An Empirical Examination of the Adjudication and Settlement of Patent Infringement Lawsuits in the United States Court of Federal Claims

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An Empirical Examination of the Adjudication and Settlement of Patent Infringement

Lawsuits in the United States Court of Federal Claims

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A Thesis in the Field of Government
For the Degree of Master of Liberal Arts in Extension Studies

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Abstract

This study examined and analyzed data on how often patent lawsuits settle or are adjudicated on the merits against the U.S. Government at the Court of Claims in comparison to lawsuits against non-governmental defendants in the Eastern District of Texas and the E.D. Virginia. The comparative analysis focused on three years of study at these courts and was based on the gathered data on how often plaintiffs received a favorable outcome; how often parties settled; how often plaintiffs received a verdict on the merits from a court; how often defendants won on summary judgment; how often defendants won at trial; and how many cases were pending resolution. The findings revealed that the rates of settlement, adjudication, and the other data are highly venue dependent. In cases where the U.S. Government is a defendant, it received a greater percentage of favored outcomes through adjudication, summary judgment, and dismissed cases at the Court of Claims in comparison to the non-governmental defendants in the other courts studied. In addition, the overall rates of settlement are lower and the rate of adjudication is higher than reported in the previous studies.

This study yielded findings indicating that the U.S. Government may receive more favorable treatment in patent cases, as it has financial and strategic advantages in comparison to other defendants. In addition to significant financial resources, the U.S. Government defends itself in the same court for all patent lawsuits in which it is a named defendant. This gives the U.S. Government strategic advantages, such as
predictable court rules, local and consistent rules of procedure, familiarity with the
docket and length of time to trial, and an ability to frequently communicate and practice
before a handful of judges.

In order to provide non-governmental defendants with similar advantages, this
thesis proposes that Congress mandate that all patent infringement lawsuits undergo an
Inter Partes Review at the U.S. Patent & Trademark Office so that the Patent &
Trademark Office can initially determine the validity of a patent at issue before a District
Court examines the remaining issues. This bifurcated trail system would result in
significantly lower litigation costs to non-governmental defendants, predictable court
rules at the Patent & Trademark Office, consistent rules of procedure, familiarity with a
docket, a limited amount of time to reach a decision, and the ability to frequently
communicate and practice before known judges that are subject matter experts. Thus,
this type of system may, provide all defendants with similar strategic advantages,
predictable initial trial costs, more consistent and predictable outcomes and may reduce
forum shopping.
“The patent system added the fuel of interest to the fire of genius.”

— Abraham Lincoln
Author’s Biographical Sketch

The author received her Juris Doctorate degree in 1992 from the Washington College of Law, American University. She is a registered patent barred attorney before the United States Patent & Trademark Office with a B.S. from Stony Brook University, and a M.S. from Johns Hopkins University. As the Assistant General Counsel for Intellectual Property at the Department of Homeland Security, she is the head of the Intellectual Property practice group within the Office of the General Counsel, and manages intellectual property legal guidance for the Department’s needs, including prosecution and litigation. The author wrote this thesis in her personal capacity. The opinions expressed in this thesis are the author's own and do not reflect the views of the Department of Homeland Security, the United States Patent & Trademark Office, or the United States Government.
Dedication

I am grateful to several people in my life that have enabled me to complete my education at Harvard University. This paper is dedicated to my parents, Nadipuram and Vasantha Srivatsan. My parents immigrated to the United States from India in 1970, and instilled in me intellectual curiosity, the value of an education, and the pursuit of the American Dream. I thank Jay and Marshall, who have always supported me in all my endeavors. I am also grateful to my three children, who have cheered me on, given me joy, and taught me that I am never too old to learn.
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Chapter I

Introduction

The United States Constitution empowered Congress to create patent laws to “promote the progress of science and the useful arts, by securing for limited times to authors and inventors, the exclusive right to their writing and discoveries.”¹ In exchange for public disclosure of an invention, a patent owner receives the right to exclude others from making, using, or selling his or her invention for a period of twenty years.²

During this twenty-year period of enforcement, a patent owner may choose to seek damages for patent infringement against the United States Government in the United States Court of Federal Claims³ (“Court of Claims”) or against other parties in other federal district courts. Although all district courts apply the same federal statutes⁴ and case law to patent cases, the uniqueness of the Court of Claims may impact how cases are settled and adjudicated. Unlike any other district court, the Court of Claims is

¹ U.S. Constitution, art. I, § 8, cl. 8.


⁴ See generally, U.S. Code 35 (2012), Parts II and III. These Federal Statutes describe the laws that relate to the patentability of inventions and protection of rights.
designed, in part, to hear cases filed only against the United States government. Legal representation for the U.S. government at the Court of Claims is provided by the Department of Justice, and the U.S. Treasury pays all patent judgments from permanent and indefinite funds provided by Congress.

This study examines and analyzes data on how often patent cases settle or are adjudicated against the U.S. Government at the Court of Claims in comparison to non-governmental patent cases in the Eastern District of Texas ("E.D. Texas") and the Eastern District of Virginia ("E.D. Virginia"). The E.D. Texas and E.D. Virginia are important courts for patent cases and were chosen for this study for several reasons. These courts have a history of a high volume of patent infringement cases. One in four patent lawsuits is filed in the E.D. Texas. The E.D. Virginia has the fastest moving docket in the county. Moreover, legal scholars believe that these forums are plaintiff

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5 Claims Against United States Generally, U.S. Code 28 (2011) §1491. The U.S. Court of Claims is the only court where a plaintiff can file a patent infringement lawsuit against the U.S. Government. Including patent and non-patent cases, this Court has about 2,200 pending cases against the United States, many of which involve claims currently estimated in the tens of billions of dollars. The average claim is well over one million dollars.

6 The Judgment Fund, a division of the U.S. Treasury, was established to pay court judgments and Justice Department compromise settlements of actual or imminent lawsuits against the government. The Judgment Fund is a permanent, indefinite appropriation available to pay judicially and administratively ordered monetary awards against the United States. The Judgment Fund is also available to pay amounts owed under compromise agreements negotiated by the U.S. Department of Justice in settlement of claims arising under actual or imminent litigation, if a judgment on the merits would be payable from the Judgment Fund. The statutory authority for the Judgment Fund is at U.S. Code 31 § 1304. See generally, the U.S. Government’s Internet site at https://www.fms.treas.gov/judgefund/index.html.


The thesis has five chapters. Chapter I provides an introduction, a chapter synopsis, and discusses why societies value patents and the goals of patent laws. It also provides a brief history of U.S. patent laws and legal framework, an overview of the unique laws regarding patent infringement cases against the Federal Government, and a discussion on why courts are important to society. It explains why settlement and adjudication rates are significant and worthy of study.

Chapter II provides an overview of relevant literature and identifies research gaps. It explains how this study can contribute to the research gaps by studying cases at the U.S. Court of Federal Claims, the E.D. Texas, and the E.D. E.D. Virginia. Chapter III presents the research questions, hypothesis, purpose, and methods, while Chapter IV provides the results and data obtained from the courts of interest. Chapter V analyzes the data in a Discussion section. It finds that settlement rates, adjudication rates, and the outcomes of patent infringement are inconsistent, venue dependent, and can negatively affect public policies. In addition to demonstrating inconsistent judicial rulings, the comparative analysis between the Court of Claims and the other courts supports the view that outcomes of patent infringement lawsuits depend on the relative strategic, legal, and financial strength of parties. The Court of Claims, the only venue
where a plaintiff can sue the U.S. Government for patent infringement, gave defendants more favorable outcomes than any other court studied. Based on the study findings, new legislation is proposed, aiming to address inconsistent outcomes and level the playing field among defendants. Specifically, this thesis proposes that Congress bifurcate patent infringement lawsuits such that the Patent and Trademark Office initially must decide all issues of patent validity through a mandatory trial proceeding, the Inter Partes review, prior to any proceedings at the district court level. Finally, Chapter VI concludes that this study is a part of an emerging empirical effort among patent law scholars to identify strategies to improve the patent system, and that mandatory Inter Partes review is one strategy that should be considered.

Why Societies Value Patents and the Goals of Patent Laws

There is widespread agreement on society’s goals for patent law, that is, to promote the progress of science. Patent laws seek to provide incentives to invest in innovation, Research and Development (“R&D”), and disseminate knowledge through the disclosure of technical knowledge within the published patent. Patents can also

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promote collaboration,\textsuperscript{11} and assist large and small businesses by attracting venture capitalists to help fund and commercialize investments.\textsuperscript{12} At the international level, patents directly relate to trade. Although the World Trade Organization’s member countries engaged in vigorous debate about patents, more than 80 countries eventually signed intellectual property related international agreements.\textsuperscript{13} Some economists have calculated that the creation of one patent results in three to ten jobs in the United States, and that patents add more than $24 billion annually to the economy.\textsuperscript{14} Although there is some controversy on whether patent laws achieve their intended purpose in today’s world,\textsuperscript{15} they are not a new concept in the United States.

A Brief History of U.S. Patent Laws – From 1790 to Modern Times

The history of patent laws in the United States begins more than two centuries ago. Noting that patents in England helped spur the Industrial Revolution, the founders


of the U.S. Constitution empowered Congress to create patent laws. Since the U.S. Constitution was signed, the Congress has passed significant patent legislation only six times.\textsuperscript{16}

The Patent Acts of 1790 and 1793 established a preliminary framework for inventors to receive an exclusive period to their inventions and defined the subject matter of a patent as “any new and useful art, machine, manufacture or composition of matter and any new and useful improvement on any art, machine, manufacture or composition of matter.”\textsuperscript{17} This criterion for the subject matter of a patent, or patent eligibility, is still in use today.\textsuperscript{18} Several decades later, the Patent Act of 1836 established the United States Patent and Trademark Office (“Patent and Trademark Office”), and gave it the statutory authority to create efficient processes and award patents.

Although the Patent and Trademark Office was created in 1836, Congress laid out the basic legal structure of modern patent laws only about 63 years ago. In 1952, a new Patent Act mandated that inventions had to be “new, useful, and non-obvious.”\textsuperscript{19}


\textsuperscript{17} Patent Act of 1793, § 1, 1 Stat. 319 (February 21, 1793).

\textsuperscript{18} Although this language is still used to determine patent eligibility, U.S. Courts are still struggling to define what new types of inventions constitute patent eligible subject matter, particularly with respect to inventions such as software and biotechnical inventions.

\textsuperscript{19} 35 U.S. Code § 101 states “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”
And, in 2011, the Leahy-Smith America Invents Act enacted the most significant changes to the U.S. patent system since 1952, including a new rule that the Patent and Trademark Office would award a patent to the first inventor to file a patent application on a technology, rather than to an individual that first invented it.

According to the current patent laws, when the Patent and Trademark Office awards a patent to an inventor, that inventor receives the right to exclude others from making, using, or selling his or her invention for a period of twenty years, in exchange for the public disclosure of an invention. If a patent owner wishes to enforce his or her patent and sue an infringer, the patent owner can file the suit in a United States Federal District Court.

While there are 94 Federal District Courts, roughly ten Federal District Courts hear a bulk of the approximately 5000 patent cases every year. A party may appeal a patent matter from any of the Federal District Courts to the Court of Appeals for the Federal District. A party wishing to appeal a decision from the Court of Appeals for the Federal District files for certiorari to the United States Supreme Court. The Supreme Court does not have a legal obligation to consider the merits of cases on appellate jurisdiction. Review on a writ of certiorari is not a matter of right, but of judicial

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discretion.\textsuperscript{21} However, in 2013, the U.S. Supreme Court heard more intellectual property cases than any other time in history.\textsuperscript{22}


Figure 1. Structure of the court system for patent cases in the United States.

Plaintiff must initiate a patent infringement lawsuit in 1 of 94 Federal District Courts

Defendant is a private entity  

U.S. Federal District Court (Adjudication by a Judge or Jury)

Defendant is the U.S. Government  

U.S. Court of Federal Claims (Adjudication by a Judge only)

Appeal

Court of Appeals for the Federal Circuit  
(Adjudication usually by a 3-Judge Panel. Requests for a rehearing on the matter are possible but rare.)

Appeal (assuming certiorari granted)

United States Supreme Court  
(Adjudication by 9 Supreme Court Justices)
Patent Infringement Cases against the United States Government

The U.S. Government spent more than $3.5 trillion in 2014, with about $140 billion dedicated to R&D through government-operated laboratories and funding agreements with contractors or award recipients. As it is common for R&D to build upon prior art and known technologies, it is likely that the U.S. Government infringes on existing patents in conducting R&D. During the period a patent is presumed valid, a patent owner may choose to seek damages for patent infringement against the U.S. Government in the United States Court of Federal Claims ("Court of Claims").

Established by Congress in 1855, the Federal Government is the defendant in all Court of Claims actions.

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26 The general jurisdiction of the Court, described in 28 U.S. Code § 1491, is over claims for just compensation for the taking of private property, refund of federal taxes, military and civilian pay and allowances, and damages for breaches of contracts with the government. In general, the Court is entrusted with exclusive, nationwide jurisdiction over various money claims against the United States in excess of $10,000. The Court hears suits involving Government contracts, Constitutional claims, tax refunds, Indian claims, civilian and military pay claims, patent and copyright matters, and vaccine injury claims. Many of the cases on the Court’s docket are particularly complex and seek large damage awards. The general jurisdiction non-pro se cases pending before the Court during 2006 include damage claims in excess of $197 billion. In 2006, the Court rendered judgments in more than 900 cases and awarded $1.8 billion in damages. Over 60% of the Fortune 100 companies have been parties in cases before the Court.

27 When the Government takes a person’s patent, he or she may bring suit to recover damages against the United States in the Court of Federal Claims under the Tucker Acts, 28 U.S. Code Sec. 1346(a)(2) and 1491.
The U.S. Code explains when the Federal Government can be liable for patent infringement:

Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner’s remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his \textit{reasonable and entire compensation} for such use and manufacture... For the purposes of this section, the use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm, or corporation for the Government and \textit{with the authorization or consent of the Government}, shall be construed as use or manufacture for the United States....

28 U.S. Code Section 1498(a) (emphasis added).

A primary purpose of this statute is to provide a patent owner only with reasonable compensation from the Federal Government. Unlike a non-governmental entity that is sued for patent infringement, a patent owner cannot obtain an injunction against the Federal Government. That is, a patent owner cannot stop the Federal Government from using his or her invention. A patent owner also cannot obtain relief for indirect infringement against the Federal Government.\(^{28}\)

Another primary purpose of this statute is to protect and relieve contractors from liability. Under this statute, a patent owner can sue the Federal Government for

\(^{28}\) A private individual “directly” infringes the patent owner’s right to exclude others by making, using, selling, or offering to sell the invention within the United States, or by importing the invention into the United States. A private individual can be liable to the patent owner also for “indirectly” infringing the patent—in essence aiding and abetting someone else’s infringement. See Richard J. McNeely, “Governmental Indirect Patent Infringement: The Need to Hold Uncle Sam Accountable under 28 U.S Code § 1498,” \textit{Capital University Law Review} 36 (2008): 1065.
the actions of its contractors or other entities that act with its authorization and consent. For example, a patent owner can sue the Federal Government for contractors who infringe patents under a federal procurement contract or conduct research and development on its behalf. A patent owner can also sue the Federal Government when the Federal Government engages in certain types of collaborative research with third parties. Regardless of whether a patent owner sues for infringement against the Federal Government or a private party, Federal Courts play a vital role in deciding patent cases and adjudication or settlement rates serve a vital purpose to society.

The Importance of Courts and Why Settlement & Adjudication Rates Are Important

Society has many incentives to allow courts to decide on the enforceability and validity of patents. Legal stability and predictability are fundamental parts of what people mean by the Rule of Law. In the absence of stability and predictability in law,

29 See Federal Acquisition Regulations 52.227-01. A Federal contract establishes that the government is liable for a contractor’s patent infringement when the contract incorporates the “Authorization and Consent” clause in the contract [FAR clause 52.227-1]. The “Authorization and Consent” clause is usually included in research and development contracts and it is a significant right because it makes the Government responsible for the contractors' infringement of any patents during the course of performance of the contract. With the inclusion of the “Authorization and Consent” clause, the patent owner must bring her/his action against the Government, not the contractor. Sometimes the Government does not wish to fully delegate its eminent domain power to a contractor. This is accomplished by inclusion in the contract of the “Patent Indemnity” clause [FAR clause 52.227-3], which obligates the contractor who infringes a patent to indemnify the Government for any liability it incurs.

30 A Cooperative Research and Development Agreements (“CRADA”) is an agreement between the Federal Government and a private entity such as a University or company to jointly conduct research. It is authorized by the Federal Technology Transfer Act of 1986 (P.L. 99-502).

31 See Stefanie A. Lindquist and Frank C. Cross, “Stability, Predictability and the Rule of Law: Stare Decisis as Reciprocity Norm” (paper presented at the Measuring the Rule of Law Conference at the
citizens have difficulty managing their affairs effectively. Courts are an integral part of the patent system and serve as an institutional mechanism not only for protecting and enforcing valid patent rights but also for maintaining the integrity of the process used to grant those rights. Without the confidence that a patent owner can enforce patent rights quickly and efficiently when needed, the patent system cannot stimulate innovation.

In the civil litigation system in the United States, it is common for parties to settle lawsuits prior to final adjudication, including lawsuits against the Federal Government. Settlements dominate the outcomes of civil litigation. It is a common way to assess successful outcomes for plaintiffs, and the number of civil settlements generally exceeds the number of successes at trial. The U.S. Government, as well as private parties, settles cases. Information about settlement is important to the parties in litigation, as well as legislators, policy makers, and judges.


Parties in a lawsuit value information about prior settlement rates for several reasons. Patent infringement lawsuits can be extraordinarily cost prohibitive for the parties. It is well known that defendants may settle simply to avoid exorbitant litigation costs or potentially large damages. Settlement rate information may help litigators assess patent enforcement or defense strategies. A high volume of settlements in a particular court, coupled with the expense of lawsuits, can incentivize parties to settle a particular case. However, a low volume of settlements in a court, coupled with high adjudications of patent invalidity, may provide defendants with incentives to allow a court to decide the case.

Analyses of settlement or adjudication


39 Scholars recognize the basic theory of settlement, which states that a rational party should settle only if it could obtain at least what it would achieve by going to trial, taking into account economic and non-economic factors costs of both settlement and trial. See, e.g., Peter Hoffman, “Valuation of Cases for Settlement: Theory and Practice,” Journal of Dispute Resolution 1 (1991): 1–62. Therefore, if the parties have increased data about patent settlement associated with a particular court such as volume and timing of past settlements, the parties have additional information to value their case. The closer the match between the facts of similar cases and the case at hand may provide a party with greater predictive value. Recognizing that many cases never go to trial, a litigator may turn to information in settlements to examine what amounts a party settled for in the past. Certainly, past settlement information is not the only information that a litigator may use to determine trial strategy. The strength of a party’s position, a possible injunction, the cost benefit analysis to litigation, and the trial posture of the opposing party may all play a part in trial strategy.
rates could improve patent quality and help parties to a lawsuit decide how to defend or enforce their position.

Settlement rate analysis can also help the government better assess legislative needs or requirements, and respond with appropriate laws and regulations. In the past few years, the U.S. Congress, courts, and the Patent and Trademark Office have considered various measures to improve the quality of patent laws and regulations. Governmental entities interested in improving or reforming patent system in the context of litigation may consider adjudication rates important. They may want to assess how often courts rule on patent validity and infringement, whether settlements interfere with a court’s ability to correct or tailor the scope of patent rights, and whether courts review too few patents on the merits. Settlement and adjudication data may also help identify incentives to settle, whether there is a movement away from public forms of dispute resolution, and whether this is a cause for concern. For example, Congress and the current administration are considering how to best address the issue of patent trolls or non-practicing entities that allegedly coerce businesses to buy licenses for patents that they have purchased and enforce. Thus, settlement and

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adjudication data is important for a variety of reasons, including legal strategy, domestic policies, and legislative analyses. However, there are notable gaps in the existing literature on this topic.
Chapter II

Existing Literature and Gaps

In addition to literature on specific cases, the academic literature pertaining to patent laws can be broadly divided into six categories:

1) Literature examining patents and economic or trade-related issues;\(^{43}\)

2) Literature examining philosophical issues or questioning the moral or ethical value of patents;\(^{44}\)

3) Literature discussing patent enforcement, comparative or conflicting international patent laws;\(^{45}\)

4) Literature discussing the Patent and Trademark Office’s processes;\(^{46}\)

5) Literature advocating or examining what types of inventions merit a patent, or subject matter eligibility;\(^{47}\)

6) Literature examining or discussing empirical data pertinent to patent cases.

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The first five categories identified above will not be discussed, as they extend beyond the scope of this thesis. The literature from the sixth group will be discussed as it is within the subject matter of this thesis.

One significant study that examined empirical patent data is a Government Accountability Office report published in August 2013. This study examined the consequences of patent litigation in terms of the volume and characteristics of patent litigation activity, views of stakeholders, and developments in the judicial system that may affect patent litigation. Following the analysis of about 500 cases, this report found that during the years 2000 to 2010, the number of patent infringement lawsuits fluctuated slightly. However, in the 2010 to 2011 period, the number of patent infringement lawsuits increased by about 33% and the number of defendants increased by more than 129%. The report attributed the growth in the litigation activity to several factors, including recent changes in the laws. This report specifically recommended that the Patent and Trademark Office conduct more studies to examine trends in patent infringement litigation in order to improve patent quality and examination. Other studies that examined the volume of patent lawsuits also provide evidence that the

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number of patent infringement lawsuits continued to steadily rise after the year 2010, decreasing slightly in 2014.⁴⁹

Many other patent empirical studies have gathered data with respect to a specific technical area, such as software patents,⁵⁰ biotechnology,⁵¹ or audio technologies.⁵² Similarly, other researchers have studied and compared the amounts of damages awarded in Federal District Courts or other case information related to patent infringement decisions, such as time to trial statistics, jury versus bench comparisons, statistics by judges,⁵³ entity size,⁵⁴ and award values and amounts.⁵⁵


Although all the studies cited above are excellent starting points, these works lack the precision to identify the cases that settle and those that are adjudicated on the merits because most focus on the lawsuits that receive verdicts at trial, thus excluding settlement figures.

The few studies that have focused on patent litigation settlement statistics have examined very few Federal District Courts, such as the Eastern District of Pennsylvania and the Northern District of Georgia, to estimate the aggregate settlement rates. For example, the study conducted by Kesan and Ball revealed that only 5% of patent cases went to trial, and 6-9% of the cases tracked were adjudicated through summary judgment. This study also indicated that the transaction costs associated with patent litigation are expensive for the parties and, as a result, injunctive relief or damages are rare. Patent litigation can cost from $500,000 to $3 million per suit or $500,000 per claim at issue per side. In their study, Kesan and Ball presented important research results. However, as the data is about 20 years old, it is unclear whether the study’s findings are still valid. In addition, it does not appear that the authors considered whether the analysis still applies when the Federal Government is a defendant.

There does not appear to be any recent published research on settlement data or any empirical data about patent settlement rates at the Court of Claims. Similarly, literature search performed as a part of this study failed to identify any comparative

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data about two of the most active patent dockets in Federal district courts, the E.D. Virginia or the E.D. Texas, against the Federal Government at the Court of Claims. This study aims to fill in this important gap in the pertinent literature.
Chapter III

Research Questions, Purpose, Methods, and Limitations

This Chapter describes the primary research questions and hypothesis of this study. It describes the methodology of how the study gathers, aggregates, and analyzes empirical data from patent infringement cases at the Court of Claims in comparison to the E.D. Virginia and the E.D. Texas for several reasons, including contributing to existing literature and analyzing how to better improve the patent system. This study, however, is restricted in scope and has several limitations, as further described below.

Research Questions and Hypothesis

The principal goal of this research is to answer the question: how often do patent infringement cases either settle or get adjudicated on the merits at the Court of Claims in comparison to patent cases at the E.D. Virginia and the E.D. Texas?

As the U.S. Government is a large and well-funded entity with sufficient resources to defend itself in lawsuits, I hypothesize that the rates of settlement at the Court of Claims for patent cases are significantly lower than those in patent cases at the E.D. Virginia or the E.D. Texas.
Purpose

This research is important for several reasons. As discussed above, empirical and comparative data from the selected courts have not been previously studied. Data on case outcomes can affect future R&D efforts, assist legislators in improving the quality of patent laws and policies, and help parties to a lawsuit develop litigation strategies. There are broader research implications if the research results demonstrate that the U.S. Government settles fewer cases than those in other district courts, or if the comparative analyses demonstrate that settlement outcomes are inconsistent in courts. Legislators currently seeking to improve the quality of patent laws may consider whether the U.S. Government receives favorable treatment or whether a private party defendant receives less favorable treatment due to a lack of resources or other strategic disadvantages. If the research results demonstrate that the U.S. Government settles more often than private party defendants do, legislators may consider limiting taxpayer-funded settlements or judgments for excessive settlement awards. Alternatively, if the research does not reveal a lower settlement rate, the findings yielded may help demonstrate that the U.S. Government does not receive special treatment as a defendant, and legislators may choose to focus on improving patent laws through other mechanisms.

The research results may also help determine whether patent infringement outcomes in the Court of Claims are predictable or unpredictable in comparison to the other courts studied. Unpredictable outcomes may raise concerns that patents can lead
to unjust enrichment, impede the progress of innovation, or undermine business interests. In addition, the Court of Claims may use these research results to benchmark outcomes against cases in other Federal District Courts. Finally, little systematic knowledge exists about settlement of patent litigation rates. Thus, the accurate assessment of settlement rates in patent infringement lawsuits is of interest in its own right.

In sum, this study may add value to the body of literature aiming to ascertain whether the quality of the patent system should be improved through substantive patent law reform or through administrative procedures. It may also help parties to a patent infringement lawsuit better assess their litigation strategy.58

Methods

To answer the research question guiding this study, the data obtained from 406 cases at the Court of Claims, the E.D. Virginia, and the E.D. Texas from the years 2010 to 2013 was identified on the Westlaw database. It was subsequently subjected to careful comparison and analyses.

Potential patent cases were identified with appropriate keyword searches on the Westlaw database. Irrelevant cases were eliminated, such as cases brought against the

Patent and Trademark Office on appeal or cases that pertain to a post-judgment verdict, such as a dispute over royalties or damages. Cases that were not directly related to patent infringement lawsuits were also eliminated. Once irrelevant cases were eliminated, relevant cases were compiled and organized. As the next step, the researcher tracked the docket history for three years of each of the relevant cases from the date the complaint was filed until a resolution.

Similar to the terminology in prior studies, cases were then classified by outcomes into the following categories: the case resolved through settlement; the case was adjudicated on the merits through summary judgment or at trial; the case was transferred; or the case was still pending. As a part of this endeavor, the researcher also calculated the number of times a court or jury issued rulings on infringement or patent validity for either the plaintiff or defendant. Table 1 presents the data sets for the four years studied for each of the three courts studied, and Table 2 provides specific definitions of outcomes as used in this study.
Table 1. Construction of the data set.

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<th>COURT</th>
<th>E.D. Virginia</th>
<th>E.D. Texas</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Court of Claims</td>
<td>E.D. Virginia</td>
<td>E.D. Texas</td>
<td></td>
</tr>
<tr>
<td>Number of cases identified by the database</td>
<td>31</td>
<td>83</td>
<td>322</td>
<td>436</td>
</tr>
<tr>
<td>Number of cases that were not relevant to this study</td>
<td>1</td>
<td>14</td>
<td>37</td>
<td>52</td>
</tr>
<tr>
<td>Number of cases that were transferred to another District Court</td>
<td>0</td>
<td>13</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td>Number of cases used for the analysis</td>
<td>30</td>
<td>56</td>
<td>270</td>
<td>356</td>
</tr>
</tbody>
</table>
Table 2. Specific definition of outcomes in the context of this study.

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Cases where the parties agreed to resolve the question of liability, and stipulated to dismiss the case at any time after the complaint was filed and prior to trial.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases Decided at Trial</td>
<td>Cases where a decision was rendered by a judge or jury after a trial.</td>
</tr>
<tr>
<td>Outcomes Favoring Plaintiff</td>
<td>Cases in which there was a settlement or cases where a court adjudicated in favor of a Plaintiff.</td>
</tr>
<tr>
<td>Summary Judgment for the Defendant</td>
<td>Cases in which a court granted the defendant a dispositive opinion regarding patent invalidity and/or infringement. Summary judgment usually occurs before a case is decided at trial.</td>
</tr>
<tr>
<td>Case Dismissed</td>
<td>Case dismissed by the Judge as a final determination on the merits and the Plaintiff cannot refile the case.</td>
</tr>
</tbody>
</table>

This study specifically did not consider or analyze whether any of the cases were appealed or the outcomes of any appeals. This study focused on the last three years of cases to allow for the examination of the history of each case in detail than is possible with a larger data set, and for the analysis to reflect current patent laws and civil procedures.

Objective success in the context of settlement or litigation is difficult to define. Prior studies identify settlement as a proxy for plaintiff’s success. For the purpose of this study and consistent with prior studies, a “favorable outcome” for the plaintiff means that the case resolved through settlement or that a court found for the plaintiff

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on the merits. “Settlement” occurs when the parties resolve the question of liability by means of an agreement, accompanied by a stipulation to dismiss a case at any time after the plaintiff filed a complaint and prior to trial. A patent settlement usually contains a licensing agreement that allows the plaintiff patent owner to preserve patent rights in the patent at issue, and usually contains an explicit agreement on infringement or an entry of infringement into a court’s docket. Therefore, as the plaintiff usually retains rights to his or her patent in a settlement, and there is usually agreement on infringement, this study considers settlement a favorable outcome for the plaintiff regardless of the dollar amount that a defendant may pay to the plaintiff. Other than settlement, a favorable outcome for the plaintiff occurs when a court adjudicates the case in favor of the plaintiff.

Research Limitations

This study has some limitations. First, there are thousands of patent litigation infringement lawsuits every year in Federal District Courts, and it is therefore necessary to restrict the number of courts selected for this investigation. In order to examine three Federal District Courts more closely, I have elected to focus on those with a high volume of patent infringement cases or District Courts that focus on lawsuits against the

60 Kesan and Ball, “How Are Patent Cases Resolved?” 275–276. Tax considerations may help explain why settlement agreements usually include an explicit agreement of infringement. For tax purposes, the portion of recovery in a settlement for recovery against infringement may be compensatory and non-taxable, while recovery for other types of damages may be subject to income tax. See Alan R. Thiele, Judith R. Blakeway, and Charles M. Hosch, The Patent Infringement Litigation Handbook: Avoidance and Management (Chicago: American Bar Association, 2010), 218–219.
U.S. Government. Second, this study focuses on the initial adjudication, thus excluding cases that may have been vacated, remanded, or overturned on appeal. Third, the researcher could neither obtain nor consider all cases under protective orders. Finally, as the data for this study were sourced from one leading legal database, the data are limited to those substantive cases that the database reports.
Chapter IV

Results

The compiled results of case outcomes from all three courts, the Court of Claims, the E.D. Virginia, and the E.D. Texas, are presented in Table 3, 4, and 5, respectively, and Figure 2, 3, and 4, respectively.

In Table 3, the data from the Court of Claims shows that plaintiffs received a favorable outcome in 6.67% of all the cases filed. However, the plaintiffs obtained favorable outcomes only through settlement and not through a court’s verdict or ruling. None of the cases were adjudicated and decided at trial for the plaintiff during the period of the study. The outcomes favored the defendant, the U.S. Government, in 50% of the cases. At the time the results were compiled, 43% of the cases were pending resolution. The Court of Claims adjudicated at trial a total of 6.67% of all filed cases. In all of the cases that the Court adjudicated at trial, the defendant won 100% of the time.

In Table 4 and Figure 3, the data from the E.D. Virginia shows that plaintiffs received a favorable outcome in 19.6% of the cases filed, 10.7% through settlement, and 8.9% through adjudication. The outcomes favored a defendant in 44.6% of the cases. At the time the results were compiled, 35.7% of the cases were pending resolution. The E.D. Virginia adjudicated at trial a total of 19.6% of all filed cases. In all of the cases that the Court adjudicated at trial, the plaintiffs won 45.5% of the time, and the defendants won 55% of the time.
In Table 5 and Figure 4, the data from the E.D. Texas shows that plaintiffs received a favorable outcome in 50% of the cases, 10.7% through settlement, and 8.9% through adjudication. The outcomes favored a defendant in 11.1% of the cases. At the time the results were compiled, 38.9% of the cases were pending resolution. The E.D. Texas adjudicated at trial a total of 16.3% of all filed cases. In all of the cases that this Court adjudicated at trial, the plaintiffs won 59% of the time, and the defendants won 41% of the time.
Table 3. Outcomes from the Court of Claims.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Number of Cases Considered 30</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcomes Favoring Plaintiff</strong></td>
<td></td>
<td>6.67%</td>
</tr>
<tr>
<td>Parties Settled</td>
<td>2</td>
<td>6.67%</td>
</tr>
<tr>
<td>Case Adjudicated and Decided at Trial</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Outcomes Favoring the Federal Government (Defendant)</strong></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>Summary Judgment (at least partial)</td>
<td>5</td>
<td>16.67%</td>
</tr>
<tr>
<td>Case Dismissed</td>
<td>8</td>
<td>26.67%</td>
</tr>
<tr>
<td>Case Adjudicated and Decided at Trial</td>
<td>2</td>
<td>6.67%</td>
</tr>
<tr>
<td><strong>Cases Pending Resolution</strong></td>
<td>13</td>
<td>43.33%</td>
</tr>
<tr>
<td><strong>Total Number of Cases Adjudicated by the Court through Summary Judgment or Trial</strong></td>
<td>7 out of 30</td>
<td>23.3%</td>
</tr>
</tbody>
</table>
Figure 2. Outcomes from the Court of Claims.

Outcomes from the Court of Claims

- Plaintiff Favored 6.67% of the time
- Defendant Favored 50% of the time
- Cases Pending Resolution 43.33%
Table 4. Outcomes from the E.D. Virginia.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Number of Cases Considered</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcomes Favoring Plaintiff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parties Settled</td>
<td>6</td>
<td>10.7%</td>
</tr>
<tr>
<td>Case Adjudicated and Decided at Trial</td>
<td>5</td>
<td>8.9%</td>
</tr>
<tr>
<td><strong>Outcomes Favoring Defendant</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary Judgment (at least partial)</td>
<td>7</td>
<td>12.5%</td>
</tr>
<tr>
<td>Case Dismissed</td>
<td>12</td>
<td>21.4%</td>
</tr>
<tr>
<td>Case Adjudicated and Decided at Trial</td>
<td>6</td>
<td>10.7%</td>
</tr>
<tr>
<td><strong>Cases Pending Resolution</strong></td>
<td>20</td>
<td>35.7%</td>
</tr>
<tr>
<td><strong>Total Number of Cases Adjudicated by the Court through Summary Judgment or Trial</strong></td>
<td>18 out of 56</td>
<td>32.1%</td>
</tr>
</tbody>
</table>
Figure 3. Outcomes from the E.D. Virginia.

- Plaintiff Favored 19.6% of the time
- Defendant Favored 44.6% of the time
- Cases Pending
Table 5. Outcomes from the E.D.Texas.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Number of Cases Considered</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcomes Favoring Plaintiff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parties Settled</td>
<td>109</td>
<td>40.3%</td>
</tr>
<tr>
<td>Case Adjudicated and Decided at Trial</td>
<td>26</td>
<td>9.6%</td>
</tr>
<tr>
<td><strong>Outcomes Favoring Defendant</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary Judgment (at least partial)</td>
<td>6</td>
<td>2.2%</td>
</tr>
<tr>
<td>Case Dismissed</td>
<td>6</td>
<td>2.2%</td>
</tr>
<tr>
<td>Case Adjudicated and Decided at Trial</td>
<td>18</td>
<td>6.7%</td>
</tr>
<tr>
<td><strong>Cases Pending Resolution</strong></td>
<td>105</td>
<td>38.9%</td>
</tr>
<tr>
<td><strong>Total Number of Cases Adjudicated by the Court through Summary Judgment or Trial</strong></td>
<td>50 out of 270</td>
<td><strong>18.5%</strong></td>
</tr>
</tbody>
</table>
Figure 4. Outcomes from the E.D. Texas.

- Plaintiff Favored 50% of the time
- Defendant Favored 11.1% of the time
- Cases Pending Resolution
Table 6. Combined average outcomes from all three courts.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Number of Cases</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcomes Favoring Plaintiff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parties Settled</td>
<td>117</td>
<td>32.9%</td>
</tr>
<tr>
<td>Case Adjudicated and Decided at Trial</td>
<td>31</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Outcomes Favoring Defendant</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary Judgment (at least partial)</td>
<td>18</td>
<td>5.1%</td>
</tr>
<tr>
<td>Case Dismissed</td>
<td>26</td>
<td>7.3%</td>
</tr>
<tr>
<td>Case Adjudicated and Decided at Trial</td>
<td>26</td>
<td>7.3%</td>
</tr>
<tr>
<td><strong>Cases Pending Resolution</strong></td>
<td>138</td>
<td>38.8%</td>
</tr>
<tr>
<td><strong>Total Number of Cases Adjudicated by the Court through Summary Judgment or Trial</strong></td>
<td>57 out of 356</td>
<td>21.1%</td>
</tr>
</tbody>
</table>
Figure 5. Average outcomes from all courts.

Plaintiff Favored - 41.6%
Defendant Favored - 19.67%
Cases Pending Resolution - 38.8%
Figure 6. Comparative outcomes from all courts.
Figure 7. Comparative settlement and adjudication rates.
Chapter V
Discussion

As further discussed below, the results provide support for three key findings. First, settlement rates are lower and adjudication rates are higher than the rates reported in previous studies. Second, the outcomes of patent infringement are inconsistent and venue dependent. Third, the comparative analysis between the Court of Claims and the other courts supports the view that outcomes of patent infringement lawsuits depend on the relative strategic, legal, and financial strength of parties. In order to address these issues, this study proposes new legislation for patent infringement lawsuits that utilizes existing judicial resources at the Patent & Trademark Office.

Settlement Rates Lower and Adjudication Rates Higher Than Reported in Prior Studies

It is clear from the results that the rates of settlement and adjudication depend highly on venue. Figure 6 compares the settlement rates for each court studied. The highest rate of cases settled in the E.D. Texas at 40.4%, followed by the E.D. Virginia at 10.7%. The Court of Claims had the lowest settlement volume at 6.67%. The highest rate of adjudicated cases occurred at the E.D. Virginia at 32.1%, followed by the Court of Claims at 23.3%, and the E.D. Texas at 18.5%.
Notably, the combined average outcomes presented in Table 6 do not adequately portray the legal landscape because the average combined rates do not provide information that is sufficiently precise. The average combined rates of settlement and adjudication, at 32.9% and 21.1%, respectively, portray a very different landscape than when the venue-specific rates are examined. These findings suggest that other prior studies that derived conclusions based solely upon aggregate results may lack adequate analysis.

The results also suggest that the rates of settlement are lower, while the rate of adjudication is higher compared to those reported in previous studies. This marks a significant departure from previous studies, indicating that the great majority of patent lawsuits settle, and very few cases are adjudicated. Authors of some prior studies examined settlement rates to conclude that 95% of patent cases settle or terminate in some form of non-adjudicated agreements. The difference in results between the previous studies and those reported here may be due to many reasons. As discussed previously, prior studies do not reflect recent data, may not offer comparative adjudication rates in different district courts, and may not even examine the Court of Claims. Significantly, many previous studies were published prior to the passage of the most significant patent legislation in decades, the America Invents Act. It is possible that the America Invents Act affected both settlement and adjudication rates.

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Irrespective of the reasons, society still faces significant costs from high settlement or low adjudication rates. As described in prior studies, vanishing patent trials are problematic because courts do not decide the validity of a sufficient number of patents on the merits. Low adjudication rates can damage the judicial system because movements away from public forms of dispute resolution achieve peace rather than justice, and defendants may be coerced into settlement due to power and resource imbalance. Moreover, as further explained below, some defendants may be coerced into settlement due to a power and resource imbalance in some but not all patent venues.

Outcomes are Inconsistent and Vary by the Court

The stark contrast in results pertaining to the different courts demonstrates that the outcomes of patent infringement are inconsistent and venue dependent. The outcomes dramatically and significantly vary from court to court. Figure 6 shows the comparative outcomes from all three courts studied. The percentage of the time a plaintiff receives a favorable outcome can be as high as 50% in the E.D. Texas. However, it can also be as low as 19.6% in the E.D. Virginia or 6.67% in the Court of Claims. Similarly, outcomes favoring the defendant vary significantly, depending on the venue. While the U.S. Government as a defendant receives 50% of the favorable outcomes in the Court of Claims, defendants in the E.D. Virginia and E.D. Texas, respectively, receive a favorable outcome 44.6% and 11.1% of the time.
The results with respect to summary judgment are also inconsistent. Defendants in the E.D. Texas have only a 2.2% chance of obtaining a summary judgment in Texas compared to 10% in the Court of Claims and 12.5% in the E.D. Virginia. The low number of defendants that win a case on summary judgment in Texas is significant because judges in the E.D. Texas are much more likely to find that it is appropriate for juries to rule on patent issues.\textsuperscript{62} Unlike judge only trials at the Court of Claims, that choice of judicial process dramatically raises the cost, as well as the risk, for defendants.

These types of inconsistent judicial results can harm the public good and public patent policies. First, contrary to the reasons for the rules of law in general, the results suggest that the interpretation and enforcement of patent laws do not always demonstrate consistent or predictable outcomes. The legal system builds upon a system of case precedent and \textit{stare decisis}. Without consistent or predictable patent case outcomes, the foundation of a just and equitable legal system may be at risk because there are no assurances that patent cases are treated equally. Second, inconsistent judicial results can lead to unjust enrichment. For example, some defendants may be forced to pay unreasonable royalties or valid patent owners may have difficulties enforcing their patented technologies. Third, inconsistent judicial enforcement may defeat the underlying purpose of patent laws—to encourage

\textsuperscript{62} See, e.g., Why East Texas Courts are back on Top for Patent Lawsuits, accessed August 20, 2015, https://snt148.mail.live.com/mail/ViewOfficePreview.aspx?messageid=mgOPDhlx5F5RG1gQAjfeQXsg2&folderid=flinbox&attindex=0&cp=-1&attdepth=0&n=78179891
innovation. It is possible that the failure of the judiciary to adequately enforce patent laws may discourage an inventor or a business from creating or commercializing new technologies. Fourth, inconsistent judicial enforcement probably encourages plaintiffs to forum shop. For example, a plaintiff who has a choice between suing a defendant in the Eastern District of Virginia or Texas may choose to intentionally file suit in the E.D. Texas, where it is more likely that the plaintiff will receive a favorable outcome.

Inconsistent judicial results are not unique to patent cases. In other areas of the law, such as family law, torts, and contracts, inconsistent judicial rulings may result when a forum has different laws that may apply to a given case. In that situation, a court may try to reconcile legal inconsistencies and dissuade forum shopping by applying the law of the state that has the closest nexus to the case under Choice of Law laws. However, patent legislation in the U.S. derives solely from Congressional legislation and statutory laws do not differ from one district to another. In contrast to other types of laws, inconsistent patent rulings may indicate problems with the scope of federal patent laws as written by Congress. Patent laws are different from other types of Federal laws because only one court can hear patent appeals from district courts, the Court of Appeals for the Federal Circuit. There are no split circuit court decisions that result in inconsistent judicial results.

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Outcomes May Depend on a Party’s Resources

In addition to demonstrating inconsistent judicial rulings, the comparative analysis performed in this study supports the view that outcomes of patent infringement lawsuits depend on the relative strategic, legal, and financial strength of the parties. The Court of Claims, the only venue where a plaintiff can sue the U.S. Government for patent infringement, gave defendants more favorable outcomes than any other court studied.

It is possible that the relative strength of the patents asserted against the U.S. Government is weaker than that of those asserted against third parties in other district courts. However, there is no evidence to support this notion. And, there does not appear to be an objective method to measure the relative strength of the patents.

The U.S. Government as a defendant may receive better results than non-government defendants do for many reasons. Unlike all other defendants, the U.S. Government defends itself in the same court for all patent lawsuits in which it is a named defendant. This gives the U.S. Government strategic advantages, such as predictable court rules, local and consistent rules of procedure, familiarity with the docket and length of time to trial, and an ability to frequently communicate and practice before a handful of judges. Currently, the Court of Claims has only 18 active judges, and it does not allow jury trials. In contrast, a typical non-federal government defendant
may have to navigate through 94 different court rules and local procedures, an unfamiliar docketing landscape, possible venue transfer options, and about 300 district or magistrate judges. To further complicate matters, a non-federal government defendant may face a jury trial where jurors may lack the competency to understand intricate scientific facts or arcane patent laws and regulations. Moreover, as discussed earlier, the U.S. Government is an extraordinarily large and well-funded entity that has the financial muscle to take cases to trial and receive adjudication if it wanted to do so. The typical defendant does not have such immense legal resources. Thus, the U.S. Government may receive better patent litigation results due to the strategic advantages of defending trials in one court before the same judges, and because of financial resources.

This study proposes a legislative remedy that may give private defendants in district courts strategic advantages similar to those that the government has at the Court of Claims. As discussed further below, mandatory Inter Partes Review (“IPR”) at the U.S. Patent & Trademark Office may help level the playing field for most defendants. Specifically, Congress can enact legislation, such that a district court must bifurcate a patent infringement case into two parts. In the first part, once a plaintiff files a patent infringement lawsuit, district court litigation can be stayed to give the Patent & Trademark Office the authority to decide all issues of patent validity during a trial

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proceeding, called an Inter Parties Review ("IPR"). If the Patent and Trademark Office still deem a patent valid after an IPR, the Federal District Court can then decide whether patent infringement occurred during the second part.

Following the passage of the America Invents Act in September 2012, IPR became available as a procedure to challenge the validity of patent claims based on patents and printed publications. In general, a real party in interest to a lawsuit can initiate an IPR (a “Petitioner”) to challenge a patent at issue if the Petitioner establishes a reasonable likelihood that they will prevail on at least one claim at the Patent & Trademark Office. Although the Petitioner can request a stay from a district court during the one-year pendency of the IPR, a district court is not required to grant a stay. If the stay is not granted, the Petitioner must engage in concurrent litigation at the Patent and Trademark Office as well as the district court.

Compared to a district court, the Petitioner in an IPR is limited in the types of issues or grounds for asserting invalidity at the Patent & Trademark Office. Currently, a Petitioner can initiate an IPR only on grounds of novelty or non-obviousness that could be raised under 35 U.S. Code § 102, or 35 U.S. Code § 103. In addition, the Petitioner

65 The relevant portions of 35 U.S. Code § 102 states:
(a) Novelty; Prior Art.— A person shall be entitled to a patent unless—
(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or
(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122 (b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.
(b) Exceptions.—
can only rely on prior art consisting of patents or printed publications. If Congress enacts new legislation that mandates IPR during a lawsuit, it can enlarge the grounds by which a Petitioner can bring an invalidity defense, and it can mandate a stay at a district court.

Mandatory IPR may help level the playing field for all defendants and give non-governmental defendants some of the strategic and financial advantages that the U.S. Government has at the Court of Claims. Similar to the U.S. Government’s strategic advantage in the Court of Claims, mandatory IPR would give ALL defendants predictable court rules at the Patent & Trademark Office, consistent rules of procedure, familiarity with a docket, a limited amount of time the Court must reach a decision (one year by Statute), and an ability to frequently communicate and practice before known judges. The judges at the Patent and Trademark Office are subject matter experts in patent laws and in technical or scientific areas. Accordingly, these subject matter experts may be better suited to decide whether patents are valid because District Court Judges and

(1) Disclosures made 1 year or less before the effective filing date of the claimed invention.— A disclosure made 1 year or less before the effective filing date of a claimed invention shall not be prior art to the claimed invention under subsection (a)(1) if—
(A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or
(B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

35 U.S. Code § 103 states:
A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.
juries may be uncomfortable invalidating patents they do not understand. Mandatory IPR also helps parties to a lawsuit financially because it limits expenditures during this part of the trial. IPR costs $27,000 in Patent & Trademark Office fees to initiate. Moreover, discovery is limited and must conclude within one year. In comparison, litigation at a district court may go through years of motions and discovery before the court reaches a decision on patent validity. IPR offers speedy litigation and lower costs for all parties. For all these reasons, IPR gives all parties advantages similar to those that the U.S. Government has at the Court of Claims.

Mandatory IPR and bifurcated patent cases can help meet public policy objectives. High settlement of patent cases can pose a real harm to the public because they can leave potentially invalid patents intact, thwart competition and lead to an increase in technology prices. Mandatory IPR may reduce the number of settled patent cases as well as guarantee that every patent case will be adjudicated on some of the merits. It can decrease forum shopping with respect to patent validity, and unify the adjudication and interpretation of patent laws concerning validity because all validity decisions will be made before the same court at the Patent & Trademark Office. IPR can reduce the impact of jurisdictions, such as the E.D. Texas, that do not invalidate many patents on the merits. In addition, mandatory IPR can hamper the efforts of patent trolls because it can compel a litigation stay, and threaten trolls with a quick invalidity decision.
Critics may oppose mandatory IPR for several reasons. They may claim that mandatory IPR violates Article 7 of the U.S. Constitution, which guarantees the right to a jury trial where the value of a controversy exceeds $20.00. These critics may also point out that the judges at the Patent & Trademark Office are not Article 3 judges. Patent & Trademark Office judges are Article 1 judges because they are administrative law judges that are appointed by the executive branch. Critics may further contend that it violates the Constitution’s separation of powers to have Article 1 administrative law judges invalidate a patent or take away a patent owner’s property rights in a patent. However, it is unlikely that these arguments will prevail. Unlike other forms of property, patents are not a vested right. The Patent and Trademark Office grants a patent. Arguably, it can also invalidate a patent or take it away if the original issuance was erroneous. In addition, the Constitution does not require patent validity decisions to be made by an Article 3 court nor does it require a jury trial. While the Constitution does require Congress to enact laws to promote the progress of science through exclusive rights, there is no provision in Constitution or in case law that compels an Article 3 Court or a jury to decide issues of patent validity.

In response to some of the observed problems in patent litigation, other scholars have proposed specialized small claims courts, specialized judicial panels, uniform

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district court rules, or increasing resources to district courts so that the courts can quickly decide new cases.\textsuperscript{69} These solutions, however, involve expenditure of new resources that may be very difficult to obtain. More importantly, these solutions may not address the other strategic advantages that the U.S. Government has at the Court of Claims. Mandatory IPR uses existing specialized resources at the Patent and Trademark Office. As the Patent and Trademark Office is a self-funding entity, any new expenditure for an increased volume of IPRs would come from filing fees. Due to all aforementioned reasons, this study recommends that Congress enact new legislation that mandates IPR in all patent infringement lawsuits.

Chapter VI

Conclusion

This study is a part of an emerging empirical effort among patent law scholars to identify strategies to improve the patent system. This thesis attempted to answer some questions regarding the role played by different courts by examining a limited set of patent cases in three district courts, the Court of Claims, the E.D. Virginia, and the E.D. Texas. It provides new data based on patent cases litigated in the years 2011-2014, and tracks the evolution of these cases to dismissal, settlement, or adjudication on the merits. The thesis also tracked, calculated, and compared the volume of plaintiff or defendant favored outcomes, calculated the number of cases dismissed, and the cases pending resolution in each of the three courts.

The results show that the rates of settlement are lower than those reported in previous studies and that the rate of adjudication is higher than previously claimed. In addition, it appears that settlement rates, adjudication rates, and the outcomes of patent infringement are inconsistent and venue dependent. The comparative analysis between the Court of Claims and the other courts supports the view that outcomes of patent infringement lawsuits depend on the relative strategic, legal, and financial strength of parties. In order to address these issues, reduce forum shopping, and for public policy reasons, this study proposes a new legislation that would make IPR mandatory in patent infringement lawsuits. This work has significant implications for patent litigation and for recent efforts to reform the patent system. The results yielded
by this investigation strongly suggest that any proposed changes in the patent laws
should consider how to give non-governmental defendants strategic, legal, and financial
resources similar to the ones that the U.S. Government has at the Court of Claims.
Although it may not be possible to provide vast financial resources to every defendant
that the U.S. Government possesses, it may be possible to significantly lower litigation
costs during an IPR for a typical defendant.
Definition of Terms

“Cases decided at summary judgment”: Cases in which one party is entitled to a judgment as a matter of law prior to a verdict because no material issue of fact exists. With respect to patent infringement cases, the cases include instances where a judge has issued a dispositive opinion regarding the validity of a patent and/or infringement.

“Cases decided at trial”: Cases that include those District Court patent infringement cases where an opinion was rendered by a judge or jury at trial. Success includes instances where a liability and damages or a permanent injunction decision was made in favor of the patent holder.

“Enforcement”: Enforcement occurs when a patent owner uses civil litigation to collect royalties from a third party for unauthorized use of his/her patent or uses civil litigation to enjoin a third party from using the patent owner’s invention. In the United States, a patent owner can seek reasonable royalties from the U.S. Government for patent infringement but cannot obtain an injunction.

“Infringement”: Infringement occurs when a person or entity uses the invention claimed in a patent without permission of the patent’s owner.

“Inventor”: An inventor is the person or persons in United States patent law, who contribute(s) to the claims of a patentable invention.
“Patent”: The exclusive right given by the U.S. Government to an inventor to exclude others from making, selling, or using the invention for a certain period of time.

“Patent application”: An application for a patent is a request by an inventor to the appropriate governmental authority to grant the inventor a patent. In the United States, the Patent and Trademark Office is the Federal Agency responsible for granting patents.

“Patent eligible subject matter”: An invention or subject matter that can receive patent protection from the U.S. Patent and Trademark Office.

“Patent laws”: U.S. statutes and case law that pertain to the creation, ownership, and enforcement of patents.

“Settlement”: A settlement occurs when the parties to a patent infringement lawsuit negotiate a licensing arrangement under which the patent owner is paid a royalty for use of the patent. Such arrangement can also include retroactive payments for prior use of the patent. In this thesis, settlement serves as a proxy for plaintiff success.


