, USITC Pub. 3418, at 10-11 (Apr. 2001). The domestic injury requirement is often broken into two prongs: economic and technical. DUVALL ET AL., *supra* note 54, app. C at 633. The economic prong requires U.S. expenditures and the technical prong measures if the complainant’s U.S. activities relate to the patent-at-issue. *Id.* at 633-34. Although the importation and domestic industry requirements are easy to meet, there is some evidentiary showing required. Not every accused infringer will import products

Not every patentee can meet the additional requirements to litigate in the ITC. Consequently, many patent disputes must be brought in district courts and cannot be brought in the ITC. However, there is no reason to believe that these differences affect the difficulty of claim construction of the patents in dispute.¹³⁰

Other important metrics may differ in the Section 337 cases, and it is not known if these affect claim construction difficulty. As for damages, monetary compensation cannot be recovered in an ITC proceeding. The ITC can only provide the equitable relief of exclusion orders¹³¹ and cease-and-desist orders.¹³² To recover damages, the patent holder must bring suit in the district court. It should be understood that the same dispute can be and often

into the United States. In many cases, the parties stipulate to importation. *See* Bussey, *supra* note 95, at 817-18. Some accused infringers will make, use, and sell products only within the United States and consequently cannot be hauled before the ITC. Further, although the hurdle is low, not every patentee will be able to show domestic injury.

130. In addition, the patentees that voluntarily select the ITC may be different from those that choose to litigate solely in district courts. These differences may relate to the merits of the dispute. More patent disputes requiring full adjudication may be brought in the ITC. Patentees choosing the ITC must invest significant money upfront to prepare a thorough complaint. The initial complaint in the ITC must be more detailed than typical patent infringement complaints in the federal courts because under ITC rules, the complaint must plead the specific facts that form the substance of the alleged infringement. 19 C.F.R. § 210.12 (2008). In contrast, federal courts require mere notice pleading. Notice pleading only requires a short and plain statement of the claim and a showing that the pleader is entitled to relief. FED. R. CIV. P. 8(a). ITC complaints typically require substantial due diligence and include detailed factual assertions including charts specifying the proposed claim construction of asserted patent claims and the alleged infringing activity. Wineburg & Coyle, *supra* note 96. Patentees that elect the ITC option understand that substantial legal expenses will be quickly incurred. Schwartz, *supra* note 114, at 1 (noting that Section 337 cases are “heavily lawyered”). Patentees expecting a quick and low cost settlement may choose to file in the district courts. District court litigation typically has a slower schedule and lower initial costs. Although this is a difference between the fora, the cases appealed should compensate for the difference in seriousness of disputes. It is possible that the litigation resources of the parties affect the reversal rate. Even if the heightened prefiling requirements mean that a greater percentage of ITC investigations than district court cases are meritorious, the appeal and settlement rates should somewhat offset any relative bias. In both fora, serious disputes are most likely to be litigated through appeal. Because district court cases pend longer on average, there is more time for district court disputes to settle.

131. 19 U.S.C. § 1337(d)-(e) (2006). The ITC can issue two types of exclusion orders: a limited exclusion order directed to the particular infringer, and a general exclusion order that applies to all infringing goods, regardless of source. *See* GROSSMAN & HOFFMAN, *supra* note 14, at 531.

132. 19 U.S.C. § 1337(f) (2006). The parallel district court litigation can be stayed by the ITC respondent. 28 U.S.C. § 1659(a) (2006).

is brought in both fora—the ITC and a federal district court.¹³³ Counterbalancing the lack of damages, injunctions are awarded under a more liberal standard in the ITC.¹³⁴ The Supreme Court recently clarified that injunctions in district court patent litigation should only be awarded after consideration of the four-part traditional equitable test.¹³⁵ The ITC rejected the argument that it must follow the four-part equitable test before entering an injunction.¹³⁶

The lack of monetary damages causes only certain types of patent holders to seek out adjudication before the ITC.¹³⁷ For example, others have shown that ITC investigations are heavily focused on computing technologies.¹³⁸ Previous studies of district court litigation have shown much lower percentages of computing technology cases.¹³⁹ Further, 86 percent of ITC investigations include at least one foreign respondent.¹⁴⁰ It is unknown if any of

133. Parallel ITC and district court litigation are common. Chien reports that 65 percent of ITC cases involve patents that were also subject to a district court lawsuit involving the same parties. Chien, *supra* note 11, at 92-93.

134. As for defenses, accused infringers are precluded from raising a small number of defenses. For example, a defense under 35 U.S.C. § 271(g) to a category of patents known as “process patents” is not available to respondents before the ITC. *Kinic Co. v. Int’l Trade Comm’n*, 362 F.3d 1359, 1363 (Fed. Cir. 2004) (“[T]he defenses established in § 271(g) are not available in § 1337(a)(1)(B)(ii) actions.”); Chien, *supra* note 11, at 99; Neil F. DuChes, *Synopsis of the Extraterritorial Protection Afforded by Section 337 as Compared to the Patent Act*, 14 MICH. TELECOMM. & TECH. L. REV. 447 (2008).

135. *eBay v. MercExchange*, 547 U.S. 388 (2006). The four-part test requires (1) irreparable injury; (2) the inadequacy of remedies at law; (3) the balance of the hardships; and (4) the public interest not be disserved by a permanent injunction. *Id.* at 391.

136. *In re Baseband Processor Chips*, Inv. No. 337-TA-543, 2007 ITC LEXIS 621 (ITC June 2007); see Chien, *supra* note 11, at 78.

137. The types of patentees that choose the ITC may have changed over time. After the *eBay* decision, more litigants may have chosen the ITC, believing that the chances of injunctive relief are better than in district courts. See GROSSMAN & HOFFMAN, *supra* note 14, at 192-93 (Supp. 2007); Edward H. Rice & Marina N. Saito, *After eBay: Can the ITC Offer Better Remedies than District Courts?*, 19 INTELL. PROP. LITIG. 2 (2008). Clearly, the number of investigations handled by the ITC has rapidly increased in the past few years. Caplen, *supra* note 58, at 354-55; Hahn & Singer, *supra* note 120, at 460 fig.1. If there is a significant change in types of litigants over time that affects the merits of the case, it will disrupt an empirical analysis of reversal rates.

138. Catherine Y. Co, *How Valuable Are the Patents Behind Section 337 Cases?*, 27 WORLD ECON. 525, 533-35 (2004) (indicating most ITC investigations involve computing technologies).

139. Allison & Lemley, *supra* note 93, at 217 (indicating that 9 percent of district court litigation from 1989 through 1996 involved computing technologies).

140. Chien, *supra* note 11, at 88 tbl.2.

these differences affect the likelihood of a claim construction reversal.¹⁴¹

4. *Potential Differences in the Disputes that Are Appealed*

In patent litigation in general, a high percentage of fully adjudicated disputes are appealed. This is because the appeal cost is small relative to both the cost to litigate in the ITC or trial court¹⁴² and the amount in dispute.¹⁴³ Once an appeal has been filed with the Federal Circuit, few disputes are settled.¹⁴⁴

The factor influencing appeal may differ between the two fora, and this difference may make a comparison of reversal rates difficult. Equitable relief may be more likely to be stayed pending appeal in the district courts. The Federal Circuit can stay any injunction or exclusion order.¹⁴⁵ In reality the Federal Circuit is more likely to stay a district court injunction than an ITC exclusion order because the former plaintiff can be compensated, albeit imperfectly by an award of money damages, and the latter cannot be so compensated.¹⁴⁶ Further, when the complainant prevails at

141. In addition, the financial resources that the parties choose to expend on litigation costs varies case to case and party to party. The litigants to ITC investigations hail from numerous different countries. Chien, *supra* note 11, at 90-91. Entities from these countries, which include Canada, China, Germany, Japan, Korea, and, of course, the United States, may have vastly different views on how to litigate disputes. But the government staff attorney involved in the ITC investigations may undercut the resource differences. The government attorney, representing the public interest, theoretically aids the ITC in reaching the correct determination despite any imbalances in party resources.

142. AM. INTEL. PROP. LAW ASSOC., REPORT OF THE ECONOMY SURVEY 2007, at 25 (reporting monetary cost of litigation to be \$5,000,000 for a high damage case). The cost of a twelve to fifteen month ITC investigation is comparable to those incurred over two or three years in district court litigation. Wineburg & Coyle, *supra* note 96, at 4.

143. *Cf.* DUVALL ET AL., *supra* note 54, at 381 (reporting that 40 percent of investigations decided on the merits were appealed from 1989 to 1997); Bernd G. Janzen, *International Trade Decisions of the Federal Circuit: Three Years of Rigorous Review*, 52 AM. U. L. REV. 1027, 1117 n.792 (2003) (speculating that ITC appeals were rare because there was a sense that “appeals [of the ITC] are unlikely to lead to reversal of the challenged determination”).

144. U.S. Court of Appeals for the Fed. Circuit, Merit and Non-Merit Depositions for Appeals for Patent Infringement Cases, <http://www.ca9c.uscourts.gov/pdf/PatentDispositionsChartApr07-Mar08.pdf> (reporting a 13 percent settlement rate in patent infringement appeals).

145. *See, e.g.*, Standard Havens Prods. v. Gencor Indus., 897 F.2d 511, 516 (Fed. Cir. 1990).

146. The 337 statute was designed to provide expeditious relief, and staying a remedies order would frustrate that design. 19 U.S.C. § 1337(b)(1) (2006); 19 C.F.R. § 210.2 (2008).

the ITC, the ITC does not stay any exclusion order pending appeal.¹⁴⁷ In contrast, district courts occasionally stay their injunctions on appeal.¹⁴⁸ Without a stay, the infringer must cease sale and/or importation of the product until the Federal Circuit rules.¹⁴⁹ Because the ITC does not stay its own orders, it may be more difficult for a losing respondent to obtain a stay than a similarly situated losing defendant in federal court. Accordingly, infringers may be more likely to settle and less likely to appeal an ITC determination even if they believe that the ruling is erroneous.¹⁵⁰

Finally, the ITC utilizes a second review before appeal to the Federal Circuit. The Commission may review the initial determination of the ALJ and alter it if necessary.¹⁵¹ District courts, in contrast, have no similar internal quality control procedure. The second review may make the appealed ITC investigations stronger on the merits than appealed district court decisions.¹⁵² Table V provides support that the second review has the potential to affect the reversal rate. Thus, the similar reversal rates between the ITC and district courts may be due to differences in the settlement and appeal rates of disputes.

B. Repercussions if the ITC's Reversal Rate Is Comparable

As discussed in Section IV.A *supra*, there are several possible reasons that district court and ITC appeals are not comparable. Any comparison between what is occurring in the district courts and what is occurring in the ITC should be made with a full understand-

147. 19 C.F.R. § 210.48 (allowing the commission to “affirm, set aside, or modify its determination, including any action ordered by it to be taken thereunder”).

148. *See, e.g.*, NTP, Inc. v. Research in Motion, Ltd., No. Civ.A. 3:01CV767, 2003 WL 23100881 (E.D. Va. Aug. 5, 2003).

149. 19 U.S.C. § 1337(d)(1).

150. There is some empirical support that unsuccessful respondents do not appeal as frequently as unsuccessful complainants. Of the investigations in the master ITC database, complainants won 53 percent of ITC disputes, and respondents won 47 percent. *Accord* Chien, *supra* note 11, at 94 tbl.7 (reporting a complainant win rate of 58 percent over a longer period of time). Although there are more respondent losses that are appealable, less than 30 percent (nine of twenty-nine) of the appeals were from respondents. Unsuccessful complainants may not appeal because even if they prevail, the relief may not be timely.

151. DUVALL ET AL., *supra* note 54, at 388.

152. Kimball, *supra* note 96, at 106.

ing of these differences. If none of these differences explain the data, however, the ITC is as likely to be reversed as the busy district courts.¹⁵³ If this finding is correct, the study has uncovered another piece of evidence on claim construction litigation. A previous study suggested that patent-experienced district court judges do not perform better at claim construction than patent-inexperienced district court judges.¹⁵⁴ That study alone suggested that specialized patent courts are unlikely, without more, to reduce the reversal rate.¹⁵⁵

The present study is consistent with those original findings—even a separate patent trial court does not appear to reduce the reversal rate. The results are especially discouraging because the ITC has certain procedural advantages over district courts. The neutral ITC staff attorney representing the public interest should make it substantially easier for the judge to ascertain the correct claim construction. Instead of dueling litigants proposing vastly different claim constructions, the ITC staff attorney provides the judge with an unbiased claim construction recommendation.¹⁵⁶ And the ITC has a second review of claim construction by the Commission.¹⁵⁷ Even with the benefit of the neutral recommendation and secondary review, the claim construction reversal rate appears unchanged.¹⁵⁸ If the patent-experienced judges at the ITC cannot properly construe claims, who can? One explanation is that only judges with scientific training (or formal education on claim construction) can properly construe claims.

If judges without scientific training cannot properly construe claims, the Patent Pilot Program would likely be ineffective at lowering the reversal rate. Generalist judges do not appear to be capable of construing claims. Thus, to the extent that the Patent Pilot Program is designed to reduce claim construction errors, it

153. There is also the possibility that the Priest-Klein case-selection effect causes all fora appellate reversal rates to be about the same. See George Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984).

154. Schwartz, *supra* note 9, at 267.

155. *Id.* at 44.

156. DUVALL ET AL., *supra* note 54, at 477-79.

157. *Id.* at 23.

158. The ITC, on the other hand, may be adjudicating patent cases more quickly than district courts with no decrease in accuracy.

appears unlikely on its own to be effective.¹⁵⁹ On the other hand, as a modest proposal, the Patent Pilot Program can serve as a further check on the validity of the present study.

An alternative explanation for the data challenges a key assumption of the study, the assumption that the Federal Circuit is correct on claim construction. If there is an objective, correct claim construction, the ALJs on the ITC may be more accurate at reaching it than the Federal Circuit.¹⁶⁰ The ALJs may have more patent experience than the Federal Circuit judges.¹⁶¹ Consequently, their claim construction may be correct and the Federal Circuit may be incorrect. This explanation is consistent with the argument that the Federal Circuit is primarily responsible for the high claim construction reversal rate.

As explored in other articles, another explanation for the results of the present study is that claim construction is indeterminate.¹⁶² Claim construction may be inherently indeterminate because there is no common understanding of the terms in the scientific or patent law fields, even after exhausting the canons of construction.¹⁶³ The patent terms have no abstract meaning¹⁶⁴ and these terms are rarely expressly defined in the patent.¹⁶⁵ There are

159. The Patent Pilot Program appropriates \$5,000,000 yearly for compensation for law clerks with technical backgrounds and for education of judges in patent law. Patent Pilot Program, *supra* note 6, § 1(f). More technical law clerks may help to lower the reversal rate.

160. Steven Andersen, *International Trade Commission Sees Surge in Patent Cases*, CORP. LEGAL TIMES, Oct. 2004, at 24, 29 (asserting that the ALJs on the ITC “have a level of patent sophistication rivaling the Federal Circuit”).

161. It is also possible that patent legal experience is insufficient without a proper technical or scientific background.

162. *Improving Federal Court Adjudication of Patent Cases: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Property of the H. Comm. on the Judiciary*, 109th Cong. 57 (2005) (testimony of the Honorable T.S. Ellis, III) (noting that claim construction is difficult because of the “vagaries of language”); Jeffrey A. Lefstin, *The Measure of the Doubt: Dissent, Indeterminacy, and Interpretation at the Federal Circuit*, 58 HASTINGS L.J. 1025, 1030 (2007); Kathleen M. O'Malley, Patti Saris & Ronald H. Whyte, *A Panel Discussion: Claim Construction from the Perspective of the District Judge*, 54 CASE W. RES. L. REV. 671, 676 (2003) (“Often when I get to claim construction ... I see a couple of reasonable interpretations.”); S. Jay Plager, *Challenges for Intellectual Property in the Twenty-First Century: Indeterminacy and Other Problems*, 2001 U. ILL. L. REV. 69, 71-72; Schwartz, *supra* note 9, at 261-62.

163. See, e.g., Schwartz, *supra* note 9, at 261-62.

164. *Id.*

165. Even if the terms were expressly defined in the patent, the words used to define the claim terms may still need to be interpreted.

multiple plausible claim constructions, and if this is true, it is unsurprising that experienced patent adjudicators disagree with each other.

Courts construe claims from the perspective of how an ordinary person of skill in the art would have understood them at the time of filing of the patent application.¹⁶⁶ The judge and ALJ are rarely persons of skill in the art. Furthermore, the time of judicial claim construction is many years after the filing date. These twin legal fictions—construing the claims as if one were a scientist and construing the claims as they would have been understood years earlier—are difficult for judges and ALJs. The indeterminate nature of claim construction is multiplied by these difficulties. There may not be a true meaning of the claims, and consequently, complete certainty is impossible.

CONCLUSION

Building upon previous scholarship, this empirical study of claim construction at the ITC sheds further light on the high reversal rate of trial courts adjudicating claim construction cases. The ITC hears almost exclusively patent cases and the ALJs are widely assumed to be experts at patent law. Using reversal rates as the metric, however, the ALJs of the ITC perform no better than district court judges on the essential issue of claim construction. Other factors such as the small universe of ITC cases and a potential selection bias may mask the ITC's true performance. Nevertheless, if this specialized trial court does not have a lower reversal rate, the proposed quasi-specialized patent court should be approached with some skepticism.

The reason for the reversal rate may be due to items beyond the control of the trial tribunal. For example, the problem may be due to the performance and allegedly inconsistent decisions of the Federal Circuit. Alternatively, claim construction may itself be indeterminate, incapable of a definite and predictable answer. Although further study of the claim construction reversal rate is needed, several studies have now failed to show significant benefits from patent experience at the lower court. Congress should consider

166. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005).

the experience and performance of the ITC as it debates the likely effectiveness of the Patent Pilot Program.

APPENDIX

For ease of replication, this Appendix includes information on how the dataset was selected and coded. It also includes information regarding the coders and the reliability of the dataset. For the district court claim construction, an existing database, hereinafter referred to as the “District Court Appellate Decision Database” was updated, as is explained in Section A *infra*. A summary of how the decisions for the ITC appeals database were selected and coded is explained in Section B *infra*. A more detailed explanation of the sources and methods used to obtain information about Federal Circuit claim construction decisions is available elsewhere.¹⁶⁷ A brief explanation of how other information about each Section 337 investigation was obtained is set forth in Section C *infra*.

A. *The District Court Claim Construction Appeals*

This Article builds upon a previously compiled database of district court claim construction appeals.¹⁶⁸ That database, the District Court Appellate Decision Database, was updated to include all issued decisions between April 24, 1996 (the date of the Supreme Court’s decision in *Markman*), and June 30, 2008. The District Court Appellate Decision Database includes all precedential opinions, nonprecedential opinions, and all cases decided under Rule 36.

The reliability for the District Court Appellate Decision Database is high. In other words, others can recreate the database and arrive at similar measurements.¹⁶⁹ Reliability was calculated by using multiple human coders for two variables: whether the decision was relevant to claim construction, and whether the Federal Circuit reversed the case because of a claim construction error. The District Court Appellate Decision Database’s reliability has previously been confirmed using a standard measure known as *Cohen’s Kappa*, a

167. Schwartz, *supra* note 9, at 271-72.

168. *Id.* at 269-74.

169. Lee Epstein & Gary King, *The Rules of Inferences*, 69 U. CHI. L. REV. 1, 81-97 (2002).

common alternative to percentage agreement.¹⁷⁰ For the district court appellate decisions, *Cohen's Kappa* ranged from 0.845 to 0.902.¹⁷¹ These values imply high reliability of the coding of the district court data.¹⁷²

B. The ITC Appellate Decisions

The master ITC database includes all the Federal Circuit decisions in which the parties disputed the ITC's construction of a claim limitation. The database includes all decisions issued between the same dates as the District Court Appellate Decision Database (April 24, 1996, and June 30, 2008). Like the District Court Appellate Decision Database, it contains both written opinions (including precedential and nonprecedential opinions) and Rule 36 affirmances.

The relevant appeals of ITC investigations were located through the use of electronic search engines.¹⁷³ Two steps were required. First, the search engines were queried using an overly-broad search.¹⁷⁴ Second, the author determined whether the cases were relevant and recorded pertinent information. The opinion cases were considered relevant if the Federal Circuit reviewed an issue of

170. Mark A. Hall & Ronald F. Wright, *Systematic Content Analysis of Judicial Opinions*, 96 CAL. L. REV. 63, 113-14 (2008) (stating that the best practice for relaying reliability information is to report a coefficient such as "*Cohen's Kappa*"); Lee Petherbridge & R. Polk Wagner, *The Federal Circuit and Patentability: Empirical Assessment of the Law of Obviousness*, 85 TEX. L. REV. 2051, 2075-79 (2007) (reporting *Cohen's Kappa* for intercoder reliability).

171. See Schwartz, *supra* note 9, at 273. *Cohen's Kappa* was 0.845 for relevancy of the opinion cases, 0.925 for relevancy of the Rule 36 cases, and 0.902 for resolution of the claim term(s) for the opinion cases. *Id.* Because all of the Rule 36 cases were affirmed (by definition), there is no subjectivity to the resolution of the claim term(s) for the Rule 36 cases.

172. See Matthew Lombard, Jennifer Snyder-Duch & Cheryl Campanella Bracken, Practical Resources for Assessing and Reporting Intercoder Reliability in Content Analysis Research Projects, <http://www.temple.edu/mmc/reliability> (last visited Mar. 5, 2009).

173. The process for locating the relevant ITC and district court judge appeals was analogous. The method is described in substantial detail in Schwartz, *supra* note 9, at 269-73.

174. For the opinion cases, the Lexis query was "claim w/10 (constru! or interp!) and name ((int! w/2 trade w/2 com!) or itc) and date (geq (04/24/1996) and leq (6/30/2008))." For the Rule 36 cases, the Westlaw query was "((("FEDERAL CIRCUIT RULE 36") (FED.CIR.R.36) (FED.CIR +2 R.36) (FED.CIR.R +2 36)) & da(aft 4/20/1996 & bef 7/1/2008) & ("COMM!" ITC) % ("COURT OF INTERNATIONAL TRADE") % (VETERANS) % ("COMMERCIAL LITIGATION BRANCH") % ("postal service" "department of commerce" "commissioner of patents")."

patent claim construction that the ITC had decided.¹⁷⁵ From the relevant cases, the following information was recorded: the ITC investigation number, the date of the Federal Circuit decision, and how the Federal Circuit resolved the claim construction issue. A case was deemed as “reversed” if a claim construction error required reversal or a remand as to at least one product of one respondent. That definition of “reversed” is identical to the definition used to construct the District Court Appellate Decision Database. There were a total of twenty-five relevant opinion cases involving twenty-three different investigations.¹⁷⁶

A slightly different method was employed to determine the relevancy of the Rule 36 cases. The Rule 36 affirmances themselves do not provide sufficient information to determine relevancy to claim construction. Rather, the substance of the Rule 36 cases consists only of the phrase “Affirmed.” Therefore, to determine relevancy, the author reviewed the appellate briefing to the Federal Circuit of each case to determine relevancy. A Rule 36 case was deemed relevant if the appellant disputed the district court’s claim construction. There were a total of five relevant Rule 36 cases, one of which involved the same investigation as an opinion case.¹⁷⁷ Combining the opinion cases and the Rule 36 cases, twenty-nine ITC claim construction decisions from twenty-six investigations were reviewed by the Federal Circuit in the applicable time frame.

The reliability for the Federal Circuit opinion and Rule 36 cases is extremely high. All of the data were tabulated twice to ensure accuracy. To do so, the entire collection of opinion and Rule 36 cases were coded by two separate coders. There was only a single differ-

175. Consistent with previous studies of claim construction, decisions involving only design patents were excluded. Schwartz, *supra* note 9, at 269.

176. Investigations 392, 406, and 493 were subject to two separate Federal Circuit appeals on different claim construction issues. *Energizer Holdings, Inc. v. Int’l Trade Comm’n*, 275 Fed. Appx. 969 (Fed. Cir. 2008) (appealing ITC determination dated February 23, 2007); *Energizer Holdings, Inc. v. Int’l Trade Comm’n*, 435 F.3d 1366 (Fed. Cir. 2006) (appealing ITC determination dated October 18, 2004); *Personalized Media Commc’n, LLC v. Int’l Trade Comm’n*, 1999 U.S. App. LEXIS 706 (Fed. Cir. Jan. 7, 1999) (appealing ITC determination dated May 16, 1997, in investigation 392); *Personalized Media Commc’n, LLC v. Int’l Trade Comm’n*, 161 F.3d 696 (Fed. Cir. 1998) (appealing ITC determination dated October 20, 1997 in investigation 392). Details about investigation 406 are provided *infra* note 177.

177. A Rule 36 decision, *Vastfame Camera v. Int’l Trade Comm’n*, 208 Fed. Appx. 873 (Fed. Cir. 2006), involves investigation 406. An opinion, *Fuji Photo Film Co. v. Int’l Trade Comm’n*, 386 F.3d 1095 (Fed. Cir. 2004), relates to the same investigation.

ence between the coders and it was corrected.¹⁷⁸ As a double check, the opinion cases were compared to Colleen Chien's dataset and no deficiencies in the present dataset were found.¹⁷⁹

C. The ITC Investigation Database

Basic information was gathered for investigations that the ITC initiated between January 1, 1995, and June 30, 2008.¹⁸⁰ Information was gathered for all ALJs that construed at least one claim that the Federal Circuit reviewed.¹⁸¹

Through review of the relevant ITC filings, human coders recorded whether the ALJ construed the claims in each investigation. If the judge construed the claims, the date of the claim construction was recorded. The following information was collected: the date of the initiation of the investigation, the name of the ALJ assigned to the investigation,¹⁸² whether claim construction was decided, and the date of any claim construction decision.

Because this information obtained from the ITC website consists only of objective information, no formal measure of reliability is necessary.¹⁸³ Other scholars have used this information for empirical analysis, and there is no reason to believe that the information reported by the ITC is inaccurate.¹⁸⁴

178. *Cohen's Kappa* was 1.0 for relevancy of the opinion cases, 1.0 for relevancy of the Rule 36 cases, and 0.91 for resolution of the claim term(s) for the opinion cases.

179. Chien, *supra* note 11.

180. The ITC website provides a wealth of information about the investigations. *See, e.g.*, <http://info.usitc.gov/ouiii/public/337inv.nsf/All?OpenView>; Trade Remedy Investigations, http://www.usitc.gov/trade_remedy/int_prop_publications/index.htm; <http://searchapp.usitc.gov/edis3/app>.

181. The following ALJs met these criteria and consequently were included in the study: Robert Barton, Charles Bullock, Sidney Harris, Paul Luckern, Janet Saxon, and Delbert Terrill.

182. The ITC website identified multiple administrative law judges for some investigations. This study counted the judge that issued the determination of claim construction (typically as part of an Initial Determination), if any, as the responsible judge. Otherwise, the final judge on the investigation was deemed the responsible judge.

183. *See* Hall & Wright, *supra* note 170, at 112.

184. *See, e.g.*, Chien, *supra* note 11; Hahn & Singer, *supra* note 120.