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IMPROVING FEDERAL COURT ADJUDICATION OF PATENT CASES

HEARING

BEFORE THE

SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

OF THE

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IMPROVING FEDERAL COURT ADJUDICATION OF PATENT CASES

THURSDAY, OCTOBER 6, 2005

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COURTS, THE INTERNET,
AND INTELLECTUAL PROPERTY,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Subcommittee met, pursuant to notice, at 4:34 p.m., in Room 2141, Rayburn House Office Building, the Honorable Lamar Smith (Chair of the Subcommittee) presiding.

Mr. SMITH. The Subcommittee on Courts, the Internet, and Intellectual Property will come to order.

I'm going to have an opening statement. Then the Ranking Member will have an opening statement. And then Congressman Issa of California will have an opening statement, as well. Let me recognize myself for mine.

Today, our Subcommittee will begin an examination of the state of patent adjudication in the Federal judiciary. In 1992, the Advisory Commission on Patent Law Reform stated, in a report to the Secretary of Commerce, "One of the most significant problems facing the United States patent system is the spiraling cost and complexity associated with the enforcement of patent rights."

Since that report, there has been an explosion in the cost, volume of cases, and complexities associated with enforcing patent rights. Though the number of patent cases filed in U.S. district courts has almost doubled in the last decade, the reality is that patent cases make up a small fraction—typically, less than 1 percent—of total cases filed in a given court.

Nevertheless, this small percentage of cases accounts for nearly 1 in 10 complex cases, which require 20 or more days of trial and demand disproportionate resources from district courts and attention from trial judges.

The basic statutory structure of the Federal judicial system, which is responsible for adjudicating patent cases has been largely untouched by Congress for more than 20 years. In the last significant structural change, Congress created the Court of Appeals for the Federal Circuit in 1982, as part of the Federal Courts Improvements Act.

In establishing the Federal Circuit, Congress eliminated the traditional ability of regional courts of appeals to hear patent cases, in the interest of promoting greater stability in the patent law, increasing uniformity of decisions, and restricting forum shopping.

Nevertheless, there is a growing awareness that the U.S. patent adjudication system remains beset with inefficiencies, inconsistencies, and opportunities for forum shopping.

Two of our witnesses today will provide the Subcommittee with considerable anecdotal and statistical evidence that suggest the patent adjudication system is not functioning in an efficient, cost-effective, and predictable manner.

While acknowledging deficiencies, our remaining witnesses will articulate the view that there is insubstantial evidence that the system is broken, and postulate that none of the proposed solutions are guaranteed to work.

Still, there is a widespread and a well deserved perception that patent litigation is too expensive, too time consuming, and too unpredictable. In a knowledge-based economy that is intended to reward innovation, the cost and effects of unnecessary delays and uncertainty are not incidental or academic.

A patent claim that is construed too broadly deprives potential competitors and consumers of new products. One construed too narrowly deprives patent holders of the full benefit of their innovation.

As the Subcommittee with jurisdiction over both the administrative functions of the United States Patent and Trademark Office and the Federal judiciary, we should begin to address these issues.

And I want to acknowledge here the role of Representative Issa, who suggested that we begin this inquiry. As one of the few Members of Congress who has actually held patents, he brings a practical perspective to our work on the Committee. And after I finish asking my questions today, I'm going to turn the gavel over to Representative Issa.

That concludes my opening remarks. And the gentleman from California, the Ranking Member, Mr. Berman, is recognized for his.

Mr. BERMAN. Well, thank you very much, Mr. Chairman, for scheduling this oversight hearing. This hearing about the courts that handle patent litigation is an interesting intersection of two separate issues within the Subcommittee's jurisdiction. Patents are the cornerstone of the economy. They provide incentive for innovation. Therefore, the effect litigation of patents has on the preservation of patent rights is all the more important to continually assess.

The combination of the complex science and technology, the unique patent procedures and laws, the historical right to jury trials, the equitable division of labor and administration of the courts and their dockets, and the multiple methods available for dealing with the issues raised by patent litigation makes improvement of the patent adjudication system a uniquely complicated and difficult task.

Many say the system works well. Yet at the same time, some say the high costs of litigating and the reversal rate at the district court level reveal otherwise. These complexities appear to have distorted patent markets and patent economics.

The increasing costs of litigating patent infringement and validity issues now frequently gives weak, untested, and presumptively valid patents the same kind of protection that was previously only granted to or reserved for strong or judicially tested patents.

Patent quality has been a long-time priority of mine and, with the introduction of the Patent Reform Bill, we are trying as a Sub-

committee to ensure the quality of patents. Even so, despite the many efforts made so far, there are still many legal scholars, patent owners, and members of the judiciary and patent bar who believe changes to the patent litigation process in the courts are also necessary to improve the quality of patents.

The creation of the Court of Appeals for the Federal Circuit alleviated the inconsistencies at the regional circuit court level. However, some continue to raise concerns about forum shopping at the trial court level.

The Court of Appeals for the Federal Circuit has placed the job of construing patent claims in the hands of our Federal district judges, and kept other complex issues, such as non-obviousness and equitable conduct and novelty, in the hands of the jury. Concerns have been expressed about whether a judge or jury can truly learn the intricacies of some of the science and technology placed before them during the length of a typical patent trial.

Hopefully, if the post-grant opposition procedures in the Patent Reform Bill are enacted, this will address many of these complex issues before resort to district court litigation occurs.

Recent accounts demonstrate that as time passes and the district court Federal judges are becoming more proficient at application of the claim construction rules spelled out by the Court of Appeals for the Federal Circuit in Markman, that that reversal rate is coming down. However, evidence suggests that our Federal district courts still spend a much greater ratio of time on patent cases than any other types of cases that come into their courts.

There are many proposals for change in the patent adjudication system. Before implementing changes, we must first be able to fully understand the issues confronting the system, the many options that may be available to remedy issues in the patent litigation system that have been raised, and the effects of those proposed solutions.

Thank you, Mr. Chairman.

Mr. SMITH. Thank you, Mr. Berman.

The gentleman from California, Mr. Issa, is recognized for his opening statement.

Mr. ISSA. Thank you, Mr. Chairman. I greatly appreciate your holding this important hearing, a hearing that closely parallels the patent reform effort that you have spearheaded. I must say that I have never seen such interest generated about patents than you have generated in this last year.

Your patent reform, to a great extent, is changing the product of the patent. This hearing today, hopefully, will begin the process of talking about the delivery system, or the evaluation system post-patent, beyond the Patent and Trademark Office.

I believe that the axiom that "justice delayed is justice denied," which is often used in the case of misdemeanors and felonies, is just as applicable in the business world, and certainly has proven to reduce the value of a patent until justice is finally delivered.

As many of you know, I have a background in the electronics business. The company that I founded vigorously protected its staple of intellectual property, as did some of my competitors. This resulted in my involvement in numerous patent suits before the district courts, the ITC, and the fed circuit.

When I was in business, I had to accept the cards that were dealt to me; but now I am in Congress, and have the unique and pleasurable opportunity to look into reforming this system so that others would not have to endure many of the examples that I found when in the private sector.

I approach this effort with one key guiding principle: Business must have confidence in its intellectual property, confidence that derives from predictability of court decisions. This certainty allows a company to plan which products it will invest and develop, which it will market, and also fosters confidence from the investment community.

District court patent holdings are currently reversed at least 35 percent of the time. And as my colleague from California said, although that is coming down, I believe it is coming down very slowly, and will not come down much further without affirmative action by this body.

Judges have often commented that this makes them feel like their time and effort are considered by the fed circuit to be something of a rough draft. Such high reversal rates encourage entities to enter into more appeals, rather than less, on patent issues than would otherwise occur; dragging out litigation for years longer than is necessary. Obviously, this does not foster certainty.

We need to find mechanisms for improving the track record of the district courts. I think there is no one that would disagree with that. And that is why we are here today.

I have circulated one proposal, to conduct a pilot program within the district courts to encourage patent specialization among the district judges. Unlike many drafts you'll see, where the author believes that they have created the perfect document, this is a deliberately imperfect document.

I'm looking forward to each of you responding as to the flaws you saw. Hopefully, many of those flaws will be common flaws. Certainly, the length of the study is open to debate, as are many of the other hurdles that we have to get past in this study; not the least of which is that everybody at the appellate level and at the district level is concerned that somehow any change will affect their lives adversely.

I must add to this that we're also looking—or at least, that I'm hoping to encourage the Chairman and the Committee to look into several other possible reforms; including, as part of this pilot, the moving up, or the encouraging of moving up, of the Markman process to the earliest point, as far before a potential trial as possible; and also, formally opening up the interlocutory appeals process to the fed circuit on claims construction, since that is where the majority of the appeals are, and in any study our goal would be to accelerate the process of learning of whether we're doing better or worse by this specialization.

I appreciate the witnesses joining us today. And I have had an opportunity to review your written testimony, but I look forward to a lively discussion afterwards. And I yield back, Mr. Chairman.

Mr. SMITH. Thank you, Mr. Issa. Before I introduce our witnesses, would you all please stand and be sworn in.

[Witnesses sworn.]

Mr. SMITH. Thank you, and please be seated. Let me say, for the benefit of those in the audience today, that this is the first day Congress has been in session this week, and we don't have any votes until 6:30 tonight. Despite that, this is a very good turnout of Members, and I appreciate their being here, as well as the people in the audience being here to hear what the witnesses have to say.

Our first witness is Kimberly A. Moore, who is a professor of intellectual property law at George Mason University School of Law. Professor Moore is a co-author of the textbook entitled "Patent Litigation and Strategy." She has conducted extensive empirical research on intellectual property topics, and has written numerous articles on patent case adjudication and patent litigation in general.

Professor Moore earned her juris doctorate from the Georgetown University Law Center. She received a bachelor of science in electrical engineering and a master of science from MIT.

Our second witness is John B. Pegram, who is senior counsel to the New York office of Fish and Richardson, where he specializes in patent litigation.

Am I pronouncing that right, "Pegram"?

Mr. PEGRAM. You are, sir. Yes, you are.

Mr. SMITH. Thank you. Thank you. Mr. Pegram is a past president of the New York Intellectual Property Law Association, and a past director of the American Intellectual Property Law Association, where he twice served as chair of the patent litigation committee.

Mr. Pegram received his law degree from New York University, and earned an undergraduate degree in physics from Columbia University.

Our next witness is Chris Katopis, who is a counsel with the intellectual property practice group of Drinker, Biddle and Reath. Mr. Katopis previously served as director of congressional relations for the U.S. Patent and Trademark Office. In that capacity, he was responsible for legislative policy within the Office of Legislative and International Affairs, which included patents, trademarks, copyrights enforcement, and other domestic and international intellectual property matters.

Mr. Katopis is also an adjunct professor at the Catholic University. He attended the University of Pennsylvania, where he was awarded a bachelor of science degree in biomedical engineering. He received his JD from Temple University.

Our final witness is the Honorable T.S. Ellis, III, who serves as U.S. District Judge in the Eastern District of Virginia. Judge Ellis was nominated by President Ronald Reagan on July 1, 1987, and confirmed by the U.S. Senate on August 5, 1987. Often referred to as the "rocket docket" by members of the legal profession, the Eastern District of Virginia has for years been among the top 25 districts in adjudicating patent cases.

Judge Ellis received his JD from Harvard University, where he graduated magna cum laude. He earned his bachelor of science from Princeton.

Now, welcome to you all. And we have your written statements which, without objection, will be made a part of the record. And please limit your testimony, as you already know, to 5 minutes.

Judge Ellis, I'm tempted to look at the quick time it took you to be confirmed in 1987. I bet anybody now being considered would be jealous of those few days that it took back then.

Our first witness and first person to testify today is Professor Moore, if you will begin.

TESTIMONY OF KIMBERLY A. MOORE, PROFESSOR OF LAW, GEORGE MASON UNIVERSITY SCHOOL OF LAW

Ms. MOORE. Chairman Smith, Ranking Member Berman, and Members of the Subcommittee, thank you for this opportunity to testify on this very important topic of Federal court adjudication of patent cases. I plan to focus my testimony today on two problems that I perceive confronting the patent litigation system.

The first: Let me assure you, forum shopping is alive and well in patent cases in the district courts. If you look at my studies—one from the 5-year period, 2000-2004—you find that 47 percent of all patent cases are consolidated in just the top ten districts. Well, that might suggest that: Why do we need anything specialized? We have great consolidation already. The problem is, when I compare that to my data from the five previous years, there were only 44 percent consolidated.

I'm making a bit of a joke here. The real problem is, it's not the same ten districts. So you have consolidation among ten districts 5 years ago; you have the same amount of consolidation now, but it's not the same ten districts. Obviously, there's some overlap, but there also are some changes and some differences.

I'm articulating these statistics in the study in more detail in a paper that I have forthcoming. I've titled it "Patent Lemmings," like the birds.

Okay. So what I wanted to address in particular, in the way of a solution, would be the change to the patent venue statute. Lucky for me, Congress beat me to it. In H.R.2795, in the amendment in the way of a substitute, Congress has introduced a limitation to the venue statute, which I find very compelling and favor strongly.

You would limit venue to the defendant's principal place of business, or where the defendant has committed acts of infringement and has a regular and established place of business. This is a very important limitation. Currently, patentees have the ability to sue in any of the 94 district courts—virtually unfettered ability.

My only two very minor suggestions with regard to the pending legislation would be to expand the idea of corporate residence to include State of incorporation. I think that it would be fair that a corporation could be sued in the State in which it incorporated. I would also suggest that you create an exception to the venue rule that permits patentee plaintiffs to consolidate their actions pursuant to an MDL agreement—pursuant to the MDL procedures, without a venue obstacle. So you would create an exception to the venue statute for MDL consolidated cases.

The Coalition has made a recommendation to this Committee in the way of, instead of changing the venue statute, introducing a

transfer of venue statute that is much more vibrant than the currently existing one. I prefer Congress' way of doing it.

In short, the transfer of venue statute will not level the playing field, and it just adds another layer to what is already extensive, complex patent litigation. If you recognize there is a problem existing in forum shopping, the way to solve that problem is ex ante, with the venue statute, not ex post, with a motion to transfer. So I think that it's in everyone's best interest that Congress continue to pursue the venue statute in H.R. 2795 exactly the way it has been currently articulated.

This brings me to my second proposal: the idea of designating specialized district court judges to hear patent cases. Patent cases are complex, difficult, time consuming, and expensive. Despite the nature of these cases, they are litigated before generalist judges and lay juries.

The United States is unique in this respect. No other country allows lay juries to decide patent cases. In fact, many countries have created specialized patent trial courts.

We have nearly a thousand district court judges capable of currently hearing patent cases; 680 active judges, and another 290 senior judges. There are only about 3,000 patent cases a year filed, and only 3 percent go to trial.

As you can see, the result is that district court judges simply do not get sufficient exposure to patent cases to develop the kind of expertise that would assist them in adjudicating these very complicated cases. Certainly, a few notable patent jurists have arisen from the mass of district court judges who hear patent cases, and they truly are exceptional patent jurists.

This is why my proposal is not to create a specialized court. I actually don't think that's the way to go. And it would be problematic, in light of the fact that we already have a specialized appellate court. But instead, to designate individual judges—the number to be decided according to the docket—in each district, that would hear all of the patent cases in that district.

Why do we need this? Well, we need it because of the forum shopping. But we also need it because of the high reversal rate that currently exists among the district court judges.

It is not for lack of trying. Our district court judges are unbelievably dedicated and hard-working. They have ever-increasing dockets that they continually face. Despite this, they try very hard to construe patent claims. Yet the reversal rate continues to be about 35 percent.

One thing I want to point out to the Committee in particular: The reversal rate is actually rising; not going down. In my study, which I produced to the Committee as one of the published papers, the reversal rate has actually increased over the course of the last 10 years. The Federal Circuit has been reviewing the district courts' claim construction for about 10 years since Markman, and the reversal rate is in fact climbing.

So my proposal with regard to specialized district court judges would include allowing those judges to continue to hear the regular cases that district court judges hear. They should have a general docket. They should remain generalist judges.

In the short term, I am very favorably inclined toward Congressman Issa's proposal for the pilot program. I have just a few very modest, humble suggestions. The first is, 1 year is not enough time.

Mr. SMITH. Professor Moore, your time has expired.

Ms. MOORE. Oh, thank you, Chairman. I'm very sorry.

Mr. SMITH. And maybe we could get those minor suggestions in the question-and-answer period.

Ms. MOORE. Thank you, Chairman.

[The prepared statement of Ms. Moore follows:]

PREPARED STATEMENT OF KIMBERLY A. MOORE

Chairman Smith, Ranking Member Berman and members of the Subcommittee, thank you for the opportunity to testify today on the topic of improving federal court adjudication of patent cases. Patent litigation is critically important to the functioning of our patent system. Without a credible, predictable means of enforcing patent rights, the rights themselves would cease to function effectively to spur innovation.

I plan to speak today about two problems confronting the patent litigation system.

Patent Venue Statute: The first is the virtually unfettered ability of patentee plaintiffs to file a patent suit in any of the 94 different district courts. The patent venue statute, 35 U.S.C. § 1391, allows a corporation to be sued anywhere that personal jurisdiction exists which is any judicial district in any state where products are sold. This was not a problem when commerce was limited geographically, but in this day of national and, in fact, global commerce, this venue statute is no longer workable. The Amendment to H.R. 2795 addresses this problem by limiting venue to the judicial district where the defendant resides or the judicial district where the defendant has committed acts of infringement and has a regular and established place of business. The Amendment defines corporate residence as the district where the corporation has its principle place of business. I support this change to the venue statute.

I have two minor suggestions to make. First, expand the definition of corporate residence to include state of incorporation. Venue is appropriate in either the judicial district where the principle place of business is located or the judicial districts in the corporation's state of incorporation. When a corporation selects a state in which to incorporate and thus avails themselves of the corporate laws of that state, it seems reasonable to permit them to be sued there.

My second minor suggestion is to consider creating an exception to the venue rule that permits patentee plaintiffs to consolidate actions against defendants pursuant to the MDL procedures. If a patentee would like to simultaneously sue multiple defendants for the same or similar acts of infringement, it is more efficient to have these cases consolidated in a single forum and venue ought not to be an obstacle to that consolidation.

I have also read the Coalition's recommendation for venue reform which instead suggests a more vibrant transfer of venue statute. I favor the Amendment to H.R. 2795. It is more effective and efficient to fix a problem ex ante than ex post. Transfer of venue motions will delay resolution and divert resources unnecessarily. Moreover, the Coalition draft language which allows the action to go forward anywhere there is "substantial evidence or witnesses" is sufficiently vague and likely to cause additional unnecessary litigation.

The Coalition draft also suggests that venue ought to be appropriate in any judicial district where the patentee resides or maintains its principle place of business. The suggestion being that it should not be fair to make the patentee bear the expensive of litigating away from home. First, let me note that this merely shifts the burden of litigating away from home from the plaintiff to the defendant. Second, patent litigation now costs on average two to four million dollars per side, the marginal cost to the patentee of conducting the litigation in a district other than its home turf is not likely to inhibit anyone who can already afford this expense. Moreover, there are always contingent fee options and patent infringement insurance which aid patentees in enforcing their rights. Finally, the patentee who files suit gets to select the judicial district and the Amendment to H.R. 2795 gives her several districts from which to choose. Giving the patentee the option of choosing its own district would allow patent trolls to game the system more than they already do. They would simply locate themselves where they believe the laws and procedures to be most favorable and then litigate all their cases there.

Amending the venue statute as proposed in H.R. 2795 with the modest changes suggested above will significantly reduce forum shopping by plaintiffs and some of the unpredictability which plagues the patent litigation system.

Forum Shopping in Patent Cases: To the extent that there is any doubt about the existence and pervasiveness of forum shopping in patent cases, let me offer some empirical evidence. *See Kimberly A. Moore, Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation,* 79 N.C. L. REV. 934 (2001). Patent cases are not evenly distributed among the 94 district courts. Comparing the data on patent litigations from the five year period 1995–1999 (9542 patent cases) and 2000–2004 (12,768 patent cases) provides insight into the changing landscape of patent litigation. In the last five years, the top ten district courts have 47% of all patent cases. Comparing this to the data from 1995–1999, where the top ten jurisdictions had 44%, it seems at first blush like patent cases are even more heavily consolidated now in just a few key jurisdictions than they were five years ago. The problem is that it is not the same key jurisdictions. The data show, however, that plaintiffs in patent cases are moving en mass away from some judicial districts and towards others. I have titled the draft paper where I present these empirical results—*Patent Lemmings.*

For example, the Eastern District of Virginia, affectionately know as the Rocket Docket, used to be a hub for patent cases. In 1997, 3.2% of all patent cases were resolved there. In 2004, the percentage dropped to 1.6% (a 50% decrease)—dropping in the rankings from seventh to twenty-third. The Eastern District of Texas, on the other hand had 0.3% of all patent cases in 1997 and in 2004, it had 1.9% (a 633% increase)—going from tied for fifty-eighth to seventeenth. These changes are not due to a major relocation of large sectors of industry—they reflect forum shopping on the part of opportunistic plaintiffs who perceive a benefit to filing in the Eastern District of Texas and who have grown disenchanted with the Eastern District of Virginia. I am not suggesting that the cases that are filed in Texas belong more properly in Virginia, in fact, the Eastern District of Virginia was not the appropriate venue for many of the patent cases that had been filed there—a fact reflected in their 16% transfer rate in 1997.

I have also found that the percentage of patent cases in a given district is not always linked to the percentage of civil cases filed there or the percentage of patents acquired by the residents of the district. For example, the District of Delaware, had 4.8% of all patent cases resolved in the last five years, but only 0.4% of all civil cases generally. Delaware's high percentage of patent cases is not correlated with patenting by local industry either—Delaware only has 0.41% of U.S. patents issued to U.S. inventors. Some practitioners claim that Delaware is selected by patentees because it is a pro-patentee forum. Empirical evidence demonstrates that Delaware judges do not grant summary judgment as frequently as judges in other courts and that summary judgment is more often a win for the infringer. The failure to grant summary judgment means that Delaware allows a much higher than average number of cases to go to trial—generally a trial by jury. Given the perception that juries are pro-patentee (which is supported by empirical evidence), patentees may prefer Delaware for this reason.

My conclusion from this empirical analysis is that plaintiffs, who are patentees in 85% of the patent suits, forum shop and their preferences change over time which undermines any expertise judges in a given district do develop in patent cases. I have also found considerable variation in the manner of patent case adjudication by the different district courts and significant differences in win rate. In short, patentees are gaining an unfair advantage in litigation by forum shopping. The Amendment to H.R. 2795 would significantly curtail this gamesmanship and level the playing field.

This brings me to my second, related proposal.

Designating Specialized District Court Judges: Patent cases are complex, difficult, time consuming and expensive. Despite the nature of these cases, they are litigated before generalist judges and lay juries. The United States is unique in this respect. No other country allows lay juries to decide patent cases. In fact, many countries no longer have patent cases decided by generalist judges and have instead created specialized patent trial courts such as Germany, China, Japan, the United Kingdom, Australia, New Zealand, Singapore, Zimbabwe, Jamaica, Kenya, Thailand, Korea and Turkey.

In the United States, there are 680 active district court judges in the 94 districts (and 290 additional senior judges). With 2800 patent cases per year and only 3% going to trial, district court judges have little exposure to patent cases. If patent cases were consistently being consolidated in the same jurisdictions, then the market would itself be creating specialization and there would be no real need for a specialized trial court. However, as the empirical evidence demonstrates, the distribu-

tion of patent cases among the judicial districts fluctuates with patentee preferences. Although a few notable patent jurists have arisen from the mass of district court judges who hear patent cases, forum shopping combined with the small number of cases has inhibited judges from developing expertise.

If all patent cases in a given district were consolidated in one or more designated trial court judges, they would have a better chance to develop expertise in this area. The high claim construction reversal rate of district court judges supports the need for such specialization. Claim construction is the most important part of any patent dispute. The Supreme Court ruled that claim construction ought to be performed by district court judges rather than juries because they would be better at it. The Federal Circuit held that claim construction is a matter of law which results in de novo review of all district court claim construction decisions. In an empirical study of all claim construction decisions appealed to the Federal Circuit from 1996 through 2003, I found that district court claim constructions were reversed 35% of the time. Worse yet, the reversal rate is still going up ten years after district court judges were charged with the task of construing patent claims indicating that district court judges are not getting better at construing patent claims. See Kimberly A. Moore, *Markman Eight Years Later: Is Claim Construction More Predictable?,* 9 LEWIS & CLARK L. REV. 231 (2005). *See also Kimberly A. Moore, Are District Court Judges Equipped to Resolve Patent Cases?,* 15 HARV. J. L. & TECH. 1 (2001). Given that claim construction is the starting point for any infringement or validity analysis, the high reversal rate of district court determinations results in considerable uncertainty until the Federal Circuit review process is over. Since the Federal Circuit has declined to review any claim construction decisions on interlocutory appeal, the parties and the district court are forced to adjudicate the entire patent case on what ends up being a faulty claim construction more than one third of the time. The inefficiencies and frustrations are obvious.

The high reversal rate undermines confidence in district court decision-making and the integrity of our legal system. It also results in considerable frustration for the district court judges. This brings me to my proposed solution to these serious and pervasive problems—designating a limited number of district court judges in each judicial district to adjudicate patent disputes. The number of designated judges would, of course, have to be correlated with the size of the court generally. Clearly one district court judge would not be able to handle all the patent cases brought in the Northern District of California for example.

Although there would certainly be advantages to a single specialized patent trial court, in my opinion, designating trial court judges in each judicial district is a better approach. If a specialized trial court were created, it would have to be given exclusive jurisdiction rather than concurrent jurisdiction with the district courts. Concurrent jurisdiction would merely provide yet another forum shopping alternative.

A specialized trial court would eliminate forum shopping, inconsistency and unpredictability which would decrease patent litigation overall. The judges on a specialized trial court would develop greater expertise in patent law due to increased exposure. Moreover, creation of a specialized patent trial court would help reduce the crowded dockets of the district courts.

There are, however, drawbacks to a specialized patent trial court. First, specialized courts are potentially subject to capture by the bar—in this case the patent bar. Second, having only one trial court for all patent cases would eliminate the percolation that currently occurs among the various district courts. Having numerous courts simultaneously considering similar issues permits the law to evolve and often aids in flushing out the best legal rules. Unlike other countries, the United States already has a specialized appellate court which resolves all patent cases—the United States Court of Appeals for the Federal Circuit. Given the single appellate court for all patent cases, adding a single specialized patent trial court would in my opinion be too much specialization.

Instead, I propose that a single judge or a small number of judges in each judicial district be designated to adjudicate all the patent cases filed there. To the extent possible, the docket of the designated judge should not be limited to patent cases. Ideally, the judge who is appointed to this role would be technically educated or trained and/or have a patent background. This proposal would considerably limit the number of potential judges who would preside over patent cases and increase predictability without loosing the percolation and considered development of the law. Through experience these judges would develop more expertise at resolving patent cases. It would, of course, be important, that the designated judge remain the designated judge. In short, this position should not be rotated among the judges or the benefits of experience and predictability would be entirely eviscerated. Limiting the number of judges who adjudicate patent cases will decrease forum shopping and with experience these judges will develop greater expertise.

Let me caveat this proposal by saying that I am not meaning to criticize the existing district court judges. They are charged with a difficult job and an ever increasing workload. District court judges work hard to resolve patent cases. In fact, many excellent patent jurists have evolved from this group. Yet, even some of these judges have raised concerns about adjudicating patent cases and one has publicly advocated for a specialized trial court to adjudicate patent cases. *See* Judge James F. Holderman, *Judicial Patent Specialization: A View From the Trial Bench,* 2002 U. ILL. J.L. TECH. & POL'Y 425 (2002).

Let me also explain that I am not proposing that the specialized trial court eliminate the role of the American jury in patent litigation. Under current interpretations of the Seventh Amendment, it seems unlikely that the jury could ever be entirely removed from patent litigation. To the extent though that there is concern about juror comprehension or bias, a specialist district court judge would be in a better position to preside over patent cases to ensure more informed, accurate decision-making by the jury. The specialist judge, by virtue of his knowledge and experience, would also be better able to resolve issues as appropriate on summary judgment, eliminating unnecessary jury trials.

In conclusion, empirical evidence substantiates forum shopping by patentee plaintiffs which is inefficient and reflects inequity in our legal system. By amending the patent venue statute, the Amendment to H.R. 2795 will significantly level the playing field for plaintiffs and defendants in patent cases. While changing the venue statute might result in a greater dispersion of patent cases among the judicial districts, designating specialized judges in each judicial district would consolidated patent cases among a smaller number of judges. The experience and expertise gained through this consolidation will increase predictability, reduce litigation, improve patent case adjudication and enhance the integrity of the legal process.

[Additional material submitted by Ms. Moore is located in the Appendix.]

Mr. SMITH. Thank you. Mr. Pegram.

TESTIMONY OF JOHN B. PEGRAM, SENIOR COUNSEL, NEW YORK OFFICE, FISH & RICHARDSON, P.C.

Mr. PEGRAM. Mr. Chairman, Ranking Member Berman, and Committee Members, thank you for all of the attention you're giving to the improvement of the patent system. Thank you also for the opportunity to testify today.

I'm testifying as an individual who has studied this subject of adjudication of patent cases for many years. I support the study of this subject by the Subcommittee. The problems are widely recognized. There have been many proposed solutions. There's been little detailed study, to date. In particular, today I will be suggesting the designation of the U.S. Court of International Trade as an alternative or parallel jurisdiction patent trial court.

The serious problems in the patent trial court system today are revealed in several ways. First is correctness. A high percentage of appealed cases are reversed, so the courts are not getting it correct as frequently as they do in other areas of the law. Predictability is low, and so the result is more litigation and more extended litigation. Efficiency: Cases are often slow, and there is a huge cost.

Some of the causes are the limited patent experience of most judges. I would be happy if the witness to my right, with his biomedical degree, could clone Judge Ellis, and we could have him many times over. And that would certainly be one cure, but one that perhaps is not available yet.

The judges have limited time. I want to emphasize the lack of standardized procedures. The Federal Circuit now defers to the regional circuits on issues that they conclude are not specific to patent law; which means, therefore, that the damages are calculated in different ways, depending on which regional circuit is involved.

In my view, there is an excessive diversity of courts and judges. There is a lot of gaming of the system, the forum shopping that Professor Moore referred to.

Today there are over 600 regular, and almost 300 senior, district judges. These are generalists. They have, on average, too little exposure to patent litigation. The average judge gets four to five new patent cases a year. There are only a hundred patent trials per year—a fairly steady number for many years. So that means the average judge gets a patent trial every 7 years.

Judicial management is a big issue. The judges have limited time, because of their large dockets, and also because of the priority that is given to criminal cases. Also, it is difficult for a judge with limited patent experience to effectively manage the litigation. The litigants' costs are higher, due to lack of standardized procedures.

In the past, there's been an aversion in the United States to specialized courts. The Court of Appeals for the Federal Circuit was intentionally made not just a patent appeals court, for that reason. However, if we benchmark, we find that the foreign courts are going to patent specialization; that the U.S. courts very successfully in other areas, such as business and commercial courts, have been moving toward greater specialization.

And I would suggest a medical analogy: When you have cancer, do you want to go to the City of Hope Hospital, or just let your general practitioner take care of it?

The Court of Appeals for the Federal—excuse me. The Court of International Trade is a court within the Federal Circuit, already. That would permit development of procedural law and simplified procedures under the Federal Circuit's supervision.

There would be substantially no cost to adopting my proposal. There are existing under-utilized judges; there's an existing courthouse and offices. These judges have no criminal dockets which would delay their proceedings. As I mentioned, they have available time; although I would say that they're not sitting on their hands. They're being effectively used by designation in district courts, where they have experience. They have existing jury trial competence; both when they sit in their own court in certain types of cases, and also when they sit by designation in the district courts. And they have uniquely an existing authority to conduct trials anywhere in the United States.

There are many more details and legislative suggestions in my articles.

So if this proposal helps, hurray. If not, nothing would be lost. I look forward to the other witnesses' testimony and the question period. Thank you very much.

[The prepared statement of Mr. Pegram follows:]

PREPARED STATEMENT OF JOHN B. PEGRAM

Statement by
John B. Pegram
on
"Improving Federal Court Adjudication of Patent Cases"

Before the
Subcommittee on Courts, the Internet, and Intellectual Property
Committee on the Judiciary
United States House of Representatives

October 6, 2005

1. Introduction

Mr. Chairman and Members of the Subcommittee:

I am honored to have the opportunity to testify at this hearing in my individual capacity, as a concerned observer of the judicial and patent systems. My comments are my own, and not necessarily those of my firm or any other person, company or organization.

I have practiced law for nearly 40 years, primarily in the field of patent litigation. I am admitted to practice before many federal courts and the U.S. Patent & Trademark Office. I am now Senior Counsel with the New York office of Fish & Richardson P.C., one of the largest law firms primarily handling intellectual property matters. I have represented patent owners and defendants, individuals and companies, large and small.

I have long been active in intellectual property law organizations, and have written many articles and given many speeches on U.S. and international patent law and litigation topics. I am a Past President of the New York Intellectual Property Law Association and a past Director of the American Intellectual Property Law Association ("AIPLA"). Perhaps of particular relevance to this testimony are my past service as chair of AIPLA's patent litigation committee in the 1970s and again in the 1990s, and chair of the AIPLA's international patent committee. Starting over ten years ago, I have written and spoken at conferences about possible alternatives to the way we now handle patent cases at the trial level. Two of my published articles on this subject[1] are submitted with this statement, along with an article by U.S. District Judge James F. Holderman of the

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[1] John B. Pegram, *Should There Be a U.S. Trial Court With a Specialization in Patent Litigation?* 82 J.PAT. & TM OFF.SOC. 765 (Nov. 2000) [hereinafter "Pegram 2000"]; John B. Pegram, *Should the U.S. Court of International Trade Be Given Patent Jurisdiction Concurrent With That of the District Courts?* 32 HOUSTON L.REV. 67 (1995) [hereinafter "Pegram 1995"].

United States District Court for the Northern District of Illinois, which endorses my proposal.[2]

2. Summary

In summary, I support the idea of conducting a detailed study of how federal trial court adjudication of patent cases might be improved. The problems are widely recognized. The causes are not well understood. Although there have been many proposed "solutions," there has been little detailed study to date that might help Congress enact practical legislation in this area.

My statement today addresses some of the inefficiencies in the present system for federal court adjudication of patent cases at the trial court level, and discusses some of the standards that can be used in evaluating the present system and proposed improvements.

I have concluded that the most practical first step would be to give the United States Court of International Trade parallel jurisdiction with the U.S. District Courts in patent litigation, so that it could function as an alternative forum for development of improved patent litigation procedures under the supervision of the Court of Appeals for the Federal Circuit. I hope that this proposal, described in detail in the articles I have submitted, will be given serious consideration.

3. The Present System for Adjudicating Patent Cases

Our forefathers recognized that one of the primary functions of government is to provide a judicial system for adjudication of disputes. The system they established 200 years ago for adjudication of patent disputes at the initial, "trial" court level was appropriate for the tiny number of patent cases, and difficulties in transportation and communication at that time. A review is appropriate in the light of present circumstances.

In the present system for adjudicating patent cases in the United States, each of over 90 district courts has patent subject matter jurisdiction.[3] Almost all appeals involving issues of patent law are heard in the semi-specialized Court of Appeals for the Federal Circuit.[4] Because the latter court already is semi-specialized, we will discuss it first.

3.1 The Federal Circuit—A Specialized Court for Patent Appeals

The Court of Appeals for the Federal Circuit was established by the Federal Courts Improvements Act, which merged the existing Court of Customs and Patent

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[2] James F. Holderman, *Judicial Patent Specialization: A View from the Trial Bench*, 2002 J. L. TECH. & POL'Y 425 (2002) [hereinafter "Holderman"] (copy submitted with this testimony).

[3] 28 U.S.C. § 1338(a).

[4] 28 U.S.C. §§ 1292(c), 1295(a).

Appeals ("CCPA") with the appellate division of the Court of Claims, effective October 1, 1982.[5] Among the principal reasons for forming the Federal Circuit was to improve the uniformity of patent decisions and the stability of patent law, by establishing a single circuit court for all patent appeals. The Supreme Court had observed that there was a "notorious difference" between the standards of patentability applied by the Patent Office and the courts,[6] and there were significant divergences between the regional courts of appeals which led to rampant forum shopping.

The CCPA's principal jurisdiction had been over appeals from decisions of the Patent and Trademark Office ("Patent Office"), which related to applications for patents and trademark registrations, and decisions of the Court of International Trade (formerly the Customs Court), which related primarily to actions against the federal government under the Tariff Act. The CCPA also had jurisdiction over appeals from the United States International Trade Commission ("ITC"), including appeals from ITC decisions on complaints for unfair competition involving importation of goods infringing a U.S. patent or made by a process patented in the United States.

The Court of Claims' principal pre-merger jurisdiction was a variety of types of claims against the United States for compensation, including exclusive jurisdiction over claims seeking compensation for use or manufacture of a patented invention by or for the United States.

Generally, the assignment of substantially all patent appeals to the Federal Circuit has been viewed as a success. One significant shortfall has been that—because each district court is in a regional circuit and supervised by a regional court of appeals—uniform procedures have not developed in many areas of district court patent litigation practice. The Federal Circuit limited its procedural guidance to matters considered unique to patent litigation[7] and has avoided supervisory rulings.[8]

The availability of Federal Circuit review on appeal is not an adequate substitute for improved adjudication at the initial level, now the district courts. While Congress expected the Federal Circuit to have "adequate time for thorough discussion and deliberation,"[9] the late Judge Rich of that court described that idea as "quaint" more than

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[5] For discussions of specialization of the Court of Appeals for the Federal Circuit, *see generally* Rochelle Cooper Dreyfuss, *Specialized Adjudication*, 1990 B.Y.U. L. REV. 377; Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1 (1989) [hereinafter "Dreyfuss, *Federal Circuit*"].

[6] *Graham v. John Deere & Co.*, 383 U.S. 1 (1966).

[7] *See, e.g.*, *Ericsson Inc. v. InterDigital Communications Corp.*, 418 F.3d 1217, 1220-21 (Fed. Cir. 2005).

[8] *See generally* Dreyfuss, *Federal Circuit*, *supra* note 5, at 37-52.

[9] S.REP. NO. 275, 97th Cong., 2d Sess. 7 (1981), *reprinted in* 1982 U.S.C.C.A.N. 17.

ten years ago.[10] The Federal Circuit's busy docket permits only limited time for consideration of each appeal. Patent litigation is only a small part of the Federal Circuit's jurisdiction, accounting for less than 20% of the caseload, but requiring a somewhat larger percentage of the judges' time due to the relatively high level of complexity. When I looked into this subject several years ago, I found that in a typical month, each Federal Circuit judge received about 2000 pages of briefs and an average of more than one new appeal every business day. No doubt they receive much more now.

3.2 U.S. Patent Trial Courts—Today

At present, the trial courts for U.S. patent litigation are the 90+ United States District Courts. These are courts having broad federal jurisdiction.

In FY 2004, ending September 30, 2004, a total of 3,075 new patent cases were filed in the district courts, up 9.3% over FY 2003.[11] 2,744 patent cases were terminated by the district courts in FY 2004. 824 (30%) of the terminated cases ended without any court action. 1,453 (53%) were terminated by court action before the final pretrial conference. 369 (13.4%) were terminated by court action during the pretrial conference or thereafter, before trial. Only 98 (3.6%) cases were terminated by trial.[12]

Appeals from district courts in 478 cases, substantially all patent cases, were filed in the Federal Circuit in 2004.[13] A large number of these involved the construction (or interpretation) of the patent claims by the trial judge. A 2002 article by Associate Professor Kimberly Moore of George Mason University School of Law reported "that district court judges improperly construe patent claim terms in 33% of the cases appealed to the Federal Circuit."' That article concluded: "The 33% reversal rate of district court claim construction suggests that judges are not, at present, capable of resolving these issues with sufficient accuracy. This infuses the patent system with a high degree of uncertainty until the Federal Circuit rules on claim construction."[14] This rate of reversal is above the norm. As Judge Holderman has pointed out, "for comparison purposes, the national reversal rate of the District Courts of our country in the twelve regional United States Court of Appeals in all other types of cases, both criminal and civil, is less than

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[10] Giles S. Rich, *My Favorite Things*, 35 IDEA 1, 9-10 (1994).

[11] Administrative Office of the U.S. Courts, JUDICIAL BUSINESS OF THE UNITED STATES COURTS—2004 (hereinafter "AO 2004 REPORT"), Table C-2A at http://www.uscourts.gov/judbus2004/appendices/c2a.pdf

[12] *Id.*, Table C-4 at http://www.uscourts.gov/judbus2004/appendices/c4.pdf

[13] *Id.*, Table B-8 at http://www.uscourts.gov/judbus2004/appendices/b8.pdf

[14] Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 12 FED. CIR. B.J. 1, 32 (2002).

10%. This means on average in cases appealed to the regional U. S. Courts of Appeals, we, U.S. District Judges, get it right better than 90% of the time."[15]

There were 679 authorized judgeships in the district courts as of September 30, 2004, the end of FY 2004. The average number of pending cases of all types was 414 per judgeship.[16] The burden on the regular district judges is relieved to a degree by 291 senior district judges who work sufficiently regularly to be provided with a staff.[17] Cases in each district usually are assigned randomly, although case weighting is sometimes considered to avoid having a judge be assigned a disproportionate number of difficult or easily resolved types of cases.[18]

The district judges have too little exposure to patent litigation to develop the skills necessary for efficient conduct of such litigation. In FY 2004, the average judge receives 4-5 new patent cases each year, around 1% of the judge's caseload. Because the number of patent cases reaching trial each year has been relatively steady at around 100 for many years, on average each district judge has one patent trial every seven years.

Judge Holderman has explained:

> My duties as a U.S. District Judge require that I be a generalist. As one of the 665 active U.S. District Judges (in 2002), I must address each of the various cases randomly assigned to me in our district court, both civil and criminal cases. Only senior judges, who are 65 years of age or older and who voluntarily have given up their positions as active judges to take senior status, can turn away cases which are otherwise randomly assigned to them. I cannot, except in the rare instance of recusal.[19]
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> Typically, U.S. District Judges have little or no background experience in patent litigation to draw upon as they come to the bench. I know that when my credentials were being reviewed for my position as a U.S. District Judge, the President of the United States did not ask if I had patent infringement experience. Also, U.S. District Judges, in addition to their other caseload commitments and the pressed statutory time limits of the U.S. Criminal Speedy Trial Act19 and the U.S. Civil Justice Reform Act,20 typically feel burdened by the time commitment

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[15] Holderman, *supra* note 2, at 427.

[16] *Id.*, Table 3 at p. 16, http://www.uscourts.gov/judbus2004/front/JudicialBusiness.pdf; *see* Table X-1A at http://www.uscourts.gov/judbus2004/appendices/x1a.pdf

[17] *Id.* at p. 33.

[18] *See* AO 2004 REPORT, *supra* note 11, at pp. 22-24.

[19] Holderman, *supra* note 2, at 428.

> it takes to fully understand and carefully evaluate the subtle nuances of the technology and the law of patent litigation.[20]
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> [O]nly when a patent case comes our way do we brush-up on the latest developments in patent law. We do not as a matter of course receive the opinions issued by the United States Court of Appeals for the Federal Circuit in chambers as we U.S. District Judges do the opinions of our respective regional federal appellate courts.[21]

Patent cases are typically much more time-consuming for the judiciary than most other types of cases. For example, the median number of days for civil trials of all types is three days. 94% of all trials are completed in less than ten days in FY 2004.[22] However, five of the 26 cases requiring 20 or more trial days were patent cases.[23] Although I am not aware of any statistics relating to time devoted to pretrial proceedings of various types, I venture a guess—based on my experience and observations, that the judicial time consumed by patent pretrial proceedings is far more than in an average federal litigation.

Also, the non-uniformity of district court procedures in patent cases has increased the cost of litigation. The Civil Justice Reform Act of 1990 ("CJRA") required district courts to experiment with different procedures through development of a "civil justice expense and delay reduction plan."[24] "The purposes of each plan are to facilitate deliberate adjudication of civil cases on the merits, monitor discovery, improve litigation management, and ensure just, speedy, and inexpensive resolution of civil disputes."[25] While the CJRA lead to procedures which were found more effective in many districts, it also created many procedural differences between districts and new reasons for forum shopping.[26] As noted above, the Federal Circuit has limited its procedural guidance to matters considered unique to patent litigation.[27]

4. Past Suggestions

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[20] Holderman, *supra* note 2, at 429, citing 18 U.S.C. §§ 3161-3174 (2002) (Criminal Speedy Trial Act) and 28 U.S.C. §§ 471-482 (2002) (Civil Justice Reform Act).

[21] *Id.*.

[22] AO 2004 REPORT, *supra* note 11, Table T-2 at http://www.uscourts.gov/judbus2004/appendices/t2.pdf

[23] *Id.*, Table C-9 at http://www.uscourts.gov/judbus2004/appendices/c9.pdf

[24] 28 U.S.C. § 471-82.

[25] 28 U.S.C. § 471.

[26] *See, e.g.*, Edwin J. Wesely, *The Civil Justice Reform Act; The Rules Enabling Act; The Amended Federal Rules of Civil Procedure; CJRA Plans; Rule 83 What Trumps What?* 154 F.R.D. 563 (1994); Carl Tobias, *Finding the New Federal Civil Procedures*, 151 F.R.D. 177 (1994).

[27] *See* notes 7-8, *supra*.

Over the past 15 years, commentators and scholars have offered various suggestions for improving the trial court handling of patent cases. The 1992 Report of the Advisory Commission on Patent Law Reform suggested increasing the expertise of courts handling patent cases either by restricting patent jurisdiction to a single court in each of the 13 regional circuits, or by assignment of patent cases to designated judges in each district who would develop special expertise in patent litigation.[28] Developments since that time indicate a greater need for judicial expertise in patent litigation. For example, the average caseload of district judges has increased. Also, decisions of the Federal Circuit and Supreme Court in *Markman v. Westview Instruments, Inc.*[29] and later Federal Circuit decisions, such as *Vitronics Corp. v. Conceptronic Inc.*,[30] have increased the role of judges in patent claim interpretation, by directing that judges should interpret the language of patent claims.

Other proposals for improving the trial court handling of patent cases have included: (1) appointing expert judges or expert magistrate judges;[31] (2) designating a single judge in each district court to hear all patent cases;[32] (3) using more special masters to construe patent claims;[33] and (4) using "educated" juries and requiring technical qualifications of jurors in patent trials.[34] As Judge Holderman has written, "Each of these suggestions is a good idea, but why not have a specialized trial court to deal with patent cases that is not encumbered by the burdens and distractions we generalist U.S. District judges face?"[35]

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[28] *Id.* at 26, 97-99.

[29] 116 S.Ct. 1384 (1996), *aff'g* 52 F.3d 967 (Fed. Cir. 1995) (*en banc*).

[30] 90 F.3d 1576 (Fed. Cir. 1996).

[31] Edward V. DiLello, *Note, Fighting Fire With Firefighters: A Proposal for Expert Judges at the Trial Level*, 93 COLUM L. REV. 473, 490-91 (1993).

[32] ADVISORY COMM'N ON PATENT LAW REFORM, REPORT TO THE SECRETARY OF COMMERCE [hereinafter "ADV. COMM. REPORT"] (August 1992) at 75 (The Advisory Commission on Patent Law Reform was formed by the Secretary of Commerce in1990).

[33] Kenneth R. Adamo, *Get on Your Marks, Get Set, Go; Or "And Just How Are We Going to Effect Markman Construction In This Matter, Counsel?,"* in PATENT LITIGATION 2000, at 175, 205 (PLI Patents, Copyrights, Trademarks and Literary Property Practice Course, Handbook Series No. 619, 2000).

[34] See, e.g., Davin M. Stockwell, *A Jury of One's (Technically Competent) Peers?*, 21 WHITTIER L. REV. 645 (2000) (arguing in favor of technical qualifications for jurors in patent cases); Franklin Strier, *The Educated Jury: A Proposal for Complex Litigation*, 47 DEPAUL L. REV. 49 (1997) (proposing use of educated jurors in patent litigation because lay jurors are ill-equipped to deal with the complexity of the issues being tried).

[35] Holderman, *supra* note 2, at 430-31.

Elimination of jury trials in patent cases also has been suggested; however, there is a Constitutional right to jury trial on at least some patent issues, and—while the perception is that the use of juries in patent cases is frequent, is growing and increases cost—in fact, only about three percent of all U.S. patent cases are decided by a jury. Although, it appears the parties go to greater expense to dramatically present the evidence to juries than might have been done when the audience was a district judge, the elimination of juries would not significantly reduce the burden of patent litigation in 97% of the cases which do not proceed to jury trial. Also, the presence of a jury forces simplification and acceleration of trials once they begin, and is likely to reduce interruptions. A verdict is rendered promptly at the end of the trial. All of these factors can contribute to the reduction of cost. When all factors are considered, I believe that it is desirable for any alternative forum to be staffed by Article III judges and have the capability of trial by jury.

5. Specialized Courts[36]

There have been a number of published papers regarding specialized courts in the United States, including those by Professor Lawrence Baum,[37] a political scientist, Professor Rochelle Cooper Dreyfuss,[38] a legal scholar, and the present author.[39] In this section, we briefly address some of the issues regarding specialized courts that may be used in evaluating the current patent trial court system and proposals for one or more specialized patent courts.

5.1 Dimensions of Specialization

Specialization of courts is not new. Like specialization in the field of medicine, specialization makes sense in adjudication of cases when there is sufficient volume to justify it. In the state systems, for many years there have been specialized courts, such as family, surrogate and housing courts. The late Chief Justice Rehnquist praised the contributions of a specialized court, the Delaware Court of Chancery, to our national system of justice on the occasion of its 200th anniversary.[40] In the federal system, we have two Article I specialized courts, the U.S. Tax Court and the U.S. Court of Federal Claims, and one Article III specialized court, the U.S. Court of International Trade ("CIT"),

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[36] Portions of this part are abstracted from Pegram 1995, *supra* note 1, at 121-35, to which the reader is referred for a more detailed discussion and citations of sources.

[37] Lawrence Baum, *Specializing the Federal Courts: Neutral Reforms or Efforts to Shape Judicial Policy*, 74 JUDICATURE 217 (1991).

[38] *See supra* note 5.

[39] *See supra* note 1.

[40] William H. Rehnquist, *The Prominence of the Delaware Court of Chancery in the Federal-State Joint Venture of Providing Justice,* 48 BUS. LAW. 351 (1992).

formerly the Customs Court. We also have a *de facto* semi-specialized patent court in Delaware.

There is, however, a long history of resistance to specialization in the United States judicial system on grounds of *narrowness*, which is the extent to which particular kinds of cases dominate a court's work. The two principal criticisms of courts with narrow jurisdiction are isolation and the possibility that a court with narrow jurisdiction would be "captured" by a segment of its constituency. In creating the Federal Circuit, Congress avoided establishment of a Court with a single specialty by giving it appellate jurisdiction in several specialized fields and by requiring the assignment of judges to panels in rotation, rather than assignment based on fields of expertise. In the past 15 years, however, there has been a successful trend toward the establishment of specialist state business and commercial courts.[41]

Japan has recently established a single "IP High Court" as a single court of appeals in patent cases, and has concentrated trial level patent litigation in IP divisions of district courts in its two largest cities, Tokyo and Osaka.[42]

5.2 Neutral Virtues

The most common measures of success of a specialized court are what Professor Baum refers to as "neutral virtues."[43] They include greater expertise through assignment to judges who either come to the court with a specialist's understanding or develop such an understanding through service on the court, enhanced efficiency through reduced caseloads in the generalist courts and assigning the cases to a court which can dispose of them more quickly, and legal uniformity through concentration in a single court.

5.2.1 Expertise in Patent Law and Patent Litigation

Patent lawyers, academics and judges appear to agree that judicial expertise in patent law is particularly desirable. The statistics, however, show that U.S. federal district judges on average have insufficient exposure to patent litigation to develop expertise in patent law and patent litigation. The result is what one might expect. As Judge Avern Cohn of the Eastern District of Michigan has reported, "[D]istrict judges have to

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[41] *See* Pegram 2000, *supra* note 1, at 781.

[42] http://www.ip.courts.go.jp/eng/ . *See also*, Holderman *supra* note 2, at 428; Pegram 2000, *supra* note 1, at 773-80; Pegram 1995, *supra* note 1, at 102-12; Toshiko Takenaka, *Comparison of U.S and Japanese Court Systems for Patent Litigation: A Special Court or Special Divisions in a General Court?*, CASRIP Publication Series: Streamlining International Intellectual Property, at http://www.law.washington.edu/casrip/Symposium/Number5/pub5atc16.pdf (Autumn 1999); Jiang Zhipei, *The Presentation of the Supreme Court Justice Concerning Patent Protection in the International Judges Conference*, at http://www.chinaiprlaw.com/

[43] Baum, *supra* note 37.

constantly learn and re-learn patent law. They simply cannot keep current with developments in the law."[44]

Clearly, the Federal Circuit has developed patent expertise of a higher average level than that previously found in the regional circuits, as a result to deciding over 200 patent appeals per year. The fact that the Federal Circuit has a principal responsibility for the patent system, rather than for the odd case to decide, contributes to the development of that expertise.

5.2.2 Technical Expertise

The possibility of developing technical expertise in a United States federal court is a more difficult issue. Both attorneys and judges have suggested a need for such expertise. When patent appeals were still heard in the regional circuits, Judge Friendly of the Second Circuit author of many well-reasoned patent decisions complained:

> This patent appeal is another illustration of the absurdity of requiring the decision of such cases to be made by judges whose knowledge of the relevant technology derives primarily, or even solely, from explanations of counsel and who, unlike the judges of the Court of Customs and Patent Appeals, do not have access to a scientifically knowledgeable staff.[45]

Realistically, the lack of technical expertise among district and circuit judges is unlikely to change significantly. Unlike the United States Tax Court, in which all of the judges have some type of tax experience, it appears unlikely that a substantial number of technically trained judges would be appointed to the federal bench. Indeed, the Federal Courts Study Committee concluded its examination of how courts handle scientific and technological complexity in litigation by saying that "Because scientific and technological questions arise sporadically, we do not propose regular training for all, or even all new, federal judges; it might be untimely or wasted."[46]

The Federal Circuit apparently has not found a great need for technical expertise. According to Federal Circuit Judge Plager, "the patent law cases ... that we get ... tend not to be primarily problems of technology. They tend to be primarily problems of law. .... [T]he technological side of patent law at the appellate level is less significant than the

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[44] Avern Cohn, *Tenth Annual Judicial Conference of the Court of Appeals for the Federal Circuit*, 146 F.R.D. 205, 372 (1993).

[45] *General Tire & Rubber Co. v. Jefferson Chem. Co.*, 497 F.2d 1283, 1284 (2d Cir. 1974) (note omitted).

[46] FEDERAL COURTS STUDY COMMITTEE REPORT 97 (1990). (The Federal Courts Study Committee was appointed by the Chief Justice pursuant to the Federal Courts Study Act of 1988, Pub. L. No. 100-702, 102 Stat. 4642, 4644).

fundamental legal questions we have to deal with."[47] The Federal Circuit, however, benefits from the assistance of law clerks with science or engineering degrees, and a central staff of technical advisors.

5.2.3 Efficiency

Efficient handling of patent litigation can be evaluated in terms of efficient operation of the judicial system and of the patent system. The efficiency objectives of the two systems are not always consistent. This paper addresses efficiency primarily from the point of view of participants in individual patent cases.

Concentration of all patent appeals in the Federal Circuit clearly benefited the efficiency of the judicial system by removing the burden of patent litigation from the regional courts of appeals. The statistics show that the Federal Circuit is promptly deciding the average appeal in less than a year from filing. The court is a busy place, with each judge on average receiving a new appeal every day, participating in a decision every day and participating in a patent decision at least once a week. Indeed, Professor Dreyfuss notes, the Federal Circuit may have been "too successful" in the sense that its clarification of patent law and its greater recognition of the statutory presumption of validity may have lead to an increase in judicial resolution of patent disputes.[48] While such a success does not greatly relieve the burdens of the judicial system, it is likely to benefit the patent system and the American economy.

5.2.4 Uniformity of Decisions

Uniformity of patent decisions is desirable because it leads to predictability. A principal benefit of predictability is that it reduces the need for litigation, making it more likely that a question will be avoided or resolved directly by the parties. Professor Dreyfuss expressed the patent system's need for uniformity in decision making as follows:

> Patent law is ... unique in that its primary if not exclusive objective is to motivate future behavior. This goal is frustrated if the producers and customers of patentable information ... cannot predict with some degree of confidence what the law will be across the nation.[49]

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[47] Jay S. Plager, *Tenth Annual Judicial Conference of the Court of Appeals for the Federal Circuit*, 146 F.R.D. 205, 244 (1993).

[48] Dreyfuss, *Federal Circuit*, *supra* note 5, at 24.

[49] *Id.* at 67-68. *See* Henry J. Friendly, *Adverting the Flood by Lessening the Flow*, 59 Cornell L. Rev. 634, 639 (1974) (arguing that specialization would be more valuable to [consumers of patent law] than to criminals, who do not plan their activity with an eye fixed on the Bill of Rights, criminal law or rules of evidence).

One of the principal reasons for assigning all patent appeals to a single appellate court, the Federal Circuit, was to achieve greater predictability through uniformity of decisions and doctrinal stability. Clearly, it has had some success in that respect. Professor Dreyfuss found that, on the whole the empirical data indicates that the Federal Circuit had made patent law more *precise*, in a way permitting the Patent Office, courts and practitioners to apply it with greater ease; and that the court had achieved greater *accuracy*, meaning correctness.

5.2.5 Access

Accessibility of courts also is an important consideration. It has both geographic and temporal aspects. Improved communication systems can reduce the need for frequent visits to the courthouse. Indeed, I frequently holds conference with a local judge and communicate with him by telephone and facsimile, although the courthouse is only a few miles from my office. Perhaps a more important aspect of accessibility is the availability of judges to knowledgeably manage litigation and resolve discovery disputes.

Access has not been a significant obstacle for patent disputants before the Federal Circuit. In large part, however, that is because usually it is only necessary to visit an appellate court once, for oral argument.

6. My CIT Proposal

I suggest granting the United States Court of International Trade ("CIT") concurrent jurisdiction with the district courts in patent cases. That court, has nine authorized judges and an existing courthouse-headquarters. The CIT judges are of the same rank as district judges, being appointed under Article III of the Constitution.

Access to the CIT would not be a significant problem. The CIT is unique in that it already has nationwide jurisdiction and the ability to hold trials at any place in the United States. The CIT can and does hold jury trials where required by law. It has no criminal docket to delay its proceedings and, perhaps most significantly, the CIT judges appear to have available time.[50]

Although the current CIT judges do not now have patent experience, they would develop it through concentration of a substantial number of cases in that court. Significantly, the CIT is in the Federal Circuit and subject to direct supervision by its Court of Appeals. That fact, and the existence of its own rules (similar to the Federal Rules of Civil Procedure) and broad rule-making authority, would permit the development of procedural law for patent litigation and simplified procedures for patent

[50] 767 new cases were filed in the CIT in FY 2004, about 85 cases for each of the nine authorized judgeships. AO 2004 REPORT, *supra* note 11, at pp. 34-35; CIT website at http://www.cit.uscourts.gov/informational/about.htm#COMPOSITION (number of judges).

cases. That should not only reduce the burdens of litigation in the CIT, but also provide an example for the district courts, which would retain parallel jurisdiction.

In accordance with my proposal, the CIT could adjudicate not only those infringement and declaratory judgment cases that a party chooses to file there, but also would be available for transfer of cases from overburdened and inconvenient forums.

7. Conclusion

In conclusion, I thank the Subcommittee for its consideration of possible improvements in federal court adjudication of patent cases and consideration of my CIT proposal.

I also thank the subcommittee for its work on substantive patent law improvements and elimination of patent fee diversion, which—in tandem with adjudication improvements—should move us toward a better patent system for the 21st Century.

Attachment:

John B. Pegram, *Should There Be a U.S. Trial Court With a Specialization in Patent Litigation?* 82 J.PAT. & TM OFF.SOC. 765 (Nov. 2000).

See also:

James F. Holderman, *Judicial Patent Specialization: A View from the Trial Bench*, 2002 J. L. TECH. & POL'Y 425 (2002).

John B. Pegram, *Should the U.S. Court of International Trade Be Given Patent Jurisdiction Concurrent With That of the District Courts?* 32 HOUSTON L.REV. 67 (1995).

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[Additional material submitted by Mr. Pegram is located in the Appendix.]

Mr. SMITH. Thank you, Mr. Pegram.

Mr. Katopis.

TESTIMONY OF CHRIS J. KATOPIS, COUNSEL, DRINKER, BIDDLE & REATH, LLP

Mr. KATOPIS. Thank you very much, Chairman Smith, Ranking Member Berman, Members of the Subcommittee, for the privilege of testifying today. My name is Chris Katopis. I'm a patent attorney with the law firm of Drinker Biddle; although the views I'm espousing are my own, and should not be ascribed to any of our clients.

I am testifying today not as a litigator, but as someone who has had a decade of experience in Government, with the House and the PTO, working on patent and judiciary issues.

I'm sorry to tell Mr. Pegram that my Republican brethren generally frown on cloning, even in the case of esteemed judges. So I hope to focus your attention on some other alternatives that may prove useful.

Certainly, this Subcommittee "gets it," for continually, again and again, acknowledging the importance of the patent system for institutions like universities, investors, entrepreneurs, small business. You are to be commended for that. You are also to be commended for elevating patent issues to an unprecedented level, with a record number of hearings this year. I just wanted to acknowledge that.

But patent litigation is notoriously known as "bet the company litigation." The stakes are high; the verdicts are often huge, multimillion-dollar. And the fierce nature of our system, which is winner-take-all, I think, amplifies the sound of the crisis.

But unfortunately, I don't think the frustration, the statistics, the anecdotes that we're hearing, justify suggesting that the system is flawed. And I also think it's premature to suggest structural alternatives to the Federal judiciary and expanding some of the processes that will be discussed today, like expanding interlocutory appeals.

In focusing your attention on issues to look at, I think you must start with the USPTO. As the Subcommittee heard at last month's oversight hearing, the USPTO is engaged in a number of productivity initiatives. And if you have confidence in the PTO management, you will believe that they will be successful and this will lead to a dramatic increase in the number of patents issued over the next 5 years, as well as patents with increased complexity.

And you can quibble. You know, we saw the graph last month, and there was some quibbling over how much the rate of increase would occur. But it is certain that the number of patents that will be entering the marketplace will increase, along with their complexity. And this will guarantee that the number of patents in litigation, as well as the percentage that goes to trial, will dramatically increase over the next 5 years.

So this hearing is very timely for Congress to sort of assess and ask whether the system can adequately handle the enhanced caseload and the complexity of these cases. I call this the bulge in the snake moving.

One of the issues which we're going to talk about today is the Federal Circuit and the high reversal rate regarding interlocutory appeals. Even though there's a big number attached to the statistic, for me, it doesn't have meaning without more unraveling of the layers of the onion.

It could be one of three things. It could be that the Federal Circuit is not putting enough deference to the lower court—the "run amok" argument. The lower courts may be lacking some capabilities. Or it may be that these cases are the tough cases; they're too close to call and, in a winner-take-all system, the appeals are necessary, you know, to justify your inventive rights.

So I think there's some mix of issues at stake. And certainly, if you favor certainty, then it's worth looking at ways of giving increased deference to the district court. And I outline a suggestion in my testimony.

Further, I think we can still enhance the—even though we increase the certainty, increase the accuracy of the district courts. In my written statement, I justify a number of ways of adding capabilities to the district courts, in terms of education, resources, tools, expanding the use of special masters.

It struck me in the course of researching and preparing for this hearing that—I talked to a special master, where the judge found him by doing a Google search. There is not a good resource for judges to find neutral court-appointed experts. I think this is lacking.

So I think Congress needs to take a deep breath, and assess where we are with the system, what's coming down the pike; do an in-depth study; conduct pilots; increase the capabilities of the district court; and open a dialogue between the courts and Congress.

Today's hearing is a great start, and I think that the sooner the better. There are initiatives that you can begin before Congress adjourns, sine die, the sooner the better. America's entrepreneurs, inventors, and small businesses deserve nothing less.

So thank you, and I'm happy to entertain any questions.

[The prepared statement of Mr. Katopis follows:]

PREPARED STATEMENT OF CHRIS J. KATOPIS

STATEMENT OF

CHRIS J. KATOPIS

BEFORE THE

SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY
COMMITTEE ON THE JUDICIARY
UNITED STATES HOUSE OF REPRESENTATIVES

"IMPROVING FEDERAL COURT ADJUDICATION OF PATENT CASES"

OCTOBER 6TH, 2005

I. INTRODUCTION

Mr. Chairman, Ranking Member Berman, and members of the Subcommittee, thank you for the opportunity to testify on the important subject of "Improving Federal Court Adjudication of Patent Cases."

I am a counsel and a registered patent attorney in the Washington, D.C. office of the law firm of Drinker Biddle & Reath LLP. In my work, I perform a range of duties including prosecuting patent applications and consulting Wall Street investors, life-sciences and electronics companies about trends in technology and the law. It is my privilege to testify today, not as a patent litigator, but rather based on my experiences in government and teaching law. During my tenure in government, I worked on patent and judiciary issues for more than decade, first for the U.S. House of Representatives and then at the U.S. Patent and Trademark Office ("USPTO"). In these capacities, I am proud to have worked on a number of oversight and legislative issues that helped improve the federal judiciary and the patent system, including the American Inventors Protection Act (AIPA), expanded patent reexamination, and USPTO Fee Modernization. Today, I

am testifying in my personal capacity. The views I offer are my own and do not necessarily reflect any of the organizations that I represent.

The Subcommittee deserves to be commended on several counts. First, this panel continues to demonstrate an enormous commitment to enhancing the U.S.'s innovation policy and improving the landscape for American inventors. Innovation is at the core of our prosperity as a Nation and our economic vitality. Innovation is also at the core of our identity as a Nation – we are people that enjoy and are proud to solve problems -- sometimes changing the world. Second, the Subcommittee has elevated the subject of patent law to a new level through holding an unprecedented number of responsible and thoughtful hearings this year. Third, this is the courts subcommittee with jurisdiction over the third branch of government. While these issues are often arcane and may be frustrating, these are worthy of your time and effort. Certainly the subject of patent litigation has been at the forefront of the public's attention for several years now. It strikes me that the public debate on issues such as "patent quality" or the scope of patentable subject matter are proxies for the public's frustration concerning the adjudication of patent disputes.[1]

Patent litigation is notoriously known as *"bet the company"* litigation. The stakes are enormously high, beyond multi-million dollar verdicts. During my tenure working for the Subcommittee, it was impressed upon me that patents are not only for inventors, but are an important tool for investors. Venture capital is the life blood for start-up companies, but investors must secure their investment with valid intellectual property assets and a sound legal framework defining the underlying rights. The refrain

that patent litigation costs upwards of a million dollars per year per side is known to all of us. This is particularly onerous for small entities to compete in the marketplace, ranging from small businesses to non-profits, including universities.

Increasingly, business publications such as *The Wall Street Journal* focus on the patent struggles of mature companies and write about their stock price gyrations like reporting a sports play-off series. If mature Fortune 500 companies are subject to this volatility, patent litigation is even more significant for a start-up seeking initial or subsequent venture capital financing. A start-up may only have a single, or a handful, of intellectual property assets as a basis for investor funding. Uncertainty concerning patent litigation can place a cloud over its financing and deter investment in new technologies. Wall Street likes certainty, but the truth is we all like certainty in our lives, especially if our company or job is at stake.

As you are aware, a number of reforms are suggested to improve patent litigation, including the establishment of a special patent trial court, creating blue-ribbon expert juries, expanding the use of special masters, eliminating some of the subjective aspects of patent litigation, and establishing new administrative reviews.

A growing chorus of critics and commentators suggests that the current system of federal patent adjudication is flawed. They cite a variety of reasons and statistics pointing to a number of symptoms -- including problems with the caseload, expense, lengthiness, complexity, inaccuracy, and uncertainty for parties. If their allegations are true, these problems would impact our Nation's ability to innovate, compete internationally, and prosper.

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[1] Over the past decade, the concern and frustration over a variety of U.S. patents have spawned some novel responses including the offer of hefty cash bounties for relevant prior art and the Electronic Frontier

Congress must first determine if these allegations are true and whether the proponents of change have met their burden. The sound of the crisis may merely be the fall-out from the fierce competition over determining patent rights. One factor that fuels this fierce competition is the blunt winner-take-all nature of litigation. By contrast, one of the notable advantages of some of the alternatives under discussion is the ability to amend and narrow the claims of patents. These changes are more likely to alter the dynamics of the legal competition by encouraging settlements and licensing. Recently, the Subcommittee examined an initial factor at the heart of these issues – the work product of the USPTO.

II. THE BULGE IN THE SNAKE

Congress frequently hears testimony that the U.S. litigation system is flawed. Today there is a heightened level of frustration articulated by many in the patent world that the system of patent adjudication is flawed, including by the members of a variety of technology sectors and the public. Before Congress dives into these waters, it must understand these trends – in particular the inevitable growth in patent disputes. My observations and predictions about the volume and complexity of newly issued patents are based on my recent work at the USPTO as its strives to improve productivity and its processes. If there is a storm, the USPTO is in its eye.

The U.S. is frequently criticized as becoming increasingly litigious. One statistic noted by critics of the current adjudication system is the volume of patent litigation currently within the federal system. After reviewing the available data, the volume of patent litigation must be viewed in its proper context; there does not seem to be a federal

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Foundation's "Patent Busting Project," just to name a few.

district patent caseload crisis today. The trend that should concern all of us is the rapidly accelerating growth of patent cases in the federal courts and their complexity.

Critics argue that there are too many patent cases in the courts. In fact, the number of patent cases seems to track the number of valid U.S. patents in force and is a small percentage of that total number. The number of valid U.S. patents in force is approximately 2 million currently and, for example, 2,800 patent cases were filed in 2003. This is a tiny percentage of less than one percent of all valid patents. While this is not troubling on its face, we need to be mindful of two factors: the upward trend of the volume of filed cases and their complexity.

In the past dozen or so years, available data suggests the number of patent cases filed in the district courts has grown substantially, nearly doubling from 1,553 in 1993 (when the USPTO received about 170,000 new patent applications) to more than 2,800 in 2003 (when the USPTO received 331,000 new applications).[2] A tiny percentage of these cases go to trial. In my view, this should not be taken as evidence that we are growing more litigious as a nation. Rather it reflects a natural amount of "friction" surrounding inventive and competitive activity. By reviewing the USPTO's workload statistics, one can see that the growth of filed patent cases tracks the growth in the number of valid U.S. patents granted and in effect is part of our country's inventive activity. The number of these cases is certain to explode as the USPTO becomes more productive and works to reduce its current backlog of approximately 500,000 patent applications. The number of patents granted each year by the USPTO has been approximately 170,000 for about the last five years; while we can disagree about how much it shall increase year to year, this number is certain to climb.

This embarrassment of riches of increasing patent workload will compound any concerns over patent adjudication, as evidenced by the USPTO's own projections. The two trends to watch are the increased number of granted patents and their increased complexity. As the Subcommittee heard last month at the USPTO oversight hearing, it is projected that new patent applications will climb from approximately the 375,000 filed in 2004 to more than 470,000 new filings in 2010.[3]

As the Subcommittee heard in testimony at the USPTO oversight hearing last month, as part of the USPTO's 21st Century Strategic Plan, there are a number of productivity initiatives currently underway, as well as an awareness of the technical complexity of these pending applications. The USPTO Under Secretary and Director testified:

> *The growing importance of IP in recent years has had a direct impact on the USPTO. Patent applications have more than doubled since 1992. . . . Further, over the past twenty years, the number of complex applications as a percentage of overall patent workload has increased from 21% in 1985 to 52% in 2005.* [4]

Ironically, the success of the USPTO's productivity, made possible by the work of Congress and the resources that it provides, will only amplify the sound of any crisis.

One cannot predict the exact number of patents that will be in force at a point in the future or the heights of complexity that will be granted in the years to come because the success of the USPTO's new initiatives cannot be known at this time (e.g., hiring thousands more examiners, improving retention, limiting continuations, and limiting the number of claims). While I am biased due to my service at the USPTO, there is widespread confidence that the USPTO management will be successful in improving the

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[2] *See* attached table I.
[3] *See* attached table II.

agency's productivity. It is clear this will impact the debate over the current litigation climate.

As the "bulge in snake moves," as they say at the USPTO, referring to the disposition of more of its backlog of pending applications, a different set of challenges is presented for the patent system. Parties may disagree about the magnitude of the change. All other factors being equal, the certain increases in patent application filings, issued patents, and their complexity guarantee increases in the number of patent cases filed in the federal courts each year and the percentage that will go to trial. My prediction is that the increases will be considerable, and the volume of new patent cases in the federal courts will double, to more than 5,000 new patent cases per year the next five years, without Congressional intervention.

III. THE CLAIM CONSTRUCTION CONUNDRUM

The uniqueness of patent law arises from several factors: the technical substance of patent law, the technical scientific and engineering issues present, and the unique structure of a national courts of appeals, the Court of Appeals for the Federal Circuit (the Federal Circuit). One of the leading arguments for the case that patent adjudication is flawed today surrounds patent claim construction.

Today, the chorus of criticism seems to be directed at the issues surrounding patent claim construction by the courts. Essentially, the alleged flaw of our system is not the overall structure of the current system, but perhaps lies in the interplay between the trial and appellate systems. This arose approximately a decade ago when the U.S.

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[4] Statement of the Honorable Jon W. Dudas, *USPTO Oversight Hearing Before the Subcomm. On Courts, the Internet, and Intellectual Property of the House Comm. on the Judiciary* 109th Cong., 1st Sess. (2005).

Supreme Court found that patent claim construction was a question of law subject to *de novo* review. This question was settled by the Court's decision in *Markman v. Westview Instruments, Inc.*[5] and the Federal Circuit's decision in *Cybor Corp. v. Fas Technologies Inc.*[6] Certainly the intentions were noble. In *Cybor*, Federal Circuit Judge Jay Plager noted, "Our purpose is to improve the process of patent infringement litigation for the benefit of patentees and their competitors, and ultimately the public. Whether this approach to patent litigation will in the long run prove beneficial remains to be seen."[7]

The results of this change, the *de novo* review of the questions of claim construction, have been mixed. First, it has essentially taken the claim construction issue away from juries. Now that patent claim construction is a question of law, the meaning of claims are decided by judges. Consequently, there is nearly universal agreement that this change has been a positive development in patent law.[8] Many commentators and litigators are very troubled by the allegations that the Federal Circuit is treating the work of the district judges as "rough drafts."[9]

> *Frankly, I don't know why I'm so excited about trying to bring this thing [patent suit] to closure. It goes to the Federal Circuit afterwards. You know, it's hard to deal with things that are ultimately resolved by the people wearing propeller hats. But we'll have to see what happens when we give it to them. I could say that with impunity because they've reversed everything I've ever done, so I expect fully that'll reverse this, too.*[10]

An essential element of a sound federal innovation policy must be that there are effective remedies for the abrogation of one's rights, namely property rights. Inventors

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[5] 517 U.S. 370 (1996) (holding there was no Seventh Amendment right to a jury trial on the issue of patent claim construction).
[6] 138 F.3d 1448 (Fed. Cir. 1998).
[7] *Id.* at 1463. (Plager, C.J., concurring).
[8] While every judge may say publicly that they love juries deciding these cases, the truth is the opposite.
[9] The present system the Federal Circuit's de novo "review of district court claim construction leaves little doubt that the present system of adjudication is flawed." Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?,* 15 HARV. J. LAW & TEC 1, 37 (2001)).

will suffer if the federal adjudication system cannot provide adequate resolution. Professor Moore frames the question perfectly, "Can the patent system flourish if the scope of the patentee's property right is wrongly assessed one-third of the time?"[11]

Critics and commentators argue that the legacy of these cases is a flawed system. They claim that the reversal rate of the district court by the Federal Circuit is 40% or higher. They argue that appeals are increasing and whereas it used to be an appeal over one or two words, we now see multiple appeals -- over numerous words in a claim such as "a", "or", "and". However, it is countered that the number of appeals by the Federal Circuit has been constant at approximately 450 per year for the last twenty years – the same volume as before and after the *Markman* and *Cybor* cases. The lack of comprehensive and granular statistics makes it difficult to say which camp is correct.[12]

The statistics and anecdotes are the premise for the assertion that an all-too high reversal rate means that the system is flawed. This leads to three possibilities, or some mix of all three: (1) the Federal Circuit fails to give sufficient deference to the district court in these cases, (2) there are a large number of cases that are simply difficult close calls and could go either way, and (3) there is a lack of accuracy and technical expertise in the district courts.

In response, there are two principal reforms advanced to fix the alleged flaws of our system: (1) enhancing the accuracy and technical expertise of the district courts through the establishment of a specialized patent trial court and (2) permitting interlocutory appeals to the Federal Circuit for questions of patent claim construction.

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[10] *Id.* at 11 (*quoting* Judge Samuel B. Kent).
[11] *Moore* at 2.
[12] Professor Moore, who may have compiled and reported the most comprehensive empirical data available, acknowledges its limitations. *Id.* at 9.

Congress must require the advocates of any change in the law to prove its necessity. It is unclear whether a problem with the appellate review of district court claim construction really exists and, if it does exists for what reasons. An understanding of the underlying reasons can focus efforts toward a solution. Second, both of the proposed court reforms present their own sets of risks, problems and challenges that need to be clearly understood.

A. It is Premature to Restructure the District Court System

In examining the issues surrounding patent litigation, Congress must understand the trends, identify specific goals, such as improving accuracy and certainty in patent litigation, and then choose the best mechanism to accomplish its goals. The goals will dictate the nature of the reform or the structure of any institutions intended to mitigate current problems. A growing chorus of commentators argues that the federal courts are not providing an efficient method for resolving patent disputes. If this were true it would be especially troubling since all of the available evidence suggests that the number and complexity of patent disputes will climb dramatically in a few short years.

As Congress reviews the problems surrounding patent litigation, there is a very tempting suggestion -- a structural change to today's federal judicial machinery by creating a specialized patent trial court. In fact, one of the other panelists will discuss this proposal in more detail. We know that patent law requires a specialized understanding of the law and of technology, so it seems natural that a specialized court of patent trials might be beneficial.[13] Any recommendation to modify the structure of the

[13] Senator Patrick J. Leahy, an opponent of specialty courts even for complex litigation such as concerning environment and tax laws, supported the establishment of the Federal Circuit. He said, "I believe that patent law stands apart from virtually every other legal discipline both in its extreme focus on science and

federal courts must include a sound and persuasive analysis that is based on discrete and concrete criteria. At this time the argument for Congress structurally altering the federal district courts seems premature.

There are several reasons to oppose the creation of a special patent trial court. The first is the "parade of horribles" argument: it will inevitably set a precedent that could lead to balkanization of the federal judiciary. The creation of any new court will likely be followed by calls for separate trial courts for other specialty, and arguably worthy, areas of the law (e.g., environmental law). The academic literature is full of a variety of reasons against specialty courts on the ground of narrowness, capture, and isolation. Also, the U.S. jurisprudential tradition favors generalist judges and the strong sentiment that generalist judges improve the legal system through the cross-pollinization of ideas.[14]

Additionally, as the Subcommittee is certainly aware, there are always political considerations to confront. Patent litigation is a healthy business and gives rise to local constituencies. An effort to consolidate patent trials to one venue would be opposed by many bar associations and local constituencies.

One danger arising from a separate patent trial court is the possibility that it will decrease uniformity in the law and lead to balkanization. For example, a "patent case" referred to the patent court may have a variety of related federal and state law claims including patent infringement, validity, copyright infringement, trade secrets, and antitrust. One could foresee situations where these non-patent issues are dragged into

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technology and its need for uniformity in decision-making." S. REP. NO. 275, 97th Cong., 1st Sess. (1981), *reprinted in* 1982 U.S.C.C.A.N. 11, 39.

[14] Chris J. Katopis, *The Federal Circuit's Forgotten Lessons?: Annealing New Forms of Intellectual Property Through Consolidated Appellate Jurisdiction*, 32 J. MARSHALL L. REV. 581, (1999).

the specialized patent trial court and over time a new variety of case law dictates these subjects. Another danger would arise if patent issues were to be "plucked" from cases in the district courts and referred to the specialized patent court. This would lead to a host of procedural and substantive problems. If the issue is truly about patent expertise, then the proposals for shifting much of this work to the USPTO for further reconsideration makes more sense as it offer the benefit of expertise while avoiding the discussed problems.

While the "uniqueness" of patent law may have won over skeptics of specialty courts during the period when Congress established the Federal Circuit, a national court of appeals, the arguments seem less persuasive for the creation of a patent specialty court. While many commentators have called for the creation of a specialized court of patent trials, or a national patent trial court, my own view is that it will have little benefit, will be futile, and will ultimately cause more harm than good. By contrast, U.S. innovation policy was bolstered by the establishment of a national court of patent appeals. Our system is healthy primarily due to the general federal district courts funneling up to a national appellate court.

B. The Court of Appeals for the Federal Circuit

The Federal Circuit is an example of how Congress overcame important challenges involving the poor state of the patent system and its resulting impact on the U.S. economy, industrial base, and inventive activity. The country was confronted with the economic malaise of the 1970s and a legal climate of uncertainty around patents that made it economically foolish to invest in innovation. The issue was studied in a

bipartisan fashion. Congress itself innovated by establishing a new federal court of appeals. After more than twenty years, the overwhelmingly amount of evidence proves it has been a success.

The Federal Circuit is credited with many important improvements including increasing uniformity, doctrinal stability, enhancing predictability within the bodies of law in its jurisdiction, the reduction of inter-circuit conflicts, reducing waste and costs.[15] While the Federal Circuit is credited with enhancing the U.S.'s innovative climate, a "renaissance" in patent law, today, unfortunately, makes the Federal Circuit an easy target for critics of the patent system. The urban myth is the Federal Circuit is said to be too "pro-patent," as if it rubber-stamps patents it reviews. In my view, the criticism that the Federal Circuit is "pro-patent" is entirely unjustified. For example, in many areas it has scaled back the scope of patent rights by limiting the doctrine of equivalents and revising the law of inequitable conduct.

The Federal Circuit has advanced an important goal by promoting a uniform national patent law and enhancing certainty over the span of two decades. Our system works well with a generalist trial system that funnels up to a national subject matter court of appeals. Today, the proposals for improving the federal adjudication of patent disputes focus on the interaction between the Federal Circuit and the federal district courts.

C. Interlocutory Appeals

In response to the argument that the Federal Circuit's reversal rates in claim construction cases are too high, some commentators have suggested permitting interlocutory appeals of claim construction issues to the Federal Circuit. My own view

is that permitting interlocutory appeal for all claim construction issues is ill-advised, for several reasons, including:

- *It will overburden the Federal Circuit's workload.* Appeals will be frequently used in a growing number of cases since the cost of an appeal is relatively small compared to the initial district court litigation.[16]
- *Flawed Judicial Procedure.* It seems flawed to permit the appeal of an issue when the record is not fully developed, to look at a proceeding in a piecemeal way, and to issue what is essentially an advisory opinion.
- *It Exists Already and Doesn't Seem to Help.* This method of sending a question for review exits *de facto* today and there is no evidence that it is improving the adjudication of patent disputes. Litigators now employ the tactic of moving for summary judgment on an issue (e.g., literal infringement), and then appeal to the Federal Circuit.

Further consideration of this issue requires understanding what underlies the reversal rates before efforts of correcting this alleged flaw are begun.

The balance between accuracy and certainty can best be achieved by limiting, but not eliminating, the *de novo* review standard of claim construction issues. This would accomplish several important goals – increasing confidence in the judicial system through greater affirmance rates, managing caseload by encouraging cases to settle earlier and discouraging appeals, and promoting thoughtful claim construction by the district judges – all of which will hopefully decrease the public's frustration.[17] It would also bring about greater certainty for inventors, investors, and entrepreneurs. Uncertainty in the patent system hurts U.S. innovation policy; it also increases the risks surrounding investment of time and not only financial resources into inventive activity such as

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[15] *Id.* at 599-600.
[16] Professor Moore hypothesizes a 42.5% increase in the number of patent cases appealed if interlocutory appeals are established. *Moore* at 37.
[17] *Moore* at 28.

research and development, our manufacturing base, and job creation. Any increase in certainty in the adjudication promises benefits for the U.S. patent system.

The key problem is whether the district court will be properly construing claims and getting their meaning correct. A balanced solution entails improving certainty in appeals and improving district court accuracy; this requires increasing appellate deference to the trial court, even by a modicum amount. One suggestion is for Congress to enact legislation to tighten the standard of review by the Federal Circuit in claim construction cases to a "*de novo* review based on an issue of fact." Hopefully, this would make adjudication more certain by promoting more deference to the lower courts. As Judge Newman noted in *Cybor*, "By continuing the fiction that there are no facts to be found in claim interpretation, we confound rather than ease the litigation process."[18] While increasing certainty would be advantageous, so would enhancing the technical expertise and accuracy in the district courts.

Greater Deference to the Trial Courts. Any tightening of current *de novo* standard would certainly be an incremental reform, but would be real progress. It poses some advantages over the proposal for permitting interlocutory appeals for all cases, by giving some modicum of deference to the trial court. In truth, the Federal Circuit employs various standards of review for different areas of law, so a new level of review is not wholly foreign. I concede that it raises some constitutional questions. If claim construction is a pure question of law, akin to interpreting a statute, it may be difficult for Congress to limit appellate review by statute.

[18] "By continuing the fiction that there are no facts to be found in claim interpretation, we confound rather than ease the litigation process." *Cybor* at 1480. (Newman, C.J., concurring).

The proposal is worth reviewing since it would squarely address the issue at heart of much of today's frustration. The merit of this proposal is that it would place a greater emphasis on adjudication at the district court. In one of his articles, Mr. Pegram noted, "many district judges 'want no part of patent law.'"[19] This may have several bases, but there is growing evidence that federal district judges feel as if their work is treated like a rough draft and they are wasting their time. Alternatively, perhaps one of the underlying reasons that the Federal Circuit's reversal rate is so high is the district court lacks certain capabilities.

IV. ENHANCING THE DISTRICT COURT'S CAPABILITIES IN PATENT CASES

As Congress reviews whether the statistical evidence truly demonstrates that the federal system for the adjudication of patent disputes is flawed, it can simultaneously devote its attention and effort to enhance the overall system by focusing on the needs of the district courts. There are several ways in which Congress can increase the level of accuracy and technical expertise in the district courts.[20]

Providing Technical Resources. The district courts deserve additional technical resources for patent cases. The range of technology issues that they will confront will exceed the knowledge of any one judge or even a dozen judges (e.g, biotechnology, nanotechnology, electrical engineering, software, etc). Judges need access to a range of

[19] John B. Pegram, *Article: Should the U.S Court of International Trade Be Given Patent Jurisdiction Concurrent with That of the District Courts?*, 32 HOUS. L. REV. 67, 75 (1995).
[20] "It does bother me quite a bit when judges show clearly in decisions that they don't understand technology." *Id.* at 129 n. 449.

resources and tools. Today there are several non-profit and educational organizations that provide such resources for federal judges, for example, the Biojudiciary Project.[21]

The technical expertise of the federal district courts will benefit from the addition of in-house resources and training. Judges employ several law clerks, generally for one or two year terms. The Federal Circuit has model resources that are worthy of emulation by the district courts. First, the judges all employ at least one clerk with some engineering or science background. Second, the Federal Circuit also has a centralized office with permanent staff attorneys. The law clerks and central staff have a range of scientific and engineering backgrounds and thus can consult one another if a technical issue arises beyond their own sphere.

As Congress considers authorizing new pilot projects and judicial resources, it should consider funding a small number of new units of career staff attorneys with technical backgrounds in centralized offices for the various federal district courts. The courts should seek attorneys with technical backgrounds in a variety of fields. Congress should also provide incentives for these attorneys to stay in their positions with the government for a number of years. As you know, one of the concerns recently expressed by the GAO is the difficulty of the USPTO in retaining its career engineers and scientists who serve as patent examiners.

Incentives for Trial Judges. It is said that the carrot is mightier than the stick. There is anecdotal evidence that the majority of judges just do not like patent cases. One can hypothesize several reasons for this apprehension, perhaps patent cases are too time

[21] "The Biojudiciary Project is a 501c(3) non-profit organization with an educational mission to provide judges, lawyers, scientists, reporters, and the general public with knowledge tools necessary to address pressing questions emerging from the intersection of biotechnology and the law." *See* http:\\www.biojudiciary.org.

consuming or technically complex. Some judges are gleeful that they can go decades without ever receiving a patent case. My research into the creation of the Federal Circuit leads me to believe that was only possible because most appellate judges at that time did not want to see patent appeals.[22] It is unworkable to force judges to hear patent cases. One solution may be to increase the weight a patent case gets in the assignment. Another solution may be to reward a district judge who handles a patent case by permitting the judge to have an extra law clerk or some other resource as an incentive.

Special Masters. The technical contribution of court-appointed experts, such as special masters, who make recommendations to a district judges can improve the accuracy of the district courts' opinions. The use of special masters has many benefits, including bringing unique technical expertise to a rare area of technology and substantially shortening the time necessary for claim interpretation.[23] A valuable statistic in this debate is the percentage of the alleged 40% reversal rate that is attributable to the claim construction when either a special master or a federal magistrate was used by the district court.

The Federal Judicial Center of the United States (FJC) and the Administrative Office of the U.S. Courts (AOC) should develop and provide better tools for the district court judges in patent cases. Today there are some resources and training for judges who handle patent cases, but these should be enhanced with an emphasis on the process and rules regarding claim construction.[24] Judges must also have superior tools to locate special masters and training to properly use these court appointed experts. Currently,

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[22] This may be one factor why copyright law was not included in their exclusive jurisdiction.
[23] See Lee A. Hollaar, Ph.D., *The Use of Neutral Experts*, ANALYSIS & PERSPECTIVE 660, 663 (Vol. 4, No. 24) (2004).
[24] H. Schwartz, PATENT LAW AND PRACTICE (FJC 1995).

there exists no centralized database or repository of names of available special masters by technology specialty in existence for use by the courts. While interviewing individuals for this hearing, I heard a telling story. A former special master in a patent case explained the way that a judge had located him. The judge's law clerk performed an Internet search using Google. Surely, the judiciary deserves better and more dedicated resources for this task.

Although there may be hot debate and inconclusive facts about the need for the creation of a specialized patent trial court, there are a variety of resources and tools that can enhance the expertise needed in patent district court trials. In addition, Congress and the Judiciary should continue the dialogue about any alleged flaws and needed solutions.

V. CONCLUSION: IT AIN'T BROKE

In summary, the U.S.'s system of adjudicating patent disputes is very healthy, as evidenced by the enormous and increasing amount of inventive and investment activity seen every day. Yet a growing chorus of complaints, mixed statistical reports, and anecdotal evidence suggest that the system is flawed. While it is premature for Congress to consider radical structural alternatives for the federal judiciary's review of patent cases, there needs to be a healthy public debate on these topics, including the proposal to establish a specialized patent trial court. Unless the critics of the current system satisfactorily make their case, more study is required before action is advisable. Congress should consider working with the FJC and AOC to take the following steps:

- *Generating a comprehensive statistical survey to provide a greater understanding of the patent cases moving from the USPTO, to the federal district courts, and the Federal Circuit. This study should include information about the caseload, complexity, and trends regarding the patent cases in the courts, their disposition,*

including more information about the reversal rates on appeals (i.e., the granular information of whether the district court relied on either a magistrate or special master).

- *Providing more resources and technical expertise to the federal district courts; and,*

- *Commissioning a joint-panel of district and appellate judges to recommend a series of incremental court reforms on a pilot basis. This hearing is an important start for the dialogue between Congress and the courts. Judges must have input in the debate and any proposed solutions. The U.S.'s intellectual property system is the envy of the world. Any changes to our system can have global financial and research ramifications.*

These simple steps can all be initiated before Congress adjourns for the year. The sooner that you act, the sooner that there will be benefits for all involved. Your work in this area promises to pay dividends for generations to come for all – America's inventors, entrepreneurs, and the public who deserve no less.

Again, thank you for the privilege of testifying and I am happy to answer any questions.

Table I
Number of Patent Cases Filed in the U.S. Courts
***(Source: Gauri Prakash-Canels, Ph.D., Trends in Patent Cases, 41 IDEA 285*)**

Year	Number of Cases Filed
1991	1,178
1992	*
1993	1,553
1994	1,617
1995	1,723
1996	1,840
1997	2,112
1998	2,218
1999	2,318
2000	2,484
2001	*
2002	*
2003	2,814

Table II – USPTO Workload Projections
New Utility, Plant, and Reissue Patent Application Filings
(Source: USPTO Annual reports and workload projections.)

1984	109,010
1993	173,619
1994	185,087
2000	291,653
2003	331,729
2004	351,431
2005	371,100
2006	389,200
2007	409,200
2008	429,600
2009	451,100
2010	473,700

Mr. SMITH. Thank you, Mr. Katopis.
Judge Ellis.

TESTIMONY OF THE HONORABLE T.S. ELLIS, III, UNITED STATES DISTRICT JUDGE, EASTERN DISTRICT OF VIRGINIA

Judge ELLIS. Thank you, Chairman Smith, Ranking Member Berman, and the other Members. I'm delighted to be here today, and I appreciate very much the opportunity to express my views on these various proposals.

I'm here today, of course, speaking only for myself. But my views, of course, are informed by my life experiences, which I think are, in the circumstances, worth elaborating on very briefly. I've spent about 35 years, or 36 years, in the law. I've spent about 18 years as a partner in a large law firm, where I litigated the widest variety of cases: business cases of all kinds, everything from nuclear licensing to motorcycle accidents, medical malpractice. Almost anything you can think of, I've tried, and lost, and won a few.

Then, as noted, I was appointed to the bench in 1987. And I might note, since the Chairman noted it, that I was appointed by Ronald Reagan, so I should point out that this is as close as any Federal judge should get to law-making.

Now, having said that, I should also point out that I appreciate the kind words by Mr. Pegram, but I'm sure that there are many litigants who have appeared before me—and my wife—who would have strong, cautionary words to say about trying to clone me. [Laughter.]

In any event, going on, over the time that I've served as a district judge, again, I've tried the widest variety of cases. The Eastern District of Virginia has a very rich docket; everything from espionage cases, which I'm involved in almost all the time, to patent infringement cases, to product liability cases, environmental toxic tort cases, nude bathing in the Potomac—I can't imagine being able to tell you how broad the range of litigation is.

And I do suggest to you that the notion that patent infringement cases are the most complex or the most difficult or the most time-consuming is not true. Sure, they're time consuming, they're labor intensive. And sure, they are complex. And I'll get to the range of those cases that I've tried. But to conclude that they're the only complex cases is a mistake.

And they're also not the only "bet the company case." I can assure you of that, as well. Most cases these days—when I first began practicing law, a $30,000 case was a big case. Soon after that, everything became "third world war," practically.

In any event, based on that experience, it is my view that the current system is working. It is working to produce fair and generally correct results that are consistent with fairness and with the overall goals of the patent laws; which of course, as we know from the Constitution, is to promote the progress of the useful arts.

But I agree with the Chairman that it is far too costly. I think the discovery process for all cases is a black hole into which we throw enormous resources and it gives off very little light in return.

How do we deal with that? Judges need to deal with that. In the Eastern District of Virginia, we deal with it by having every case

go to trial within about six or 8 months, regardless of nature or dimension; with only the rarest of exceptions. That includes patent cases. This is a fairly rigorous time schedule. It imposes severe discipline on judges and litigants. But it is appropriate. It does keep costs down.

Now, there are other ways to keep costs down. We need to explore those. Although I have a strong caution about Congress getting into the job of micro-managing the adjudicatory process. I think that's a mistake. But I do think it is important for judges to be more conscious of the enormous costs of litigation. And the fact is, I think one of the articles I submitted is an article I wrote on how litigation costs distort patent economics. I believe that's available.

But in any event, let me address what I think is the major impetus for the proposals. And that is the Markman decision and the reversal rate related to Markman. There's no question that Markman, of course, was a landmark, a watershed event in patent infringement litigation. I tried lots of cases before which were non-Markman, before Markman came along, and many since then; and I know the difference.

And it is—it does make it more labor intensive. The principal result is that judges must engage the technology. They must engage it, and they must write opinions about their Markman decisions. And judges are now becoming aware of that.

My view is that the first year there was about a 40-percent reversal rate, according to the figures I had from the Federal Circuit. And my view of that is that it took a while for district judges to get the message. And it's still a message that is being propagated by the Federal judicial center and many of us. That is, to engage the technology, write opinions, and demonstrate that you have thought about it carefully.

Then the reversal rate went way down, into the 20's, by 1998. Then it crept up again. And it is now, as Professor Moore pointed out, I think about 35 percent. But that figure is flawed. It's not flawed because of Professor Moore. She's an exceptional researcher and an exceptional academic, and I bow to her.

But she is limited by the way in which the data exists. She can't, for example, tell you how many cases were not appealed, where the people were satisfied with the Markman determinations and accepted them. She cannot tell you how many cases where the Court of Appeals of the Federal Circuit reversed a Markman determination, but affirmed five or six others.

I had a case in which I had 24 patents involved in electronics, transistor circuitry; patents in which I made dozens of Markman determinations. Now, that case never went to appeal. I think the parties might—they settled ultimately. I can tell an interesting story of how that went, because we used independent experts, which was not a good idea. And I can come back to that.

But the fact of the matter is that there are many cases where numerous patent Markman determinations are made that are affirmed, in effect, by the Federal Circuit, and those aren't accounted for in the 35 percent.

But the bottom line is this. The normal reversal rate for cases is roughly 20 percent. But that includes both clearly erroneous or

factual determinations, and de novo determinations, matters of law, about which there is a higher percentage rate. No one knows what that figure is exactly, so far as I'm aware; but it's estimated to be about 24, 25, to 26 percent.

Markman is up at 34, at the last I heard. I believe that will decline. I think it is stable now. I do not believe it's rising. I believe it is stable and it will continue to decline.

Why was there a blip going up? I think because the Federal Circuit was in the process of getting organized about its rules of construction. We all know about the dictionary disputes, and how that went back and forth for some period of time and caused some confusion. But that will stabilize, and that will come down.

So I do not believe that there is any need for any specialty courts or specialty trial judges. And then, think of the problems that that would create.

Mr. SMITH. Judge Ellis, I hate to say that you're out of time; I hate to do that to any judge. But maybe there'll be some time during the question-and-answer period.

Judge ELLIS. This is your court, sir. [Laughter.]

Mr. SMITH. Okay.

[The summary of the prepared statement of Judge Ellis follows:]

SUMMARY OF THE PREPARED STATEMENT OF THE HONORABLE T.S. ELLIS, III

Summary of Statement of
The Honorable T. S. Ellis, III
on
"Improving Federal Court Adjudication of Patent Cases"

Before the
Subcommittee on Courts, the Internet, and Intellectual Property
Committee on the Judiciary
United States House of Representatives

October 6, 2005

Judge Ellis is honored to have the opportunity to testify at this hearing as a member of the judiciary. Before becoming a member of the judiciary he practiced law, and litigated patent cases, for over 17 years. He has now served as a United States District Judge for approximately 18 years. His comments are his own, and are based upon his experience as a lawyer and as a judge.

Judge Ellis takes issue with the statistics that are in literature about the reversal rates of patent cases. He also takes issue with the statistics in literature on reversal rates of claim construction after Markman. It is necessary to count accurately before the statistics can serve as the basis for a conclusion. Not only do most available statistics fail to take into account the cases that are not appealed, but within each case that may be appealed, not all claims in issue are reversed; many are affirmed. There can be numerous claims within one case. One example is a case in which Judge Ellis construed various claims of 24 different transistor circuitry patents. The number of claim terms in issue in this case numbered in the tens. It would be surprising to find a judge, even on the CAFC, who could get every single claim right.

Judges are still learning to accept the discipline required by Markman. Judges must engage the patent technology involved and apply the CAFC rules of claim construction. It is not that district court judges cannot do this. They can. When individuals accept an appointment on the bench as district court judges, it is their obligation to do their jobs, and this will include learning the discipline of claim construction in patent cases.

In addition, the true view from the bench, which includes the CAFC, is that Markman is working and that district court judges are making progress in engaging the various technologies. The view from the bench is that there is not a serious problem with Markman hearings, rulings or their reversal rates — not a problem warranting fundamental restructuring of patent infringement litigation.

With regard to forum shopping, Judge Ellis believes the existing venue and jurisdiction statutes work well and provide litigants with ample opportunity to file their cases in courts with patent litigation expertise.

Judge Ellis does not think a specialized patent trial court will be of any benefit. Though patent cases are complex, so are toxic tort cases, environmental law matters, product liabilities, medical malpractice and many other types of cases litigated in federal court. If a special trial court is created for patents, the same rationale would call for specialized trial courts for other types of cases. It is difficult to draw a principled line that cordons off only patent cases.

"Complexity" should not be the reason for creating a specialized trial court. In addition, although judges, like patent examiners, are not "persons having ordinary skill in the art," it would be impossible to find judges who would have the right technical or scientific background that would make them the perfect "person having ordinary skill in the art" for each patent case that might be filed. Application of the "person having ordinary skill in the art" standard is not any more difficult for federal district court judges than for a patent examiner when determining whether to grant a patent.

In addition, the CAFC is a good model. Not all CAFC judges have science or technical backgrounds. Nor are there CAFC procedures to ensure that cases are assigned to judges with a technical background that matches the patent in suit. The CAFC has rejected this approach.

In Judge Ellis' opinion, there are a number of far more pressing patent system reforms with far sounder bases that call on Congress' attention.

In sum, the final question that must be answered with respect to any system of adjudication is whether the final result is fair and consistent with the applicable law. On this standard, America's general federal trial and appellate judges do very well indeed and no fundamental reform creating a new bureaucracy or a new set of Article I or Article III judges is either needed or prudent.

[Additional material submitted by Judge Ellis is located in the Appendix.]

Mr. SMITH. Professor Moore, let me direct my first question to you. But at the outset, let me say that, at least from my perspective, it seems to me that we do have a legitimate problem, both in the increase in the number of patent cases, their complexity, and perhaps or at least in the amount of reversals that we see; all of which have been documented by you.

Judge Ellis called you a respected professor and researcher whom he admires, but he said your data was flawed. And I wanted to know if you wanted to respond to that.

Ms. MOORE. Thank you, Chairman Smith. Well, the data is not flawed, and I'm happy to make it freely available to anyone who is interested in reviewing it. I do actually, contrary to Judge Ellis' suggestion—the data includes every single claim term that was appealed. So if he had a case where 24 were appealed, and 23 were affirmed, those are all counted as 23 separate affirmances in my data and one reversal.

Despite that, there's a 35-percent reversal rate. The 35 percent reversal rate is the cumulative rate over the 8 years of the study from Markman to last year. The 35-percent reversal rate is for all 8 years. If you do look at the graph, there is a continuing rise over the time period. So the most recent year is higher than 35 percent. It's the mean of all the years.

Mr. SMITH. Okay. Professor Moore, what do you think of Mr. Pegram's idea; that is, giving the Court of International Trade patent jurisdiction?

Ms. MOORE. Well, I am not—I don't support the idea. If we were to give them concurrent jurisdiction with the district courts, it just creates another avenue for forum shopping by plaintiffs.

Beyond that, if we give them exclusive jurisdiction—I'll tell you, once I actually wrote an article advocating the consideration of a specialized trial court. I'd like to retract it here formally. You know, I'll chalk it up to youth.

But in any event, the reason that I oppose the idea now is simply because, with the creation of the Federal Circuit, I believe we have enough of a specialized court situation, and we would lose all the percolation that comes from having many district courts be able to weigh in on the law and then have the Federal Circuit look at all of those different interpretations and come up with the right one.

Mr. SMITH. I understand. Mr. Pegram, in regard to your idea, you clearly, by saying that the Court of International Trade should have patent jurisdiction, are willing to designate a particular court and give that jurisdiction to a court other than the courts that now have it. So what's wrong with Professor Moore's idea about designating a judge within each district and having that judge become an expert in patent law?

Mr. PEGRAM. Ninety patent courts is too many. And I think that there is a big difference between having a collegial court that are all under the same rules of procedure, which I think we should try as an experiment with the CIT, and having 90 different judges that the only thing that is assured is that each one's in a different district and that they're under all the different regional courts of appeal.

Mr. SMITH. All right. Thank you. Mr. Katopis, I'm going to read from your testimony, page 10. You say that, "all of the available evidence suggests that the number and complexity of patent disputes will climb dramatically in a few short years." And then you say further on that one of the underlying reasons that the Federal Circuit reversal rate is so high is that the district court lacks certain capabilities.

Isn't this the whole point of what Professor Moore is saying? And yet, your response is to suggest another study and another commission. If the problem is as severe as you describe it—and I believe that it is—why not have a specialty judge, so to speak?

Mr. KATOPIS. I think that there may be merits in that, specialty judges. However, I think Congress really needs to take a deep breath, and assess what's going on. I would be interested in knowing, in terms of the reversal rate, what's really going on? Are these all electrical engineering cases, for example? Is there some problem with the electrical engineering patents that are coming out of the PTO? Is that something that we need to look at?

So I think it's important to—I would like to know, are special masters or magistrates being used in these cases? I'd like to understand why that number is so large, before Congress takes action, especially radical action.

Mr. SMITH. Do you have a quick response, Professor Moore, to that?

Ms. MOORE. Well, my quick response would be that, with regard to the 35 percent number, that 35 percent number has nothing to do with the PTO issuing good or bad patents, because it's claim construction. Whether it's a good or a bad patent, somebody's got to construe the claims. And that's, unfortunately, not getting done correctly 35 percent of the time.

Mr. SMITH. Okay. Mr. Katopis, you don't think that there might be at least just a little bit of institutional resistance here to a change in the status quo or the loss of jurisdiction on the part of some members of the judiciary? Which is totally understandable and totally natural. Members of Congress don't want to give up any jurisdiction. Those of us on the Judiciary Committee don't want to lose any of it to any other Committee, and so forth. But it strikes me that that might be a partial explanation for the resistance to something that might be needed in our society today.

Mr. KATOPIS. Well, Mr. Chairman, maybe I'm just really conservative and leery of change. So perhaps that——

Mr. SMITH. Well, usually conservatives—at least, I don't think it's a Republican idea to suggest more studies and commissions, but maybe it is. I guess it depends on which side of the desk you're on.

And Judge Ellis, you wanted to respond, real quickly. And my time is up after your response.

Judge ELLIS. Well, I agree that we don't know the precise reasons for the high reversal rate, but I think I have a clue. And if you'll give me some time, I'll tell you.

Mr. SMITH. Okay. Without objection, I'll yield myself another 2 minutes.

Judge ELLIS. All right.

Mr. SMITH. And please proceed.

Judge ELLIS. If I reflect on the kinds of Markman determinations that I've been required to make, we're talking about the vagaries of language. And it's no respecter of technical area. You will find dicey Markman determinations in swimming pool toys, as I had recently, or in transistor circuitry, or in air disc brakes, or indeed anywhere.

Because it is the goal of every person seeking a patent to get the broadest possible patent they can. And how do you do that? You use broad, vague claim language. And once you have that broad claim language, you can argue in a patent infringement case that it covers something you maybe hadn't anticipated, but you can still argue it. And then, a district judge has to decide whether it's that broad or not. And then, the court of appeals has to decide.

I suppose everyone here knows, of course, that the Court of Appeals for the Federal Circuit has 12 judges, only six of whom have technical backgrounds. And what do you do? Do you then have—there is a chemical PhD on the Federal Circuit, but there are no procedures in the Federal Circuit to ensure that Judge Newman hears all chemical patents. In fact, they have explicitly rejected such a procedure.

Generalist people can do this, and can understand it. The ablest judges—or the ablest lawyers who have appeared before me in patent infringement cases have often had AB degrees in English.

But the reason for the high reversal rate, I think, is the expansive, broad language, and the changing definitions, and district judges need to engage.

Mr. SMITH. And not a lack of expertise; or so you would argue.

Judge ELLIS. Not a lack of expertise.

Mr. SMITH. Okay.

Judge ELLIS. I think if you had an expert set of courts, you'd have disagreements again. And if you put appeals there, you'd have disagreements among experts up there.

Mr. SMITH. Professor Moore, any response?

Ms. MOORE. Well, the only response I would have to Judge Ellis' comment is that you have to consider the position he's coming from. He is, without question, one of the most esteemed of all the patent jurists in the country. He—I don't know, but probably—has a lower reversal rate than other judges. I could look at my study and figure that out.

So maybe what is easier for some judges, given the experience he has with the high number of patent cases, may not be quite so easy for other judges who have very, very few patent cases.

Mr. SMITH. I thank you all for your responses.

The gentleman from California, Mr. Berman, is recognized for his questions.

Mr. BERMAN. Thank you very much, Mr. Chairman.

If a group of schlubs like us can decide whether or not the patent law should be amended—I mean, I am a believer in a generalist being able to sort of learn enough—just enough to be dangerous. In other words, I mean, I wonder if you lose something by having somebody who is so tied up and so involved by background and training and everything else in patent law. Sometimes, the benefit of a fresh look at something is useful in these situations.

The issue of reversal rates, there are people around who like to say, "Oh, the Ninth Circuit is reversed more than any other circuit." And I say, "Well, let's see, what does that measure? The number of times the court granted cert and then reversed the Ninth Circuit? Or was it the number of decisions the Ninth Circuit made? Or the number of decisions where someone sought cert and it was not granted? Is that factored into it?"

I mean, you can create a lot of different conclusions based on where you decide to draw the line in determining the reversal rate.

But I guess you indicate, Professor, you don't want a specialized patent court. You want what, judges, one or more judges, in each of the districts to handle all the patent cases in that district? Is that your suggestion?

Ms. MOORE. I think that would be a better proposal, yes, Mr. Berman.

Mr. BERMAN. Done based on volunteering for it? Or the chief judge having the authority to say, "You're the new guy here, you're stuck with this"?

VOICE. That's how they do it now.

Mr. BERMAN. "Here's your reward." No, that isn't how they do it now. Now they have a random method of selecting judges; notwithstanding the Judiciary Committee's investigation into how judges get cases. It's a random determination, by and large, isn't it, in almost every district?

Judge ELLIS. Well, it is in the Eastern District of Virginia, but it wasn't until relatively recently. But relatively recently, for reasons we all understand now, it has now become random everywhere.

Mr. BERMAN. The chief judge used to decide who would get the case?

Judge ELLIS. Yes. But the chief judge didn't do it. It was often—I can remember times in the '80's when someone would come in and say, "You know, I'm not really up to trying this case. I haven't been feeling well. Who here wants to try it?" There were lots of different ways in which it happened, and that was wrong. They all ought to be randomly assigned, without regard.

Now, I don't know how you would appoint somebody, or designate somebody. If you designated, for example, somebody with an electrical engineering background, and somebody came to that person with a life sciences case, what good is that electrical engineering background going to do?

Mr. BERMAN. And are patent cases the only kind of really complicated cases?

Judge ELLIS. Absolutely not. I can attest that there are many other kinds of complicated cases that are—I'm not saying patent cases are not time consuming. They're very labor intensive for judges. I cannot tell you how many hours I poured over transistor circuitry diagrams, struggling to understand it.

But I have also had espionage cases that have been terribly difficult and time consuming; securities fraud cases; toxic tort environmental cases that involve very complicated questions of statistical methodology.

Mr. BERMAN. How did you get Federal jurisdiction over a nude bathing case?

Judge ELLIS. The Potomac.

Mr. BERMAN. What, they bathe across State lines?

Judge ELLIS. State park—national park.

Mr. BERMAN. I see. Okay. So it wasn't the original package doctrine.

Judge ELLIS. No.

Mr. BERMAN. Okay. [Laughter.]

Judge ELLIS. It was really a very uninteresting case. [Laughter.]

Mr. BERMAN. All right. The issue of claims construction, Professor, you divorced it from the issue of the quality of the patent. And I don't quite understand why it would be divorced. If the Patent Office is granting a patent to a broad and vague claim, isn't that, by definition, a critique of the quality of that patent?

And how a claim is construed, if it's construed in one way, it very well could be a poor quality patent, because there was prior art that wasn't novel, or it was obvious. Construed that way, it was a poor-quality patent; construed another way, it might—Why aren't they totally interrelated, the issue of quality of patents and how claims are construed?

Ms. MOORE. I guess, Mr. Berman, I don't see that as contributing to the complexity, making it more difficult for the district court judge to accurately figure out which way it should be construed. If it's construed so broadly as it reads on the prior art, as you correctly pointed out, the patent is going to be invalid, and his job is actually quite easy. If it's construed narrowly, then maybe you won't have infringement.

But I guess that I don't see the quality of the job the Patent Office does as really having any very big impact on the likelihood a district court's claim construction is going to be right or wrong, or get reversed or be affirmed.

Mr. ISSA. [Presiding.] One more minute, by unanimous consent.

Mr. BERMAN. Okay. Thank you.

Judge ELLIS. May I respectfully dissent? I do think that the way in which the patent claim is written can affect the validity of it. And the vagueness of it can affect the validity of it. And it's often a battle in construing a claim to construe a claim to preserve its validity; is one of the cardinal rules. And as I said earlier——

Mr. BERMAN. You mean like construing a statute to preserve its constitutionality?

Judge ELLIS. That's right. So while I agree in essence with Professor Moore that basically the validity of the patent isn't inextricably intertwined with it, it can be related to it. And if you take a looking, I think it would be worth studying a range of the kinds of Markman determinations.

You know, if you get a patent that says in a method, "heated to 500 degrees approximately," or "more or less," and then a district judge has to decide, well, is 490 degrees "more or less"; is 491 degrees "more or less"? Experts are going to disagree about that. I had experts testifying in this transistor circuitry case, and even they couldn't agree on the definition of a term.

Mr. BERMAN. Could I just—this is really going to be sort of a "yes" or "no" answer, if I could.

Mr. ISSA. Without objection, an additional half-minute.

Mr. BERMAN. Assuming that claim construction is essential to properly determining both issues of infringement and validity, and many cases would be settled earlier with reasonable claim constructions, would you recommend, would any of you recommend, establishing a procedure that would make interlocutory review of claim construction to the Federal Circuit available to litigants? I guess, under the theory that if you send that judge decision up for appeal on an interlocutory basis, and that's resolved, you might in many cases get a settlement and do away with a lengthy jury trial and all of the other stuff that goes with it.

Ms. MOORE. Yes, I would favor that. But there are some concerns you need to be wary of; which is the volume of cases that would put in the laps of the Federal Circuit judges. And you know, while you would remove a lot of the inefficiency from the district court, you may over-burden the court with very complicated cases.

Mr. PEGRAM. For that reason, I'm not ready to adopt that proposal. But I'm willing to see what comes up in further discussion of this subject.

Mr. KATOPIS. Well, I'm not a litigator, so I'm going to embarrass myself, probably. But I'll say the earlier in the process you have——

Mr. BERMAN. You worked here. You can't be more embarrassed than that.

Mr. KATOPIS. Well, talk to Mr. Merrit. [Laughter.]

The earlier in the process you have the appeal, the more half-baked the record is. So you probably won't have enough really to give a meaningful appeal. So I think there's a little bit of a "Catch-22." But the judge can speak to that more fully.

Judge ELLIS. I have not thoroughly thought that out, but I would be preliminarily opposed to it; the reason being that the record wouldn't be sufficiently developed. But more than that, I have on many occasions—I always hold Markman hearings as early as possible—early as possible. It's one of the first things I do, to get a sense of that. And I make rulings as early as I can.

Oftentimes, I'm not able to make rulings, because I'm not confident that I fully understand the case. So I tell the lawyers, "Make alternative assumptions, and put those alternative assumptions to your infringement experts to see whether there is infringement."

I have even had occasion in the course of a trial to change my mind about a Markman determination and change my definition in front of the jury because a bright light went on in a dark recess of my mind that hadn't gone on when it should have much earlier. So I'm not sure interlocutory appeal is the fix that it might appear to be.

Mr. ISSA. Thank you. And the Chair recognizes the gentleman from Virginia, Mr. Goodlatte, for his round of questioning.

Mr. GOODLATTE. Well, thank you, Mr. Chairman. I appreciate your yielding me this time. I was very interested in the last question asked by the gentleman from California, Mr. Berman, and I'd like to follow up on it.

It seems like the majority of you are skeptical about the idea of an interlocutory appeal. I'm still concerned about the estimate that you've given us, Professor Moore, that perhaps as many as a third

of district court claim constructions are improper. Others have said that it could be as high as 47 percent.

And so I'll ask you. But since you were somewhat supportive of the idea of interlocutory appeal, I also want to hear the three dissenters' ideas of how we get away from that problem if we don't use the interlocutory appeal.

Are there other things that we can do before it gets to the district court? Are there things we can do to improve the quality of the district court decisions? Or do you disagree that the quality is that low? Because being wrong a third of the time is awfully high for any district court. They wouldn't want to be reversed a third of the time on appeals in most other areas of the law. So we'll start with you, and work our way back.

Ms. MOORE. Thank you. Certainly, Congressman, I agree with you that the reversal rate is cause for concern. As far as interlocutory appeal goes, I am extremely receptive to the idea. I would very much like to see the Federal Circuit taking cases under interlocutory appeal. They've had many such appeals. They've rejected all of them; which is their matter of right. So maybe there would be a way that we could encourage them to take some. And that would probably be a very good thing.

Mr. GOODLATTE. We could do that. Let me ask you to respond to Mr. Katopis' observation that if you allow the appeal earlier in the process the record on which the appeal is based is skimpier.

Ms. MOORE. That's not a concern in claim construction, sir. In claim construction, you're supposed to construe the claims in light of the intrinsic record. It's like construing a statute in light of the legislative history. Once it's there, it's there.

Really, district court judges are discouraged from looking outside of the patent documents itself to determine what the claim terms mean. So there really isn't the need to develop this extremely extensive record for part of claim construction.

Mr. GOODLATTE. Thank you. Mr. Pegram?

Mr. PEGRAM. In the practical world, however, I agree with the views expressed by Judge Ellis, that sometimes the light does dawn later, either in the minds of counsel or in the minds [sic] of the judge. We are talking about something——

Mr. GOODLATTE. But obviously, if the rate of determination of improper constructions is between 33 percent and 47 percent, a lot of the time, the light never goes on. What do we do to get the light to go on?

Mr. PEGRAM. Well, if you'll bear with me, sir, I agree with Judge Ellis that the problem isn't quite as bad as the statistics look, because there are so many cases in which the claim construction is never appealed: the parties have settled; there is an adjudication by summary judgment. Only 3.6 percent of the cases go to trial. So there are many, many cases in which the district court has reached a Markman decision of some sort, that may go unrecorded and unreported, that I think may not appear in the statistics.

I, personally, don't feel that the driving reason for making an improvement in the adjudication system is this issue of reversals on the Markman hearing. And I would tend to agree that we should encourage, as Judge Ellis said, a preliminary determination.

But this is a matter of law. And as a matter of law, it's subject right up to the end of the trial to be changed, and to be changed in the Federal Circuit. And that's just the way it is in our system, if it's going to be a matter of law.

So there are going to be changes to occur. And I don't think that the numbers are so outrageous, when you look at it in the context of over 3,000 patent cases a year.

Mr. GOODLATTE. How many of those are appealed?

Ms. MOORE. Four hundred and fifty a year.

Mr. GOODLATTE. Out of 3,000 are appealed. And so we're seeing somewhere between 150 and over 200 of those constructions determined to be improper. Judge Ellis?

Judge ELLIS. Well, the reversals could be for other reasons, not having to do with Markman. So you can't attribute the full 30——

Ms. MOORE. No, the 35 percent are solely claim construction reversals.

Judge ELLIS. All right. Well, my view is that the interlocutory appeal is not a good idea, especially in our docket. Everything is over in 8 months.

Mr. GOODLATTE. Okay. I heard that. What I'd like to know, with due respect to all of you, what do you do instead to reduce that number?

Mr. KATOPIS. Congressman, if I may, I still don't understand what underlies that number. Is it, as I suggested, the Federal Circuit running amok; a deficiency in the district courts; these are just tough cases, they imply issues of patent quality? I think there needs to be more information, and perhaps the Professor has that. And I have only been thinking about these issues for several months.

The "water cooler talk" at the USPTO is pretty boring, actually. And this comes up——

Mr. GOODLATTE. I can imagine.

Mr. KATOPIS. And one of the things that we discussed internally—and I probably shouldn't talk about this too much—is that, where you have this problem, can you give greater deference to the district court by looking at what the legacy of Markman is?

It was suggested that Markman took the issue away from the juries, gave it to the judges, but maybe didn't make it a pure question of law; and maybe there's a way Congress can revise the standard as de novo, based on a question of fact, or something to clamp down on the appellate review.

This may limit an inventor's rights. This may not be a good thing. I guess the goal for Congress is to decide what is an adequate number. Is it 33 percent, 20 percent, 10 percent? You know, what is the goal? Or is it just because of this sound of the cries of frustration that you keep hearing?

Mr. GOODLATTE. Well, let's ask Judge Ellis. Is there something that should be done in the process, before it reaches the district court, that would make district court judges better able to handle this? Or do you just not agree that they're not handling it well to begin with?

Judge ELLIS. Well, I don't agree that they're, en masse, not handling them right. There are always going to be district judges who

don't do their job as well as they should; just as there's a bell curve in every profession, including lawmakers.

Mr. GOODLATTE. Sure. Well, there's no question about that. [Laughter.]

Judge ELLIS. But in the main, I think we are a conscientious group, dedicated to doing the job in all cases. Now, what can be done in advance? Well, certainly there has been a process. We've only been at Markman for 10 years, and there has been a long, tedious process of getting correct, or getting straight, getting clear the rules of construction—from Vitronics through today—and that process is still going on, to some extent.

In fact, I recall one case—and Professor Moore doesn't have to look for it—I was reversed on a Markman construction, where I wasn't reversed in other cases. But there was a dissent. So here is an expert court, two-to-one, and the person who dissented was the person with the technical background.

What can be done? My view is that we can do better about requiring more specific language in patent claims, perhaps. You would be astonished, I think, and it would be instructive to look at the range of patent Markman decisions. What kind of language are judges being asked to determine? "Approximately," "more or less," "nearly," that kind of thing. Some are technical terms, to be sure; but those are the easy ones.

Mr. GOODLATTE. Mr. Chairman, I wonder if I might slide in one more question?

Mr. ISSA. Without objection, the gentleman is granted an additional minute.

Mr. GOODLATTE. I thank the Chairman. Mr. Pegram, since related State claims are often tried in Federal district court, what do you anticipate the effect on the parties would be if we permitted patent cases to be tried at the CIT, as you propose?

Mr. PEGRAM. I don't see that there would be any particular difficulty with that. The district judges have to take up the law of the particular state today, and under those circumstances the CIT judges would have to consider the law of the State. But the fact of the matter is that that rarely occurs and is really significant in, I would guess, less than 5 percent of the cases.

Mr. GOODLATTE. Would this have any relation to these determinations made in district court? Is this court in any way better able to make these determinations than some of the other courts involved?

Mr. PEGRAM. As to State claims?

Mr. GOODLATTE. Yes.

Mr. PEGRAM. Well, I don't think that—you know, I think that, certainly, a district court sitting in a State would have the most knowledge about the laws of that State, and it therefore would be—the CIT would be less of an expert court in the law of the State.

Mr. GOODLATTE. So it's not going to improve the results.

Mr. PEGRAM. But in the 95 percent of the cases which were only patent issues, they'd be much more up to speed. And I would suggest, in answer to your prior question, that the way to have better dealing from the court's point of view with Markman situations is to use more experienced judges. I think Judge Holderman, in his

paper that I've submitted along with my materials, also alludes to that.

The other thing, I do agree with what Judge Ellis has said; and that is that some of these patents are very poorly written claims, the ones that filter up. But what I can't grasp is that, even if the U.S. Patent Office improved 90 percent of the patents issued, we would still be getting several thousand cases a year in which there were badly written claims that would be in the courts. And so I don't really think that we'd have the problem.

Where the claims are clear, we frequently don't even have a dispute, we don't even have a litigation.

Mr. GOODLATTE. Thank you, Mr. Chairman.

Mr. ISSA. Well, thank you. And one nice thing about being the last to question, not only will I have, let's just say, a greater flexibility on my time, but so many good questions have already been answered.

Picking up where the gentleman from Virginia left off, Mr. Pegram, I would be the first to say that I would like this Committee to deal with the ITC and ITC reform, and perhaps enhancement. I have the luxury of being somebody who won a case as a defendant at the ITC. That's the good news.

The bad news is, I also understand that it denies the normal rights; not the least of which is, your accuser throws a Molotov cocktail and then runs away and lets a Federal judge and a Federal prosecutor double-team you.

So having succeeded, I would say that, at this time, to include the ITC in anything that I'm going to suggest to the Chairman may not be yet appropriate. But I'll give you, certainly, a chance to respond. I'd feel inappropriate otherwise.

Mr. PEGRAM. We have the wonderful situation in the United States of several confusing designations. I am referring not to the International Trade Commission, or ITC, which does have a peculiar, to say the best, procedure. I am referring to what used to be the Customs Court, the Court of International Trade.

This is an article 3 court, and it has judges who are fully equivalent to Federal district judges. Although it has its own rules of practice and procedure, they are almost identical to the Federal rules of civil procedure. But it has the benefit that if we wanted to try some experimentation, those rules could be revised for patent cases.

And so I think that if you look at the Court of International Trade, who I think is a highly regarded court, that you might not have the reservations that you would have about the International Trade Commission.

Mr. ISSA. Okay. But one of the proposals, I believe, that was out there was the ITC expanding beyond just injunctive relief, to have damages as something they could grant; which they presently can't. Am I misunderstanding that?

Mr. PEGRAM. It's not my proposal.

Mr. ISSA. It's not your proposal.

Mr. PEGRAM. I have heard people propose——

Mr. ISSA. Okay.

Mr. PEGRAM. —expanding ITC. And there may have been some confusion with my proposal as a result of that.

Mr. ISSA. Good. I've got this.

Mr. PEGRAM. But I do not support that.

Mr. ISSA. It's in there. Chris? Or Mr. Katopis?

Mr. KATOPIS. Congressman, if I may share one observation? And I don't mean to be so sour about the CIT, but I think there's a lot of concern about reversal rates. I invite your attention to the AOC's website. The CIT has had traditionally about a 20 percent reversal rate by the Federal Circuit. For 2005, it's 35 percent. So if you're thinking about adding jurisdiction to the CIT, I just hope that, you know, it satisfies the goals that you're trying to achieve.

Mr. ISSA. Okay. To the core of the proposal of specialization within the court, first, let me make a comment. What I think I heard all of you say is you don't want to take this and make it a separate, truly specialized court at this point, in spite of other countries' actions that do in fact in many cases have a specialized court, without juries, etcetera. Is that generally a nod, that you're all in various ways concerned about that?

Okay. And the reason is, I'm concerned. The Federal judges I've talked to believe, as you do, Judge Ellis, that the generalist, given the right tools, can do better.

To that extent, I'm going to ask a rhetorical question, as someone who's, obviously, never been a judge—except one time in a contest, and it did not involve any of that Potomac activity of yours. [Laughter.]

But Your Honor, you have a chief judge in your district. That chief has scheduling and other rights, and probably checks to make sure that, you know, the electric bill is being paid—a series of administrative responsibilities.

Judge ELLIS. Yes.

Mr. ISSA. And it's usually done on a rotation basis?

Judge ELLIS. No.

Mr. ISSA. Okay. In San Diego, it's a rotation, the way it works.

Judge ELLIS. It is rotation in the sense that the most senior judge, provided he's under 62 or something like that——

Mr. ISSA. Until he gets senior status, has it.

Judge ELLIS. Well, he has it until he's 62. You cannot take senior status into your 90's. But you must be, I think it's 62, before you are the most senior to take it. And then you may only hold it for 7 years.

Mr. ISSA. So it's a limited period of time.

Judge ELLIS. Yes.

Mr. ISSA. Additional facilities and additional staff come with it?

Judge ELLIS. Yes, I think it's one secretary.

Mr. ISSA. Okay. And that's because it takes more people to do that job right.

Judge ELLIS. Yes, sir.

Mr. ISSA. Why would we not apply a similar concept to finding ways to deal with patent cases? And I know you're smiling because—I'm not trying to trap you.

Judge ELLIS. No, I think you're going right down where I want to go.

Mr. ISSA. Okay. [Laughter.]

It's not a question of whether the judge is better or worse. It's not a question of whether they have a degree in chemical engineer-

ing. Because I really appreciate how you focused on it's not a matter of getting the right engineering degree for every patent case, and I think you're right on.

However, frequency—not exclusivity, but frequency of dealing with patent cases; the appropriate staff to help in that process, whether those are permanent staff or they're staff loaned when you have a case, or in fact special assistants or masters, brought to you, instead of the plaintiff and defendant bringing you their experts and trying to spin your head around like "The Exorcist"—is that what you're saying would make your body work better?

I know the gentleman next to you talked in terms of resources as one of the solutions. Is that what you're trying to achieve to do your job better?

Judge ELLIS. I think that's a fascinating and interesting suggestion, and I think I like it. I haven't thought it through.

Mr. ISSA. I didn't want you to. I wanted to get right to it.

Judge ELLIS. If what you're suggesting is that judges who get patent cases, or a lot of them, should have an extra law clerk with expertise? Absolutely. I wouldn't disagree with that for a moment. That would be helpful. But I think it's very important for all district judges not to appoint experts or magistrates. You can't delegate what you've sworn to do. You're the decision-maker. You've got to engage the technology and do it.

Now, I do agree that you ought to have help in doing it. And, sure, if I had another—I have a pretty full docket, but if I had another 20 or 30 patent cases, rest assured, I would be asking you, "Please let me have one or two more law clerks." And I would certainly select them with some technical expertise; which might be in electrical engineering, but a person technically trained could think about life sciences, chemistry, and other things.

Mr. ISSA. Well, to that extent—and I'm going to ask you a follow-up, because it is unique for me to—I mean, actually, a lot of what we've come up with has come from meetings with other Federal judges. It's unique to have somebody in front of you, on the record, to help make the record.

If in your court the rotation pattern, instead of being the next case, the next case, the next case, if it was, for the next year, every case that comes in that's a patent case goes to you; and you're supplemented with these people; but before people can figure out that they want to cheat the system and shop, you're into another one; and then maybe they're back to you, or maybe they're on to a third—would that still meet the requirement that you'd have other cases, you'd still be a generalist, but that we could help to not have what usually happens in San Diego historically?

And I'm speaking for a moment from experience in San Diego. Every time a magistrate became a Federal judge or a district judge, or somebody from outside came in, and you had to redivide, guess what got redivided? Every patent case. In Michigan, the exact opposite. Judge Cohn reached out and took cases.

Now, I have the good fortune that I had a case that I prevailed on in front of a magistrate elevated and then given my case by somebody who wanted to dump it quickly. And then, I also was in Michigan, where Judge Cohn reached out and grabbed a case and,

oddly enough, a case that had been mismanaged and gone to the fed circuit and come back.

I've seen the difference of time, expertise—exactly what you're talking about, as somebody who probably does have a lower reversal rating, who does move the "rocket docket."

Is the goal reasonable, if we can keep from promoting burn-out, keep from artificially creating venue shopping, and if these generalists can be better at what they do, while still having other cases? Are those elements that you would say would work, while still potentially not having every patent case equally divided into 14 judges?

Judge ELLIS. Yes.

Mr. ISSA. Excellent. Is there anyone that followed that, and agrees? [Laughter.]

Ms. MOORE. I agree.

Mr. PEGRAM. I agree, in principle, in the courts that have a sufficient number of judges to do that. But I think that there are other issues, as addressed in my testimony earlier; such as the coordination of procedures across the country and issues such as—I still believe, for example, that 94 district courts, each with a specialist judge, is too many.

Mr. ISSA. Your Honor?

Judge ELLIS. We've talked a little bit. I think Professor Moore mentioned narrowing the venue choices. I don't have a view one way or the other, but that would certainly help in this regard.

Right now, we allow people to select venues. And I believe—although Professor Moore can correct me—guess what? They go to the Northern District of California, they go to the Southern District of New York——

Mr. ISSA. Eastern District of Texas.

Judge ELLIS. Eastern—well, that's a new one. But you're right. And the District of Delaware. The reason they go to the District of Delaware is there's a marvelous hotel right across from the courthouse and good restaurants nearby.

Mr. ISSA. Finally, a valid reason.

Judge ELLIS. Yes. [Laughter.]

But you're always going to have some forum shopping; which is perfectly appropriate, if the venue statute allows it. If you have a venue statute that says you can go to "A," "B," or "C," then that's legitimate. And if you want to narrow it, go ahead and narrow it.

But I understand what you're suggesting is: Look, let us have a system where a designated number of Federal judges in various districts get the patent cases for some period of time, and we give them some more resources to do it, and let them do all the other cases in addition.

I think there would be some district judges who would oppose that, because they want to do them and they wouldn't be designated to do them. In other words, if you had a district of nine judges, as we do, there might only be two that would be designated. There might be another three or four who would want to do it.

By the way, there are many kinds of cases. Those aren't the only. There are a lot of district judges who, once they take senior status,

say, "No more patent cases, no more capital cases, no more securities fraud cases, no more habeas cases." So there are lots of those.

Mr. ISSA. Or just the opposite.

Judge ELLIS. Or just the opposite.

Mr. ISSA. They choose to take——

Judge ELLIS. Exactly.

Mr. ISSA. —certain cases, because they're cerebrally beneficial.

Judge ELLIS. I agree. I agree. But my own concern is that I don't want district judges, and I don't want, to reach out and take a case, because that impairs your impartiality. I think there ought to be a system that does it randomly; you get what you get, and you do what you are given to do.

Mr. ISSA. Let me ask another question of the panel, because this is a suggestion that came up with a number of judges in the Southern District of California. For purposes of the pilot, the study, if we limited this to only double opt-in, meaning that although there would be a judge who was supplemented and relieved of sufficient other duties so that they would be able to rocket these cases, as appropriate—in other words, their criminal docket might be reduced—however, if there was this test, and there's a judge in the Southern District and there's a judge in your district or wherever, however, in order to get a case outside of the rotation, that both the plaintiff and defendant would have to agree, would that alleviate most of your concerns that somehow it was forum shopping? Or it would still be the same thing, except you'd have both sides agreeing to it? Yes, Professor Moore?

Ms. MOORE. I think that would be disastrous. Because you're never going to get agreement by them. And as a result, it's always going to go back into the random selection process. I mean, very seldom are you ever going to get them to agree. Everyone's going to have an idea of who's better for them and who's worse for them.

Most of the time, the litigators are so smart, they can figure it out and get it right. So if it's better for me, it's worse for the other side, you know, and the other side is going to oppose the idea.

Mr. ISSA. You know, every once in a while—and I'm not opposing your statement. You certainly have more qualification. But the only way you get a judge—a bench trial is if both the plaintiff and defendant do not demand a jury; which means both sides want justice, rather than the luck of the draw. And yet—well, I'm sorry—if you want justice, you get a judge; if you want your outcome, you hope for the jury.

I wish I could disagree with that, but everyone who ever had a poor case but was hoping for the best, that I ever saw, asked for a jury. In patent cases. I'm being more narrow than general.

That happens because both sides know that a bench trial is a lot faster. So to the extent that both sides agree to it because they're assured that things will go quicker, etcetera, and they have high confidence, to the extent that that happens, why wouldn't it happen that people would say, "Look, we've got a high-level dispute, it's complicated, but we'd like a pro and we'd like it fast, and we're willing to take the chances that we're wrong"? You don't think that would ever happen?

Ms. MOORE. To the extent they're willing to do that, they already agree to binding arbitration and do it. Proctor and Gamble had a

wonderful history of this. There are many companies that have engaged in binding arbitration. It avoids the litigation altogether. So to the extent that they want to sort of roll the dice, as you said——

Mr. ISSA. Roll the dice, but not roll the dice on the appeal. Your Honor?

Judge ELLIS. I think I agree with Professor Moore. I think it would be rare that it would happen. I've only had—without browbeating the lawyers, I've only had one instance that I can remember where they freely chose to have a bench trial.

And the other interesting thing in this technical aspect, I can't tell you how many times I've had a technical case, and then had both lawyers strike every member of the jury with any technical expertise at all. We're all familiar with that phenomenon.

Mr. ISSA. I'm a witness to it. As a matter of fact, in my case, which was based on relay technology, one time, amazingly, the elevator repairman was specifically excluded, because, basically, that's what elevators are, is relay circuits and relay logic at some point.

The term of a study—now, let's be presumptive, since I saw the right amount of nods that a pilot in a study seemed to be something everybody could agree would give us some potentially good information. Would 4 years be long enough? Would 5 years be too long? Can you give me your opinion of how long you think it would take to have this relatively small group that are proposed here? Let's just say two districts in which this occurs—two circuits, and within that only a district in each.

How long would you think we'd need to go through the process, learning, the additional funding, for trial failure and modification? Judge Moore?

Ms. MOORE. No, not "Judge Moore"——

Mr. ISSA. Oh, I'm sorry. Professor Moore. I'll get to the judge in a moment.

Ms. MOORE. If you have the power to do that, I'm all for it. No, I think that, at minimum——

Mr. ISSA. I'll take you over to the other side of the rotunda. [Laughter.]

Ms. MOORE. I think a minimum of 3 years, preferably five, would really be ideal; because just a couple of quick stats: Patent litigation takes on average 1.1 years, but that's for all cases, even the ones that settle. For a case to get to trial, there's an average over the last 20 years of 3.4 years. That's abominable. But 3.4 years. So if we want to see if judges can develop expertise, we've got to give them enough time to have enough cases, and also have those cases get up to appeal and back down.

Mr. ISSA. Excellent. Mr. Pegram?

Mr. PEGRAM. I agree.

Mr. ISSA. Chris?

Mr. KATOPIS. I agree. And I'd also add, it may be possible, with all due respect to the stats we've seen, to have maybe another study looking back at 10 years of the results, the legacy of Markman; and try to figure out this granular information that keeps me up at night, apparently, about whether it's electrical engineering cases, whether these cases relied on court-appointed experts in the adjudications. So, at least 3 years looking ahead, and

then maybe you could also do something concurrently, looking back.

Mr. ISSA. Your Honor?

Judge ELLIS. Yes. Although my competency doesn't really extend to knowing how long it would take to study something, I would think three to five—three would be minimal.

Mr. ISSA. Okay. And I'm going to close in just a second. Because as much as I'd like to make the record very, very full, you certainly have all been generous with your time. But I do want to ask a question, because I think we have the right group.

When we talked about claim construction, we talked about some of the challenges of reversal rates, I didn't hear anyone talk about the changing interpretation of doctrine of equivalence. You've all been in practice during this period of time. How do you think that the long-term results on that are going to be?

Because, obviously, claim construction at one time included the "what if," you know. And we certainly—it's not just the 102 and 103 that you deal with now. But it was also, you know, "How could we interpret somebody's product to be somehow the equivalent of?" which often kept a case going for longer. Do you see that as changing these statistics, even if we did nothing? Professor Moore?

Ms. MOORE. Thank you. The doctrine of equivalence is definitely being asserted in every, single patent litigation now. And it's a complicated, difficult assessment. Most of the time, it's left to the jury. However, the district court judge has the ability, through a number of avenues—like prosecution history estoppel and other mechanisms—to really impact the decision-making on whether or not it's going to even reach the jury on equivalence.

This is where I think specialized judges would also be an enormous value. Specialized judges, in the way we've been discussing them—via frequency, having the expertise and doing this over and over again—would allow them to interpret the prosecution history more easily and, hopefully, more accurately. So I think it would be beneficial there, as well.

Mr. ISSA. Thank you. Mr. Pegram?

Mr. PEGRAM. I agree completely. The cost of educating a judge who has not had the experience of a patent trial or the experience of a summary judgment motion in the area of the doctrine of equivalence, it's an immense cost to educate that judge for the first time.

Mr. KATOPIS. Congressman, with all due respect, I'm going to pass, because I've only been in private practice for a short time. And as you reminded me before the hearing, I spent the better half of the last number of years raising patent fees, so——

Mr. ISSA. And trying to raise them even further.

Mr. KATOPIS. So I will not contribute to this.

Mr. ISSA. Your Honor?

Judge ELLIS. I agree with Professor Moore's comments. I think I dissent from Mr. Pegram's. You're always going to educate the judge. And I don't know what's different about a patent case from any other case, in terms of educating them. There are judges who get maybe one espionage or national security case, one classified information case, every 5 years. They have to be educated in that.

I really think we've got to focus back on why are we concerned. It's this reversal rate that has everyone concerned. And I'm happy to have a further study of that. I think it's important for us to remember that reversal rate for all issues of law is not much lower than 35 percent.

Mr. ISSA. Well, and I'm going to close with a very, very quick statement and a conclusion that's been written for me. [Laughter.]

But this particular Member, I'm as concerned about the remaining 90 percent that don't get to appeal and are never reversed, or not reversed; that the concept of specialization was the belief that if you lowered from 800-plus—over 1,000, actually, including everyone on senior status—down to 90—which Mr. Pegram objected to in some ways—that what we're doing is we're increasing from four a year, on the average, to maybe 40 a year that people would be dealing with.

Even if it was only for a 2-year, 3-year period, 1-year period, the idea is that the intense focus—and Your Honor, you spoke about it, and I picked up on it. Judges need to focus more on this. The concept that we're hoping to find through the study is: How do we get focused?

And perhaps, like a sabbatical, somebody concentrating in this area within their district for a couple of years; and then, "Been there, done that, I'll give you advice, but Joe down the hall now has the majority of these cases," might allow for a "have your cake and eat it too."

It is a concern of mine; not, though, about the ones that get reversed, alone; it's not just about that. It's about—Your Honor, you did a great job of telling us how the "rocket docket" works. The "rocket docket" isn't working everywhere.

The hope is that all these cases would move better through some process. And if it's not this one, Your Honor, I look forward to learning as much as I can about other ways to provide good results quicker.

Anyone have any closing, before I close?

[No response.]

Mr. ISSA. With that, I'd like to thank the witnesses for their testimony. The Subcommittee is very appreciative of your contribution, and particularly the extended time you granted us.

This concludes the oversight hearing on "Improving Federal Court Adjudication of Patent Cases." The record will remain open for 1 week. I would like to ask, are all of you willing to take any additional questions that come from Members not able to be here?

Then, we will also include that. Thank you for your cooperation. The Subcommittee stands adjourned.

[Whereupon, at 6:05 p.m., the Subcommittee was adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARING RECORD

PREPARED STATEMENT OF THE HONORABLE HOWARD L. BERMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND RANKING MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

Mr. Chairman, thank you for scheduling this oversight hearing on improving federal court adjudication of patent cases. This hearing about the courts that handle patent litigation will be an interesting intersection of two separate issues within the subcommittee's jurisdiction.

Patents are the cornerstone of the economy, and provide incentive for innovation. Therefore, the effect litigation of patents has on the preservation of patent rights is all the more important to continually assess.

The combination of the complex science and technology, the unique patent procedures and laws, the historical right to jury trials, the equitable division of labor and administration of the courts and their dockets, and the multiple methods available for dealing with the issues raised by patent litigation makes improvement of the patent adjudication system a uniquely complicated and difficult task. Many say the system works well, yet at the same time, some say the high costs of litigating and the reversal rate at the district court level reveal otherwise.

These complexities appear to have distorted patent markets and patent economics. The increasing cost of litigating patent infringement and validity issues now frequently gives weak, untested and "presumptively valid" patents the same kind of protection that was previously only granted to or reserved for strong or judicially tested patents.

Patent quality has been a long-time priority of mine, and with the introduction of the Patent Reform Bill, we are trying to ensure the quality of patents. Even so, despite the many efforts made so far, there are still many legal scholars, patent owners, and members of the judiciary and patent bar who believe changes to the patent litigation process in the courts are also necessary to improve the quality of patents. The creation of the Court of Appeals for the Federal Circuit alleviated the inconsistencies at the regional circuit court level. However, some continue to raise concerns about forum shopping at the trial court level.

The Court of Appeals for the Federal Circuit has placed the job of construing patent claims in the hands of our federal district court judges (Markman), and kept other complex issues, such as nonobviousness, inequitable conduct, and novelty in the hands of the jury. Concerns have been expressed about whether a judge or jury can truly learn the intricacies of some of the science and technology placed before them during the length of a typical patent trial. Hopefully, if the post-grant opposition procedures in the Patent Reform Bill are enacted, this will address many of these complex issues before resort to district court litigation occurs. In addition, recent accounts demonstrate that as time passes, and the District Court federal judges are becoming more proficient at application of the claim construction rules spelled out by the Court of Appeals for the Federal Circuit, that the reversal rate is coming down. However, evidence suggests that our federal district courts still spend a much greater ratio of time on patent cases than any other types of cases that come into their courts.

There are many proposals for change in the patent adjudication system. However, before implementing changes, we must first be able to fully understand the issues confronting the system, the many options that may be available to remedy issues in the patent litigation system that have been raised, and the effects of these proposed solutions.

Thank you Mr. Chairman. I yield back the balance of my time.

PREPARED STATEMENT OF THE HONORABLE JOHN CONYERS, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN, AND MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

I have numerous concerns with the idea that Congress should establish a separate judicial system for patent cases. While I recognize that hyper-technical issues arise in patent lawsuits, every area of the law presents complex issues and circumstances. We should not go down the path of having isolated judiciaries or juries for every legal issue.

During today's hearing of possible reforms to adjudication of patent cases, some seek to remedy what they view as an inefficient and expensive system. They argue that the inefficiency is due to the inexperience of the judges, litigants, and lay juries on patent law as well as the technologies behind the cases. Although the increased expertise provided in these reforms, such as having only technical experts as judges or jurors, are an attempt to improve the system, I believe they may be misguided.

The idea of designating certain judges as "experts" to hear those cases is problematic. For instance, how would we determine who gets the classification of "expert?" Furthermore, who would assign "special masters" to apply their technical proficiency and construe patent claims? And how would we be certain that these special masters would not have financial or personal conflicts? The replacement of a lay jury with a "blue-ribbon" jury in these cases invokes similar questions of classifications.

More generally, if the Committee seeks to make these changes for patent litigation, an argument can be made that we should apply the same arguments of inefficiency to all other types of cases and permit only experts to hear them as well. A civil rights lawsuit would have only civil rights lawyers as a judge and jurors. A personal injury lawsuit stemming from an escalator accident would have only escalator engineers as jurors.

For these reasons, I cannot immediately support any of the proposed reforms to the adjudication process for patent litigation.

ARTICLE SUBMITTED BY KIMBERLY A. MOORE, PROFESSOR OF LAW, GEORGE MASON UNIVERSITY SCHOOL OF LAW, ENTITLED "*MARKMAN* EIGHT YEARS LATER: IS CLAIM CONSTRUCTION MORE PREDICTABLE?"

MARKMAN EIGHT YEARS LATER: IS CLAIM CONSTRUCTION MORE PREDICTABLE?

by
Kimberly A. Moore[*]

This Article revisits the growing criticism surrounding the lack of guidance and predictability in claim construction cases after the Markman *decision. Specifically, the Article investigates the Federal Circuit's reversal rate on these cases, as a high reversal rate evidences confusion among the lower courts. In Part II, the author reviews existing empirical studies on the Federal Circuit's reversal rate in claim construction cases, arguing that many of these studies are misleading. Part III clarifies what data must be considered to adequately determine the Federal Circuit's reversal rate of appealed claim construction cases. In Part IV, the author concludes that her new analysis of the reversal rate supports the growing criticism that* Markman *has created confusion, not guidance, in claim construction cases, and the confusion is getting worse.*

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I. INTRODUCTION

There is concern among the bench and bar that the Federal Circuit's de novo review of district court claim construction decisions[1] and lack of guidance have caused considerable unpredictability.[2]

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[*] Professor of Law, George Mason University School of Law. I am grateful to Banner & Witcoff, Howrey Simon Arnold & White, Kenyon & Kenyon, and Morgan, Lewis & Bockius for generously sponsoring this research. I can be contacted at kamoore@gmu.edu with any comments. I am also grateful to the George Mason Center for Law and Economics for continued financial support. Finally, thanks are due to participants at the Tenth Annual Lewis & Clark Business Law Forum for helpful comments, as well as to Scott Thomas, Andrew Sommer, and Joshua Liu for research assistance. © 2004 Kimberly A. Moore.

> There's a real sense of fatalism among the patent trial bar, shared by the district court judges, that no matter how careful we are in trying to apply what the court says about *Markman*, there's a high likelihood that on review, the [Federal Circuit] will change the construction of the claims.[3]

Such concern prompted two prominent practitioners to coin the term "judicial hyperactivity" to describe how the Federal Circuit usurps the province

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[1] Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1451 (Fed. Cir. 1998) (determining that the Federal Circuit shall review district court claim construction decisions de novo).

[2] *See, e.g.*, SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337 (Fed. Cir. 2001) (Dyk, J., concurring) ("[O]ur decisions provide inadequate guidance as to when it is appropriate to look to the specification to narrow the claim by interpretation and when it is not appropriate to do so. Until we provide better guidance, I fear that the lower courts and litigants will remain confused."); William C. Rooklidge & Matthew F. Weil, *Judicial Hyperactivity: The Federal Circuit's Discomfort with its Appellate Role*, 15 BERKELEY TECH. L.J. 725, 729–30 (2000) (criticizing the Federal Circuit's claim construction as appellate fact finding which encourages protracted litigation); Mark T. Banner, *Keeping Current with the Chair*, IPL NEWSLETTER, Summer 2003, at 1, 15 (attributing the high Federal Circuit reversal rate to a "morass of confused and contradictory claim construction canons"); 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, 67 (1999) ("Although, according to the Federal Circuit and the Supreme Court, *Markman* should have ushered in greater uniformity, predictability, and certainty in patent litigation, many believe that the holding has had the opposite effect. This is largely because Federal Circuit review of claim interpretation is de novo."); Michael O'Shea, *A Changing Role for the* Markman *Hearing: In Light of* Festo IX, Markman *Hearings Could Become M-F-G Hearings Which Are Longer, More Complex and Ripe for Appeal*, 37 CREIGHTON L. REV. 843, 843 (2004) (noting three problems in the post-*Markman* world: "(1) a high reversal rate of claim construction decisions by the Court of Appeals for the Federal Circuit results in uncertainty even after trial, (2) litigating patents continues to be expensive, and (3) court resources are routinely wasted by empanelling juries only to re-try the same case in the future"); Victoria Slind-Flor, *Formerly Obscure Court is in Spotlight: Importance of New Technology Makes its Decisions Big News*, NAT'L L.J., Apr. 30, 2001, at B9, B12 (noting that the reversal rates on claim construction issues "has so enraged the bench that one federal judge—Samuel Kent of Galveston, Texas—has dismissed the appeals court as 'little green men wearing propeller hats who don't know Tuesday from Philadelphia'"); George J. Awad & George A. Frank, *Federal Circuit Construction Project: Hard Hats Required*, LEGAL INTELLIGENCER, Aug. 25, 2004, at 5 (stating that "[w]hat is certain is that uncertainty reigns supreme in trying to prognosticate how the CAFC will resolve [the issues in *Phillips*]"); Erik Paul Belt, *Federal Circuit Stresses Ordinary Meaning: In Recent Cases, The Court Has Limited the Narrowing of Claims, Often Benefiting Patent Owners*, NAT'L L.J., Sept. 22, 2003 at S1, S14 (stating that "many feel that *Markman* has not yet led to the hoped-for certainty in claim construction"); Anthony R. Zeuli & Rachel Clark Hugley, *Avoiding Patent Claim Construction Errors: Determining the Ordinary and Customary Meaning Before Reading the Written Description*, FED. LAW., June 2004, at 29, 30 (stating that "[i]t comes as little surprise that some trial judges have grown apathetic to the process, and that nearly all litigants unhappy with the outcome of their cases will appeal and include a claim construction issue"); Victoria Slind-Flor, *Judges Receive Mixed Reviews on Handling of Patent Claims*, N.Y.L.J., March 14, 2002, at 1 ("By most accounts, the *Markman* decision has added uncertainty, costs and delay to a system that already had plenty of all three.") [hereinafter Slind-Flor, *Judges Receive Mixed Reviews*].

[3] Victoria Slind-Flor, Markman *Precedent Holds Up Patents: Ruling Intended to Add Predictability and Speed Fails to Do So*, NAT'L L.J., Jan. 15, 2001, at A1, A12 (quoting Bradford P. Lyerla, patent litigator) (alteration in original).

of the district court in, among other areas, claim construction.[4] The problem is so pernicious that the court itself has taken yet another claim construction case,[5] *Phillips*,[6] en banc in order to establish some ground rules for the claim construction process. In the *Phillips* case, the court invited briefing on fourteen separate questions regarding the types of sources to be consulted in construing claims and the deference to be given to the district court.[7]

It is always useful to quantify any problem. Just how unpredictable is the claim construction process? Existing empirical studies have asserted that the Federal Circuit reverses 25% to 50% of district court claim construction decisions. Practitioners then choose whichever number suits their cause. This is irresponsible empiricism. The Federal Circuit's claim construction reversal rate is not a judgment call. There is a right answer to the question: How often does the Federal Circuit determine that the district court got the claim construction wrong? The reversal rate (rate at which the Federal Circuit determined the claim construction was wrong) for appealed claim terms from 1996, after *Markman* was decided,[8] through 2003 is 34.5%.[9]

In Part II, this Article reviews existing empirical studies on the claim construction process and discusses the shortcomings of these studies. In Part III, the Article presents updated and additional empirical findings on the Federal Circuit's reversal rates of appealed claim construction decisions. Part IV analyzes these results and concludes that criticism over the lack of guidance and unpredictability caused by the current claim construction process is warranted. The problem is getting worse, not better.

II. EMPIRICAL STUDIES OF CLAIM CONSTRUCTION

There are two categories of empirical studies of claim construction that have been performed: result-based and methodology-based. The result-based

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[4] Rooklidge & Weil, *supra* note 2, at 727. Rooklidge and Weil distinguish judicial activism from judicial hyperactivity, as follows:

> Unlike critics who level the charge of 'judicial activism' when they believe that a court has improperly usurped the policy-making role of the legislature, we are concerned with what happens when an intermediate appellate court usurps elements of the decision-making process that are supposed to be the province of the lower courts, administrative bodies, or even litigants.

Id.; *see also* Control Resources, Inc. v. Delta Elecs., Inc., 133 F. Supp. 2d 121, 123–24 (D. Mass. 2001) ("Disappointed litigants and commentators alike have criticized the court for fact-finding and other forms of hyperactive judging. Increasingly, the bar is expressing concern over the court's decision-making procedures and its apparent willingness to take over the roles of patent examiner, advocate and trier of fact.").

[5] The previous en banc claim construction decisions were *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996), and *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448 (Fed. Cir. 1998).

[6] Phillips v. AWH Corp., 376 F.3d 1382 (Fed. Cir. 2004).

[7] *Id.* at 1383. Although the court has seven numbered questions, with subparts in most of them, there are in actuality fourteen questions the court is inviting the parties and amici to address.

[8] Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996).

[9] *See infra* Part III.A.

studies, like this one, focus on outcome data to determine, among other things, how bad the problem is. The methodology-based studies focus on the process itself to explain why the problem is so bad. Both are useful in judging the process.

A. Result-Based Studies: What is the Reversal Rate?

It is undoubtedly frustrating to have several studies which purport to present the Federal Circuit's reversal rate of district court claim construction. The existing literature asserts a reversal rate ranging from 25% to 50%, depending on the study cited. The other empirical literature on this subject suffers from several serious flaws. The most substantial of which is the failure to review the Federal Circuit's Rule 36 summary affirmances.[10]

When the Federal Circuit resolves an appeal, it can issue a precedential opinion, a non-precedential opinion, or a summary affirmance. Precedential opinions are opinions in which the court can either affirm or reverse the district court judgment, and these opinions are published and create citable precedent on the issues of law to which they pertain. Non-precedential opinions are law of the case in which they are issued, but do not create citable precedent.[11] These opinions can also either affirm or reverse the district court judgment. The court may also resolve a case by a Rule 36 summary affirmance.[12] This is an affirmance of the district court without opinion. These affirmances leave intact and affirm the judgment of the district court (and any claim construction determinations by the district court which were appealed). A case is not summarily affirmed because it is unimportant and should not be considered.[13] It is summarily affirmed because the district court got it right, and there is no new law that needs to be explained, defined, clarified or established.[14] There are no

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[10] Only this study and its predecessor include all Rule 36 cases. *See* Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 8–10 (2001).

[11] Fed. Cir. R. 47.6(b).

> Nonprecedential Opinion or Order. An opinion or order which is designated as not to be cited as precedent is one determined by the panel issuing it as not adding significantly to the body of law. Any opinion or order so designated must not be employed or cited as precedent. This rule does not preclude assertion of claim preclusion, issue preclusion, judicial estoppel, law of the case, or the like based on a decision of the court designated as nonprecedential.

Id.; *see also* Penelope Pether, *Inequitable Injunctions: The Scandal of Private Judging in the U.S. Courts*, 56 STAN. L. REV. 1435, 1442 44 (2004) (explaining the origin, purpose and current state of unpublished, non-precedential decisions); Dean A. Morande, *Publication Plans in the United States Courts of Appeals: The Unattainable Paradigm*, 31 FLA. ST. U. L. REV. 751 (2004); Richard B. Cappalli, *The Common Law's Case Against Non-Precedential Opinions*, 76 S. CAL. L. REV. 755 (2003).

[12] Fed. Cir. R. 36.

[13] One commentator suggested that it was acceptable to omit the Rule 36 affirmances because these were "quickies." Slind-Flor, *Judges Receive Mixed Reviews*, *supra*, note 2, at 7.

[14] Entering judgment without opinion under this rule is proper when:

> [A]ny of the following conditions exist and an opinion would have no precedential value: (a) the judgment, decision, or order of the trial court appealed from is based on

summary reversals. Whenever the Federal Circuit reverses, it issues an opinion explaining how and why the district court was wrong.

The Federal Circuit resolves claim construction appeals by all three means (precedential opinion, non-precedential opinion and Rule 36 summary affirmance). Obviously, eliminating a large group of non-randomly selected cases would affect the results. Studies that did not consider the Rule 36 summary affirmances eliminated a large group of affirmances from their dataset. This skewed their results and they report a significantly higher reversal rate than actually exists. All of the other early claim construction studies (the Chu Study (44% reversal rate),[15] the Bender Study (40% reversal rate),[16] and the Zidel Study (41.5% reversal rate)[17]) omitted Rule 36 cases from their claim

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> 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. 36.

[15] Christian A. Chu, *Empirical Analysis of the Federal Circuit's Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1104 (2001) (finding that the Federal Circuit overturned 44% of the 179 district court claim constructions that were appealed between January 1, 1998 and April 30, 2000). The Chu Study appears at first blush to have included Rule 36 summary affirmances, and in fact it did for overall reversal rates, but *not* for the claim construction calculations. Chu states "because this methodological definition requires that claim constructions explicitly appear in the court's opinions, cases implicitly construing claims and summary affirmances would be excluded from the subset of cases where the court has 'reviewed' claim constructions." *Id.* at 1094. "[T]his study first examined the Federal Circuit's reversal rate of lower court judgments by analyzing the court's written opinions. . . ." *Id.* at 1097. "Using the 396 cases with available written opinions, this study ascertained the number of cases per month in which the court changed at least one claim interpretation. . . ." *Id.* at 1100–01. Chu explains that his approach "excludes all 106 summary affirmances because the methodology's focus on express claim construction requires the availability of a written opinion." *Id.* at 1100 n.121. I am uncertain what methodology Chu refers to or the justification for excluding Rule 36 decisions which affirm claim construction, other than the difficulty attendant the identification and empirical collection of these cases. Although Chu does not perform any analysis of the 106 actual Rule 36 cases, not even a sample of them to ascertain the frequency with which they address claim construction, he does "attempt[] to estimate the effect of summary affirmances on the rate of claim construction changes and claim interpretation-based reversals." *Id.* at 1101 n.121 (referring to an estimation in Appendix A). While Chu's reversal rate of 44% does not include any summary affirmances, he does include a table in the appendix showing the results if no summary affirmances are included and the results if all summary affirmances are assumed to be claim construction cases. My criticism of the Chu study is limited to its omission of summary affirmances from issue specific reversal rate statistics. The study is otherwise well done and provides interesting insights on appeals of other patent issues and of patent cases generally.

[16] Gretchen Ann Bender, *Uncertainty and Unpredictability in Patent Litigation: The Time is Ripe for a Consistent Claim Construction Methodology*, 8 J. INTELL. PROP. L. 175, 207 (2001) (finding that the Federal Circuit reversed 40% of the 160 claim constructions appealed in from *Markman* through 2000).

[17] 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, 741–42 (2003) (finding that the Federal Circuit reversed 39 of the 94 claim construction decisions in 2001).

construction reversal rate determinations.[18] Although the studies were generally clear about what they considered,[19] and some even pointed out that they did not include Rule 36 summary affirmances,[20] they generally did not explain the consequences of this omission. Without the Rule 36 summary affirmances, these reversal rates are inaccurate—they are artificially high. It is common sense that if one excludes a bunch of affirmances, it will appear as though the court reverses more often than it does.

The empirical studies, other than this one, omitted the Rule 36 summary affirmances because they are simply too difficult to include. Since the summary affirmances simply indicate that the case was affirmed, there is no easy way of determining what issues where involved in the appeal. The information cannot be obtained from a quick search on Westlaw or Lexis, but instead requires resort to the briefs filed with the Federal Circuit. Unless one obtains the original appellate briefs that were filed, and painstakingly reviews each one, one cannot determine whether a summary affirmance is an affirmance of a district court claim construction or an affirmance of some other unrelated issue. Obtaining the actual briefs is both time consuming and expensive. This study did just that; it reviewed every Rule 36 summary affirmance during the period of interest to ascertain whether the appeal involved claim construction. If so, it was included.

To understand the magnitude of the error in data collection and its impact, consider this study. Of the 1100 claim construction terms appealed in this study, 15.5% (170) were resolved by Rule 36 summary affirmance, 34.7% (328) were resolved via non-precedential opinion of the court, and 49.8% (548) were resolved via precedential opinion of the court. The resultant reversal rate of 34.5% considered all of these cases. If the Rule 36 summary affirmances are left out, the reversal rate becomes 40.8%.

None of the studies which omitted the Rule 36 cases explain how profound the impact on the results would likely be despite the fact that the significance was intuitively obvious. When one eliminates affirmances, one finds a higher reversal rate. Moreover, it is sensible to assume that a large number of Rule 36 cases would likely involve claim construction, because the construction of any individual claim term does not have significant impact beyond the parties. The meaning of a particular claim term does not have precedential value beyond the

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[18] There have been other studies attempting to quantify the reversal rates such as one by the American Bar Association Section on Intellectual Property, which surveyed its members to ascertain frequency of reversal (using just six cases where the surveys were returned (five of which were reversals)). *See American Bar Association Section of Intellectual Property Law 1999* Markman *Survey*, IPL NEWSLETTER, Spring 2000, at 14–15; *see also* W. Thad Adams, III & J. Derel Monteith, Jr., *The Continuing Saga of Federal Circuit Patent Claim Construction Jurisprudence: Extrinsic Evidence and Other Stories*, 8 FED. CIR. B.J. 83 (1999) (finding that the Federal Circuit reversed 35% of all claim construction decisions appealed in 1998 and part of 1999 (34 cases)).

[19] In fact, the Bender and Zidel studies list all of the cases considered in very long footnotes and appendices. Bender, *supra* note 16, at 204–07 nn.215–16; Zidel, *supra* note 17, app. A.

[20] The Chu study says "this study did not include Rule 36 summary affirmances in the dataset of Figure A-1." Chu, *supra* note 15, at 1097 n.112.

patent at issue. In short, claim construction cases seem likely candidates for Rule 36 affirmance—that is, when the district court gets the construction right. However, the data show that claim construction appeals are actually less likely to be affirmed via Rule 36 then other patent appeals. As mentioned above, 15.5% of all the claim construction appeals were summarily affirmed. Another study found that among the 502 patent appeals to the Federal Circuit resolved between January 1, 1998 and April 30, 2000, 106 were summarily affirmed—21.1%.[21] This result suggests that claim construction cases are, thus far, less likely to be the subject of a Rule 36 summary affirmance despite the intuition that these sorts of cases would be the least likely to have precedential value. This is likely correlated to the ultimate finding of this study; namely, that claim construction reversals have gotten worse over time, not better. Since the Federal Circuit is reversing more claim construction decisions in recent years,[22] there are fewer Rule 36 summary affirmances.

The first assertion regarding claim construction reversal rates came directly from one of the Federal Circuit judges and appeared in a concurrence to the en banc decision in *Cybor Corp.*[23] This, of course, gives the number the imprimatur of accuracy. In this decision, Judge Rader states as follows:

> [O]ne study shows that the plenary standard of review has produced reversal, in whole or in part, of almost 40% of all claim constructions since *Markman I*. A reversal rate in this range reverses more than the work of numerous trial courts; it also reverses the benefits of *Markman I*. In fact, this reversal rate, hovering near 50%, is the worst possible. Even a rate that was much higher would provide greater certainty.[24]

Interestingly the Judge cites the reversal rate as "almost 40%" then says that 40% is "hovering near 50%." With this empirical slight of hand, claim construction reversal is raised from the actual finding of the study, 38.3%, to 50%, and quoted by people accordingly.[25] Although we have no idea from the opinion who conducted the study, the opinion does explain:

> This figure is based on a survey of every patent decision rendered by the Court of Appeals for the Federal Circuit between 5 April 1995 (the date *Markman I* was decided) and 24 November 1997. A total of 246 patent cases, originating in the Board of Patent Appeals and Interferences (BPAI), the district courts, and the Court of Federal Claims, were evaluated. Of the 246 cases, 141 cases expressly reviewed claim construction issues. Among these 141 decisions, this court reversed, in whole or in part, 54 or 38.3% of all claim constructions. With respect to

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[21] *Id.* at 1099.

[22] *See infra* Part III.

[23] Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1473 (Fed. Cir. 1998) (Rader, J., concurring).

[24] *Id.* at 1476.

[25] Zeuli & Hugley, *supra* note 2, at 29 ("The reversal rate of patent claim constructions is nearing 50 percent. Many believe the process is flawed, the results too unpredictable, and the procedures too costly.").

> the district court and Court of Federal Claims cases, the rate of reversal of claim constructions is 47 out of 126 or 37.3%.[26]

This explanation does not clarify whether the empiricist considered all Federal Circuit cases: Rule 36, non-precedential, and precedential. It is also unclear when a case is considered "reversed." Are cases only included if they result in an actual reversal of the district court judgment, or are they included whenever the Federal Circuit determines that the district court wrongly construed claim construction? It is possible that the district court could get claim construction wrong but the case would still be affirmed. For example, suppose the district court construed two terms favorably for the infringer, each of which results in a finding of non-infringement. The Federal Circuit may determine that the district court construed one of the terms wrongly but still affirm the judgment of non-infringement based on the other term.

In comparing all of these empirical studies, one must be mindful not only of the shortcomings of some of the empirical collection but also of exactly what the study means by "reversal rate." There are three possibilities. First, reversal rate can be the rate at which the Federal Circuit determined that the district court claim construction was wrong (even if it did not actually result in reversal of the judgment) on a term-by-term basis. In many appeals, more than one construed term was appealed, so statistics can be reported on a term-by-term basis or on a case-by-case basis. In this study, the Federal Circuit determined that the district court wrongly interpreted 34.5% of all claim terms that were appealed. Second, the reversal rate could be the number of cases in which one or more claim term was erroneously construed. In this study, that reversal rate would be 37.5%. Finally, the reversal rate could be only the cases in which a claim construction error actually resulted in reversal of the appealed judgment. In this study, 29.7% of the cases were reversed or vacated and remanded because of erroneous claim construction. Obviously, the definition of "reversal rate" could impact the percentage by almost 8% (29.7%–37.5%).

B. Methodology-Based Studies

Few empirical studies examine the methodology behind Federal Circuit decision-making on any issue. There are two such studies on the issue of claim construction. A study by Wagner and Petherbridge found that the Federal Circuit is divided between two methodological approaches to claim construction: procedural and holistic.[27] Additionally, the study found evidence of panel dependence in claim construction decision-making.[28] The most recent empirical study, by Miller and Hilsenteger, analyzes the Federal Circuit's use of dictionaries in defining claim terms.[29] This study will undoubtedly be useful to the court in resolving the en banc *Phillips* case on this very point.

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[26] *Cybor Corp.*, 138 F.3d at 1476 n.4.

[27] R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1111 (2004).

[28] *Id.* at 1112.

[29] Joseph Scott Miller & James A. Hilsenteger, *The Proven Key: Roles and Rules for Dictionaries and the Patents Office and the Courts*, 54 AM. U. L. REV. (forthcoming May

III. THE EMPIRICAL STUDY

In this study, I update and expand my earlier empirical project described in *Are District Court Judges Equipped to Resolve Patent Cases?*.[30] This original database now contains all precedential, non-precedential, and Rule 36 (summary affirmances) decisions of the Federal Circuit on claim construction from the Supreme Court's *Markman* decision (1996) through 2003.[31] This dataset contains 1100 appealed claim construction terms from 651 separate cases.

A. Reversal Rates

After a de novo appeal, the Federal Circuit held that 34.5% of the terms were wrongly construed by the district court. In the 651 cases, the Federal Circuit held at least one term was wrongly construed in 37.5% of the cases. In the cases in which one or more term was wrongly construed, the erroneous claim construction required the Federal Circuit to reverse or vacate the district court's judgment in 29.7% of the cases.

2005) (manuscript on file with author, *available at* http://ssrn.com/abstract=577262 (empirically demonstrating that the "caprice with which judges currently may choose dictionaries effectively eliminates whatever neutrality and predictability gains the turn to dictionaries can offer" and recommending that the patentee be required to list dictionary selections for defining claim terms in the patent application itself) (quoting from abstract).

[30] Moore, *supra* note 10. See this earlier Article for a detailed description of the data collection process and the acknowledged shortcomings of the dataset.

[31] I conducted a search on Westlaw using the query "patent & claim /s interp! or construl." Each case retrieved was examined to determine whether the district court judge's claim construction was being appealed to the Federal Circuit. I also collected the data on all Rule 36 summary affirmances that occurred during this same time period in order to ascertain whether the issue affirmed was claim construction. Pursuant to Rule 36 of the Federal Circuit Rules of Procedure, the court can summarily affirm without opinion a district court judgment. There were 276 Rule 36 affirmances during the time period of this study. After obtaining the appeal briefs in these cases (two cases could not be located by the Federal Circuit), I discovered that 104 cases did appeal district court claim constructions. There were 170 claim terms appealed in these 104 cases.

B. Who Wins—Patentee or Infringer?

The Federal Circuit has long been criticized as a pro-patentee forum.[32] Analyzing the claim construction data according to infringer and patentee wins may shed some light on this critique. Among the claim construction terms appealed to the Federal Circuit, 76% were won by the infringer at the district court level. This probably confirms popular perceptions that district courts are increasingly granting summary judgment of non-infringement following claim construction because it is the only way to get appellate review of claim construction at an early stage in the proceedings.[33] In fact, in another study, I found that 86% of all summary judgments granted in all patent cases terminated from 1999–2000 were summary judgments of non-infringement. There could be another possible explanation: namely, that patentees who lose on claim construction are more likely to appeal than infringers who lose. Hence, the pool of appealed cases is not random or representative of district court decisions, but rather appeal is more likely whenever the patentee loses. There are asymmetric stakes in most patent litigations.[34] The patentee has more to lose than the infringer because, if the claims are construed narrowly, the patentee will not be able to assert them against other potential infringers. These asymmetric stakes make appeal by the patentee more likely, which would skew the pool of appealed cases.

Regardless of the pool of district court decision-making, appellate review statistics can provide insight into the patentee/infringer debate. While the infringer won 76% of the appealed claim constructions from the district court,

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[32] *See* Mark D. Janis, *Reforming Patent Validity Litigation: The "Dubious Preponderance"*, 19 BERKELEY TECH. L.J. 923, 928 (2004) (stating that "[t]he perception that the Federal Circuit enhanced the effect of the presumption of validity coincides with the generally received wisdom that the Federal Circuit adopted a pro-patent bias early in its tenure"); Hon. Richard Linn, *The Future Role of the United States Court of Appeals for the Federal Circuit Now That It Has Turned 21*, 53 AM. U. L. REV. 731, 733 (2004) (stating that the belief that the CAFC was a pro-patent court "may have been justified" citing to "[c]omparative statistics from the years just before and just after the court's establishment"); William M. Landes & Richard A. Posner, *An Empirical Analysis of the Patent Court*, 71 U. CHI. L. REV. 111, 112 (2004) (asserting that "[a]s expected, the Federal Circuit has turned out to be a pro-patent court in comparison to the average of the regional courts that it displaced in the patent domain"); WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 335 (2003) (arguing that, as predicted, the CAFC would become a pro-patent court due, at least in part, to special interest groups including "the patent bar and its clients", who "would exert themselves to influence" judicial selection for the court); John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 251 (1998) (concluding that findings of patent validity have been significantly higher since the establishment of the Federal Circuit). *But cf.* Glynn S. Lunney, Jr., *Patent Law, the Federal Circuit, and the Supreme Court: A Quiet Revolution*, 11 SUP. CT. ECON. REV. 1, 3 (2004) (stating that "[d]espite the Federal Circuit's pro-patent holder reputation, this summary reveals that claims of patent infringement are no more likely to succeed since the Federal Circuit's advent").

[33] *See* Wagner & Petherbridge, *supra* note 27, at 1119 n.47 (observing that "[m]any district court judges, however, simply enter summary judgment for one of the parties after construing the claims, creating a de facto interlocutory appeal").

[34] Kimberly A. Moore, *Judges, Juries & Patent Cases—An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 377 (2000).

after appellate review, the claim construction only favored the infringer in 58% of the cases. This may lead some to conclude that the Federal Circuit is in fact pro-patentee, because they reverse a higher number of infringer wins. The fact that their claim constructions favor the infringer 58% of the time with de novo review suggests that the court, if anything, favors the infringer. However, there is, of course, a selection effect story to tell. Normally, the party with more at stake would only try stronger cases because a loss would harm them more.[35] However, the appeal is a different matter altogether. In this case, there already exists a negative claim construction determination that harms the patentee not just in this action, but with all other possible infringers. The determination harms their ability to secure licensing revenue and their chances at litigation. In addition, appeals have low transaction costs as compared to trials. Since patentees have more at stake in patent cases, and with claim construction in particular, and since the appeal costs little, it makes sense that they would actually appeal even weaker cases. With the de novo review, patentees have little to lose.[36] This might explain why on appeal claim construction decisions favor infringers slightly more than patentees. Hence, while the Federal Circuit finds in favor of patentees more often than the district court judges looking at the same terms, the overall rate of 58% in favor of infringers belies claims that the Federal Circuit is pro-patentee. Table 1 indicates that the 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.

Table 1: Patentee v. Infringer Win Rates	
Who Won At District Court	Federal Circuit Claim Construction Reversal Rate
Patentee Won	32.3%
Infringer Won	33.2%

[35] George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984) (explaining the effect of asymmetric stakes on trial rates).

[36] Even if the review was more deferential, there would likely be a "Hail Mary" appeal by the patentee in these circumstances.

C. Means-Plus-Function Terms

Construing means-plus-function claim terms is even more difficult.[37] The patentee has the option of using function rather than structural claim language. If the patentee chooses to use a means-plus-function term, then the court looks to the specification to identify the structure that corresponds to the claimed means.[38] According to the Federal Circuit, means-plus-function infringement analysis requires several steps. First, the judge must determine whether a claim term even employs means-plus-function language.[39] Second, the judge must identify the function.[40] Third, the judge must identify the corresponding structure from the patent's specification.[41] Finally, the factfinder must determine whether the accused device has the same or equivalent structure. The first three steps are all part of the claim construction analysis and must therefore be performed by the district court judge.

The overall rate of district court errors on means-plus-function terms according to appellate review is 39.3%. In 39% of the term appeals, the district

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[37] *See* Dawn Equip. Co. v. Kentucky Farms Inc., 140 F.3d 1009, 1018 (Fed. Cir. 1998) (Plager, J. concurring) (stating that with respect to the application of the doctrine of equivalents to means-plus-function claims that the "law in this area [is] confused and confusing"); Eva M. Ogielska, Note, IMS Technology, Inc. v. Haas Automation, Inc. & Kemco Sales, Inc. v. Control Papers Co., 16 BERKELEY TECH. L.J. 71 (2001) (noting that "[t]he difficulties of claim interpretation are particularly apparent in the judicial construction of means-plus-function claims"); Yoncha Lynn Kundupoglu, *The Law of Means-Plus-Function Language (Part I of II)*, 28 AIPLA Q.J. 39, 43 (2000) (observing that the "[i]nterpretation of means-plus-function limitations has been complicated by the competing [policy-based] roles played by claims"); Rudolph P. Hofmann, Jr. & Edward P. Heller, III, *The Rosetta Stone for the Doctrines of Means-Plus-Function Patent Claims*, RUTGERS COMPUTER AND TECH. L.J. 227, 240 (1997) (noting that "uncertainty as to the construction of a means-plus-function limitation . . . makes difficult the assessment of likely outcomes of patent infringement litigation"); Lawrence Kass, Comment, *Computer Software Patentability and the Role of Means-Plus-Function Format in Computer Software Claims*, 15 PACE L. REV. 787, 850 (1995) (stating that the construction of means-plus-function claims "has bred confusion and controversy, particularly with regard to computer program and mathematical algorithm inventions"); Chris Ullsperger, *Lessons in Claim Construction from the Federal Circuit; Reading, Writing, and Reversal*, INTELL. PROP. TODAY, Sept. 1, 2002, at 14 (concluding from review of patent related claims in 2001 that "complicated issues such as the construction of 'means-plus-function' claims remain especially resistant to resolution at the district court level").

[38] 35 U.S.C. § 112 (2000).

[39] *See* KIMBERLY A. MOORE ET AL., PATENT LITIGATION & STRATEGY 321–24 (2d ed. 2003) (explaining that while the rule of thumb is that if a claim uses the word "means" it invokes § 112, para. 6, there are several exceptions); *cf.* Lighting World, Inc. v. Birchwood Lighting, Inc., 382 F.3d 1354, 1358 (Fed. Cir. 2004) ("The task of determining whether the limitation in question should be regarded as a means-plus-function limitation, like all claim construction issues, is a question of law for the court, even though it is a question on which evidence from experts may be relevant.").

[40] Gemstar-TV Guide Int'l, Inc. v. Int'l Trade Comm'n, 383 F.3d 1352, 1361 (Fed. Cir. 2004) ("In construing a means-plus-function claim limitation, the recited function within that limitation must first be identified.").

[41] Golight, Inc. v. Wal-Mart Stores, Inc., 355 F.3d 1327, 1334 (Fed. Cir. 2004) ("The next step in construing a means-plus-function claim limitation is to look to the specification and identify the corresponding structure for that function.").

court failed to correctly perform one of the three steps described above. If means-plus-function language appeals are removed from the study, the Federal Circuit determined that the district court claim construction was wrong in 33.4% of the terms. Hence, the overall reversal rate for non-means-plus-function terms is lower than that for means-plus-function terms. It seems that district court judges do struggle slightly more with means-plus-function terms.

Breaking down the errors helps to find where the problems arise. Means-plus-function language was at issue in 191 of the appealed claim terms. In 162 terms, both the Federal Circuit and the district court agreed that the term was a means-plus-function term. In 25 terms, the district court held that a term employed means-plus-function language, but the Federal Circuit disagreed. Finally, in four instances, the district court held that a term did not employ means-plus-function language, but the Federal Circuit disagreed. Hence in 15.2% of the means-plus-function term appeals, the district court wrongly assessed whether means-plus-function language even applied.

Isolating just the cases where both the Federal Circuit and the district court identified the term as employing means-plus-function language (162 cases), the reversal rate was only 30.9%. It appears from this that district courts struggle more with the question of whether a term employs § 112, para. 6 means-plus-function language than they do with claim construction generally. This may support adoption of a black letter application standard; namely, if the term uses the word "means," it is a means-plus-function term, but if it does not use the term "means," it does not employ § 112, para. 6.[42]

D. Claim Construction By the Federal Circuit Judges

The Federal Circuit consists of twelve active judges and four senior judges. Five of the active judges were appointed after *Markman* was decided[43] and three after *Cybor Corp.*[44] There are twenty Federal Circuit judges that have participated in claim construction decisions during the eight years of this study. Twelve of the judges have participated in more than 100 claim construction decisions. As Table 2 shows, in the 1100 claim constructions that were appealed, there were only 36 dissents. Hence, while the Federal Circuit disagreed with the district court judges as to the proper claim constructions in

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[42] MOORE ET AL., *supra* note 39, at 321–24 (suggesting a black letter rule); *cf.* Michael T. Hopkins, *When a Lack of Equivalence Can Still Be Equivalent—Litigating Infringement of Means-Plus-Function Claims*, 40 IDEA 581, 586 (2000) (noting that despite "seemingly rational and straightforward exceptions to the general means-plus-functions rules" there is an "inherent difficulty surrounding the application" of the rules); Mark D. Janis, *Who's Afraid of Functional Claims? Reforming the Patent Law's § 112, ¶ 6, Jurisprudence*, 15 SANTA CLARA COMPUTER & HIGH TECH. L.J. 231, 236 (1998) (arguing that § 112, para. 6 should be eliminated because of "the sudden emergence of a vexing and Byzantine threshold scheme for determining whether an arguably functional expression in fact qualifies as a 'means plus function' expression").

[43] Judges Bryson, Gajarsa, Linn, Dyk, and Prost are all new to the court. Judge Bryson was actually appointed before the *Markman* decision issued but after the appeal was initiated, and he therefore did not participate in the decision.

[44] Judges Dyk, Linn and Prost were appointed after *Cybor Corp.*

34.5% of the appeals, they only disagreed amongst themselves in 3% of the appeals.

Table 2 Participation by Federal Circuit Judges in Claim Construction Appeals

Judge	# of Cases	# Terms Construed	Majority	# of Terms Opinion Authored	Dissents
Archer	53	83	83	14	0
Bryson	150	256	255	79	1
Clevenger	170	280	277	85	3
Cowen	7	10	10	0	0
Dyk	83	139	138	37	1
Friedman	42	73	71	0	2
Gajarsa	147	239	236	55	3
Linn	73	147	146	61	1
Lourie	163	269	268	106	1
Mayer	149	249	245	10	4
Michel	158	288	285	86	3
Newman	171	263	257	59	6
Nies	2	2	2	1	0
Plager	84	143	143	24	0
Prost	40	71	71	13	0
Rader	190	341	335	138	6
Rich	59	95	95	39	0
Schall	159	278	273	54	5
Skelton	15	23	23	0	0
Smith	16	24	24	0	0

Table 3, below, details the outcomes by judge. There is significant variation in likelihood of reversal by judge. As the table details, affirmance rates by judge vary from 50% to 90%. There also appears to be considerable variation in patentee win rates by judge. Of course, this may be a function of the population of appealed cases. As noted earlier, more pro-infringer claim constructions are appealed.

Interestingly, Judge Newman, who has previously been shown to have a high patent holder win rate on the issue of validity,[45] has a low patentee win rate on the issue of claim construction. Reconciling these findings may suggest that Judge Newman is pro-patent but not necessarily pro-patentee.

[45] John R. Allison & Mark A. Lemley, *How Federal Circuit Judges Vote in Patent Validity Cases*, 10 FED. CIR. B.J. 435, 446 (2001).

Table 3 – Substantive Outcomes Among Federal Circuit Judges of Claim Construction Appeals

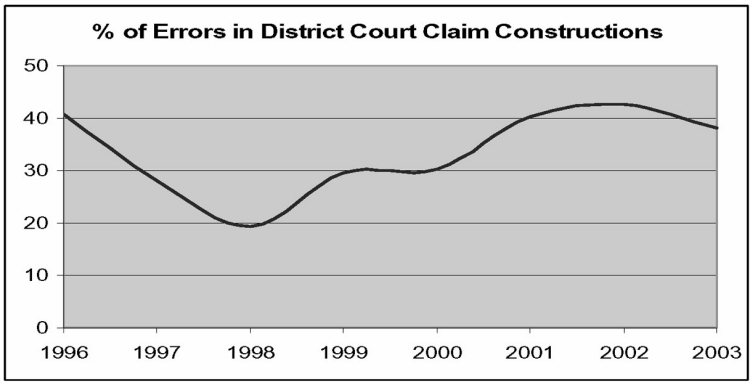
Judge	# of Claim Terms Construed	% of Terms District Court Construed Correctly	% of Cases District Court Construed All Terms Correctly	% of Terms Patentee Wins
Archer	83	73%	72%	37%
Bryson	256	62%	59%	38%
Clevenger	280	72%	66%	44%
Cowen	10	90%	86%	20%
Dyk	139	55%	48%	52%
Friedman	73	58%	50%	42%
Gajarsa	239	67%	65%	38%
Linn	147	50%	51%	54%
Lourie	268	65%	59%	38%
Mayer	249	68%	63%	45%
Michel	288	68%	67%	40%
Newman	263	70%	68%	39%
Nies	2	50%	50%	50%
Plager	143	67%	67%	30%
Prost	71	69%	68%	35%
Rader	341	64%	58%	47%
Rich	95	59%	58%	41%
Schall	278	63%	60%	43%
Skelton	23	83%	80%	17%
Smith	24	79%	81%	38%

While it might seem that judges with a technical background themselves might be more inclined to substitute their own claim construction for that of the district court judge, the data does not support this assumption. It is a common misconception that all the Federal Circuit judges were first engineers or scientists. In fact, only four of the twenty judges in this study had some sort of scientific background (Judges Gajarsa, Linn, Lourie, and Newman). A simple linear regression comparing the likelihood of reversal rates of judges with a technical background versus nontechnically trained Federal Circuit judges defies this prediction. In short, technical judges are not more likely to reverse than nontechnical judges. Moreover, there is not a greater likelihood that the opinion will be authored by a technically trained judge when the claim construction is reversed ($p=0.073$). However, judges with technical backgrounds are more likely to dissent in claim construction cases ($p=0.000$).

IV. THE REVERSAL RATE IS GETTING WORSE NOT BETTER

It seemed logical that the reversal rate would be highest shortly after *Markman* was decided because at that time claim construction was new to district court judges. Many held the belief that over time, with the evolution of

precedent and clear canons of claim construction to guide the district courts, the reversal rate would go down.[46] In short, if the Federal Circuit provides adequate guidance, the district court judges should get better at construing claims. As the figure below shows, the claim construction reversal rate did decline after *Markman* but rose again after *Cybor Corp.* This is not surprising, given that in *Cybor Corp.* the court resolved a dispute regarding how much deference ought to be given to district court claim constructions, concluding that a de novo standard of review ought to apply. The continued rise in reversal rates five years after the *Cybor Corp.* decision suggests that the district court judges are not able to resolve claim construction issues as the Federal Circuit judges would like.



The high reversal rate could be due to the fact that district court judges lack technical training and repeat exposure to claim construction. But this seems unlikely, given that the Federal Circuit judges themselves generally lack technical training in the particular issues being appealed. As previously discussed, only four of the judges have technical backgrounds. In addition, a chemistry background is only useful in chemistry cases but would not provide that judge a background for electrical engineering, mechanical engineering or even biotech cases.

While the Federal Circuit judges undoubtedly construe more claim terms than a given district court judge, the claim construction inquiry depends entirely on what information is presented in the specification and what the ordinary and customary meaning of the term would be to one of skill in the art—clearly a factual inquiry that will vary with each patent. In short, construing claim terms in a given patent does not make construing claim terms in a different patent any easier.

With judicial claim construction now nearing its adolescence (eight years from the Supreme Court's *Markman* and ten years from the Federal Circuit's

[46] Moore, *supra* note 10, at 29; Chu, *supra* note 15, at 1097 ("Over time, claim construction should thus become more predictable and consistent, thereby reducing reversible errors in claim construction.").

Markman), there should be more predictability. The reversal rate ought to be going down, not up. The fault, at this point, undoubtedly lies with the Federal Circuit itself. The court is not providing sufficient guidance on claim construction. There have not evolved any clear canons of claim construction to aid district court judges, and in fact the Federal Circuit judges seem to disagree among themselves regarding the tools available for claim construction.

The court seems to realize that the internal conflict warrants en banc scrutiny, and hopefully the *Phillips* decision will provide the clarity that has yet to emerge from eight to ten years of claim construction. Again, only time will tell.

ARTICLE SUBMITTED BY KIMBERLY A. MOORE, PROFESSOR OF LAW, GEORGE MASON UNIVERSITY SCHOOL OF LAW, ENTITLED "FORUM SHOPPING IN PATENT CASES: DOES GEOGRAPHIC CHOICE AFFECT INNOVATION?"

FORUM SHOPPING IN PATENT CASES: DOES GEOGRAPHIC CHOICE AFFECT INNOVATION?

KIMBERLY A. MOORE*

This Article undertakes the first large-scale empirical analysis of patent enforcement in the district courts. The Article is organized around four major questions. What motivates parties to forum shop? Can variation in patent case resolution among jurisdictions be substantiated? Are jurisdictional variation and the resulting forum shopping good or efficient? Can forum shopping be reduced or eliminated?

The empirical results demonstrate that despite the creation of the Federal Circuit, choice of forum continues to play a critical role in the outcome of patent litigation. The data indicate that patent cases are not evenly dispersed throughout the ninety-four judicial districts or dispersed according to the relative size of the court's civil docket generally, but rather consolidated in a few select jurisdictions. The ten most frequently selected forums are examined in detail in an attempt to ascertain their appeal for patent holders. Noting procedural and substantive differences in adjudication of patent cases by these top ten jurisdictions, the Article determines that choice of forum is a multi-dimensional inquiry which is not easily explained.

The lack of uniformity in patent enforcement is problematic. With increasingly national competition among products, the patent jurisdiction and venue statutes allow plaintiffs to bring their patent suits in virtually any district in the country. Providing plaintiffs with many potential venues for bringing suit increases the ability of parties to forum shop. The Article concludes by considering whether the

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patent system might benefit from the increased predictability that could be achieved by a specialized trial court or a more limited venue statute.

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"Click your heels together three times and say, 'There's no place like home, there's no place like home.' "[1]

INTRODUCTION

Despite the overwhelming costs of patent litigation,[2] no recent research analyzing regional variation in the adjudication of patent cases exists.[3] The dearth of work in this area may be attributable to an assumption that the Federal Circuit is a panacea for regional variation in patent case resolution.[4] This assumption, however, is incorrect in a judicial system in which ninety-four district courts[5] with 646 active federal judges[6] around the country resolve patent cases in the first instance.

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1. THE WIZARD OF OZ (Metro-Goldwyn-Mayer 1939).

2. *See* AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION, REPORT OF ECONOMIC SURVEY 1999, at 72 (noting that an average patent infringement suit in California, for example, will cost each party over two million dollars in litigation expenses).

3. Two pre-Federal Circuit empirical studies verified the existence of appellate variation in patent case adjudication. *See generally* GLORIA K. KOENIG, PATENT INVALIDITY: A STATISTICAL AND SUBSTANTIVE ANALYSIS (1980) (providing systematic analysis of the details in patent decisions and patent office prosecution data); P.J. Federico, *Adjudicated Patents, 1948–54*, 38 J.P.O.S. 233 (1956) (providing statistical report of the number of adjudicated patents and the results of the adjudications from 1948–1954 using a database limited to published opinions).

4. *E.g.*, Andrea Gerlin, *Patent Lawyers Forgo Sure Fees on a Bet*, WALL ST. J., June 24, 1994, at B1 (stating that the Federal Circuit, which has exclusive nationwide jurisdiction over all appeals from patent infringement suits, "wiped out all the screwy theories and forum shopping"); *see also* C.R. Bard, Inc. v. Schwartz, 716 F.2d 874, 878 (Fed. Cir. 1983) ("This court was formed to provide uniformity in the patent field and to prevent forum shopping."). The Federal Circuit was created in 1982 in order to make patent law and its enforcement uniform and consistent. In its report on the Federal Courts Improvement Act of 1982, which created the Federal Circuit, the House stated:

> Patent litigation long has been identified as a problem area, characterized by undue forum-shopping and unsettling inconsistency in adjudications. Based on the evidence it compiled during the course of thorough hearings on the subject, the Commission on Revision of the Federal Court Appellate System—created by Act of Congress—concluded that patent law is an area in which the application of the law to the facts of a case often produces different outcomes in different courtrooms in substantially similar cases. As a result, some circuit courts are regarded as "pro-patent" and other "anti-patent," and much time and money is expended in "shopping" for a favorable venue. In a Commission survey of practitioners, the patent bar reported that uncertainty created by the lack of national law precedent was a significant problem; the Commission found patent law to be an area in which widespread forum-shopping was particularly acute.

H.R. REP. NO. 97-312, at 20–21 (1981) (footnotes omitted), *reprinted in* 1982 U.S.C.C.A.N. 11, 30–31; *see also* S. REP. NO. 97-275, at 5 (1981), *reprinted in* 1982 U.S.C.C.A.N. 11, 15 (stating that "[t]he establishment of the Court of Appeals for the Federal Circuit also provides a forum that will increase doctrinal stability in the field of patent law").

5. *See* Federal Judiciary, Frequently Asked Questions, *at* http://www.uscourts.gov/faq.html#district (last visited April 15, 2001) (on file with the North Carolina Law Review) (indicating that there are ninety-four district courts).

6. *See* LEONIDAS RALPH MECHAM, 1999 ANNUAL REPORT OF THE DIRECTOR, at 23,

This Article undertakes the first large-scale empirical analysis of patent enforcement in the district courts after the creation of the Federal Circuit. My database includes every patent case that was terminated by any means (e.g., settlement, dismissal, judgment) from 1995 to 1999 (five years of data) in every district court (9615 cases) and every patent case that went to trial (1409 cases with 1943 separate claims) from the period 1983 to 1999 (seventeen years of data).

The empirical results presented in this Article demonstrate that despite the creation of the Federal Circuit, choice of forum continues to play a critical role in the outcome of patent litigation. The data indicate that patent cases are not dispersed evenly throughout the ninety-four judicial districts nor dispersed according to the relative size of the court's civil docket generally, but rather consolidated in a few select jurisdictions. This suggests that patent holders are actively selecting particular forums. The empirical results substantiate procedural and substantive differences in district court adjudication of patent cases. The differing procedures for resolving patent cases and differing potential outcomes create an environment in which forum shopping has a major impact on litigation.[7]

The lack of uniformity in patent enforcement is problematic in and of itself. The concern this inconsistency generates is greatly magnified when the patent holder has unfettered choice among the ninety-four district courts—escalating inconsistency into unpredictability. With increasingly national and international competition among products, the patent jurisdiction and venue statutes allow plaintiffs to bring their patent suits in virtually any district in the country. Providing plaintiffs with so many potential venues for bringing suit increases the ability of parties to forum shop. Much effort and expense result from the ability of parties to forum shop. The prevalence of forum shopping is a direct by-product of the existing statutory framework.

Forum shopping conjures negative images of a manipulable legal system in which justice is not imparted fairly or predictably. The idea that some jurisdictions will be preferred because of bias towards one party is troubling. Forum shopping forces the acknowledgment that the promise of equal, consistent, and uniform application of justice—the legal positivist ideal—is unattainable in a system in which the law is administered by

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http://www.uscourts.gov/judbus1999/contents.thml (on file with the North Carolina Law Review) (showing in Table 3 that in 1999 there were 646 judges).

7. Stewart Org., Inc. v. Ricoh Corp., 487 U.S. 22, 39–40 (1988) (Scalia, J., dissenting) ("Venue is often a vitally important matter, as is shown by the frequency with which parties contractually provide for and litigate the issue. Suit might well not be pursued, or might not be as successful, in a significantly less convenient forum.").

human beings.[8] In addition to these normative implications, forum shopping creates economic inefficiency in the legal system. If all patent cases were resolved predictably and uniformly by the district courts, there would be no need for forum shopping. There would in fact be a reduction in litigation because parties would be more likely to settle if they could accurately forecast outcome.[9]

This Article addresses four major questions: What motivates litigants to forum shop? Can variation in patent case resolution among jurisdictions be substantiated? Is jurisdictional variation and the resulting forum shopping good or efficient? Can forum shopping be reduced or eliminated? Part I outlines how and why parties try to control forum selection. Focusing on the jurisdiction and venue laws for patent cases, this Part also examines where patent cases may be brought. Part II is the core empirical portion of the Article. It describes the data set used in this study, its development and composition, and the methodology used to analyze the data. The data show significant variations in district court resolution of patent cases. The variations may be broadly characterized in two ways: procedural and substantive. Both differences influence forum selection and outcome. Procedurally, I examine how district courts vary in speed of case resolution, the litigation stage at which resolution occurs, and the method by which district courts resolve patent disputes. Substantively, I examine

8. Jim R. Carrigan, *Foreword* to W. STUART DORNETTE & ROBERT R. CROSS, FEDERAL JUDICIARY ALMANAC, at v (1986) ("The choice of forum and the choice of philosophical approach to a case will be critical choices as long as society chooses judges from the ranks of human beings.").

9. Samuel R. Gross & Kent D. Syverud, *Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial*, 90 MICH. L. REV. 319, 324 (1991) ("[I]f plaintiffs and defendants always agreed in their predictions of trial outcomes, there would be no trials at all."); Leandra Lederman, *Precedent Lost: Why Encourage Settlement, and Why Permit Non-Party Involvement in Settlements?*, 75 NOTRE DAME L. REV. 221, 259 (1999) ("[F]inding a settlement range depends on similar estimates of trial outcome by each side and the absence of strategic behavior."). Of course, a party might choose not to settle for strategic reasons despite increased clarity in the ability to predict outcome. Samuel R. Gross & Kent D. Syverud, *Don't Try: Civil Jury Verdicts in a System Geared to Settlement*, 44 UCLA L. REV. 1, 57 (1996) (noting that litigants may prefer resolution over settlement in order to obtain public vindication); Russell Korobkin & Chris Guthrie, *Psychological Barriers to Litigation Settlement: An Experimental Approach*, 93 MICH. L. REV. 107, 109–11 (1994) (suggesting that if the ligitant views the opposition as morally blameworthy, he may be unlikley to accept an otherwise reasonable offer); Russell Korobkin & Chris Guthrie, *Psychology, Economics, and Settlement: A New Look at the Role of the Lawyer*, 76 TEX. L. REV. 77, 79–80 (1997) (listing reasons litigants might not behave in accordance with the economic predictions). In patent cases, a party's interest in the ramifications of a final disposition of the infringement suit may be significant enough to eliminate efficient settlements. For example, one party may be particularly interested in having the court construe the patent claims because the construction could impact future development of products or future infringement suits. The accused infringer may strive to invalidate the patent to clear the way for additional product lines.

how win rate data vary regionally. I categorize the outcome data by substantive issue to explore regional variations in validity, enforceability, infringement, and willfulness. Finally, I discuss the significant difference in patent holder win rate based on who selected the forum—patent holder or accused infringer.

Part III focuses on the pitfalls of forum shopping. Specifically, it considers whether the jurisdictional variation reflected in the data is appropriate or efficient for the legal system by examining its effects on the predictability, uniformity, and consistency of the law. Part IV recommends changes in patent case adjudication focusing on minimizing the continued viability of forum shopping. I discuss ways to eliminate forums and eliminate shopping in order to maximize efficiency and the innovation incentive animating the patent system. In particular, I consider the creation of a specialized trial court to decide patent cases or, in the alternative, more restrictive venue requirements to minimize the ability of parties to forum shop.

I. JURISDICTION IN PATENT CASES: ANYTHING GOES

A patent holder may initiate suit in any federal district court where personal jurisdiction and venue requirements are met. Personal jurisdiction is not unique to patent law and requires only that the defendant have purposeful minimum contacts with the district in which the case is brought.[10] The minimum contacts rule provides fair warning to non-residents that they may be subject to litigation in that forum.[11] In patent cases, this inquiry involves the consideration of three factors: whether the defendant purposefully directed activities at residents of the district, whether the claim relates to the defendant's activities within the district, and whether personal jurisdiction over the defendant in the district is reasonable and fair.[12] Personal jurisdiction requirements are usually met if the defendant sells, offers to sell, or licenses others to sell products to residents of the forum.[13] Hence, any company that operates in national

10. Burger King Corp. v. Rudzewicz, 471 U.S. 462, 474–75 (1985).

11. *See, e.g.*, Beverly Hills Fan Co. v. Royal Sovereign Corp., 21 F.3d 1558, 1565 (Fed. Cir. 1994).

12. Akro Corp. v. Luker, 45 F.3d 1541, 1545 46 (Fed. Cir. 1995); *see* R. Scott Weide, *Patent Enforcement Deterrence: Liberal Assertions of Personal Jurisdiction in Declaratory Judgment Actions*, 65 UMKC L. REV. 177, 178 (1996) (arguing that liberal findings of personal jurisdiction in patent declaratory judgment suits conflict with patent holder rights and public policy).

13. *See, e.g.*, World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 297 (1980) ("[I]f the sale [by] a manufacturer or distributor . . . arises from the efforts of the [defendants] to serve, directly or indirectly, the market for its product . . . it is not unreasonable to subject it to suit in one of those states."); *Beverly Hills Fan Co.*, 21 F.3d at 1565 ("The allegations are that

commerce is likely subject to personal jurisdiction in many possible districts.

Venue is supposed to be a distinct and separate requirement from personal jurisdiction.[14] Personal jurisdiction focuses on the power of the court over the parties, while venue focuses on the convenience of the particular jurisdiction for the parties to litigate the suit, particularly the defendant.[15] Patent cases have their own venue statute that permits a patent suit to be brought in "the judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business."[16] With respect to individuals, the defendant resides where she is domiciled.[17] With respect to corporations, the defendant resides, for venue purposes, in any judicial district where personal jurisdiction is proper.[18] Traditionally, the patent venue statute was the "sole and exclusive provision controlling venue in patent infringement actions" and was not supplemented by the general venue statute.[19] They were distinct statutes.

The interpretation of the patent venue statute has been the subject of considerable judicial inquiry and expansion over the years. While an individual "resides" where she is domiciled, there has been some controversy as to the correct construction for corporations. Prior to the 1988 amendments to the general venue statute, the term "resides" in the

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defendants purposefully shipped the accused fan into Virginia through an established distribution channel. The cause of action for patent infringement is alleged to arise out of these activities. No more is usually required to establish specific jurisdiction."); Imagineering, Inc. v. Van Klassens, Inc., 797 F. Supp. 329, 331–32 (S.D.N.Y. 1992) (holding the sale of two allegedly infringing rocking chairs sufficient to establish personal jurisdiction over the defendants). Simply sending a cease-and-desist letter without more activity in a forum state is not enough to satisfy the minimum contacts requirement and subject the defendant to personal jurisdiction. Red Wing Shoe Co. v. Hockerson-Halberstadt, Inc., 148 F.3d 1355, 1360–61 (Fed. Cir. 1998); Genetic Implant Sys., Inc. v. Core-Vent Corp., 123 F.3d 1455, 1458 (Fed. Cir. 1997). Moreover, simply operating a Web site that advertises a product does not satisfy the minimum contacts requirement. Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119, 1124 (W.D. Pa. 1997) ("If the defendant enters into contracts [over the Internet] . . . personal jurisdiction is proper. . . . [Whereas, a] passive Web site that does little more than make information available to those who are interested in it is not grounds for the exercise of personal jurisdiction." (citations omitted)).

14. *See* 15 CHARLES ALAN WRIGHT ET AL., FEDERAL PRACTICE & PROCEDURE § 3801 (2d ed. 1986) (noting that venue and jurisdiction are distinct requirements).

15. *See* Charles S. Ryan, *The Expansion of Patent Venue Under the Judicial Improvements and Access to Justice Act*, 77 J. PAT. & TM. OFF. SOC'Y 85, 86 (1995); *see also* Delta Air Lines, Inc. v. W. Conference of Teamsters, 722 F. Supp. 725, 727 (N.D. Ga. 1989) ("[T]he fundamental and historical purpose of venue . . . is that there is a particular court or courts in which an action 'should be brought' for convenience of the parties, particularly that of defendant.").

16. 28 U.S.C. § 1400(b) (1994).

17. 28 U.S.C. § 1400 (1994 & Supp. IV 1998).

18. 28 U.S.C. § 1391(c) (1994); VE Holding Corp. v. Johnson Gas Appliance Co., 917 F.2d 1574, 1578 (Fed. Cir. 1990).

19. Fourco Glass Co. v. Transmirra Prods. Corp., 353 U.S. 222, 229 (1957).

patent venue statute was interpreted as permitting suit to be brought only in the corporation's state of incorporation.[20] The second possible venue option was "where the defendant has committed acts of infringement and has a regular and established place of business."[21] This language was originally interpreted as a fixed physical facility requirement.[22] The Federal Circuit broadened this test, interpreting the regular and established place of business language as meaning "whether the corporate defendant does its business in that district through a permanent and continuous presence there and not . . . whether it has a fixed physical presence."[23]

In 1988, Congress amended the general venue statute to provide that a corporate defendant "reside[s] in any judicial district in which it is subject to personal jurisdiction at the time the action is filed."[24] This provision substantially broadened the number of potential venues where litigation could be initiated—from the state of incorporation to any district in which there is personal jurisdiction, which for national companies is effectively any jurisdiction. Despite the historical separation of the general venue and the patent venue provisions, in *VE Holding Corp. v. Johnson Gas Appliance Co.*[25] the Federal Circuit determined that this modified definition of "resides" also applied to broaden the patent venue statute.[26] Hence, after the 1988 amendment, a corporation "resides," for purposes of the patent venue statute, in any district where personal jurisdiction is proper.[27] This result rendered superfluous the patent venue statute for corporate defendants.

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20. *See id.* at 229 (stating that a corporation "resides" under the patent venue statute in its state of incorporation).

21. 28 U.S.C. § 1400(b).

22. Mastantuono v. Jacobsen Mfg. Co., 184 F. Supp. 178, 180 (S.D.N.Y. 1960). *Mastantuono* held that, in order to establish venue in patent litigation, a simple showing that the defendant was "doing business" in the jurisdiction would not suffice. Rather, the court stated, "It must appear that a defendant is regularly engaged in carrying on a substantial part of its ordinary business on a permanent basis in a physical location within the district over which it exercises some measure of control." *Id.*; *see also* Dual Mfg. & Eng'g, Inc. v. Burris Indus., Inc. 531 F.2d 1382, 1386–88 (7th Cir. 1976) (finding jurisdiction proper because defendant had a regular and established place of business in the judicial district).

23. *In re* Cordis Corp., 769 F.2d 733, 737 (Fed. Cir. 1985).

24. Pub. L. No. 87-748, 76 Stat. 744 (codified as amended at 28 U.S.C. § 1391(c) (1994)).

25. 917 F.2d 1574 (Fed. Cir. 1990).

26. The court's conclusion was based on the language in the amended statute "[f]or purposes of venue under this chapter." *Id.* at 1578 (quoting 28 U.S.C. § 1391(c)). The Federal Circuit held that the plain meaning of this language indicated congressional intent to expand the definition of "resides" everywhere that term was used in the chapter, including 28 U.S.C. § 1400(b). *Id.* at 1580.

27. *Id.* at 1578. Prior to *VE Holding*, "resides" under § 1400(b) meant the state of incorporation only. Fourco Glass Co. v. Transmirra Prods. Corp., 353 U.S. 222, 226 (1957).

These liberalizations of the jurisdiction and venue statutes, combined with the technological feasibility and ease of national commerce, have greatly expanded the plaintiff's choice of forum, which in turn has intensified and facilitated forum shopping. This means that national corporations may be sued in virtually any U.S. district court. Potential defendants do have several vehicles for leveling the playing field—namely, declaratory judgment actions and transfer statutes that permit them to request a change of venue when such a transfer is in "the interest of justice."[28] Transfer motions, however, are not frequently granted, in part because courts give substantial deference to the plaintiff's choice of forum in determining whether to transfer.[29] In determining whether to transfer an action to another district court where venue and jurisdiction are proper, the court considers the following factors: deference to the plaintiff's choice of forum, convenience to the parties, convenience to witnesses and counsel, differences in costs of litigation in the two forums, the ease of access to sources of proof, congestion of the courts' dockets, and the interest in having local controversies decided at home.[30] Given the breadth of these factors, transfer is a complicated inquiry very much at the discretion of the district court.[31]

Another option for a potential infringer is to act offensively in the forum selection process by bringing a declaratory judgment action. When the infringer brings a declaratory judgment action, it initiates the lawsuit and thereby chooses the forum.[32] A declaratory judgment action, however, can only be brought if an actual controversy exists between the parties[33] because courts may not issue advisory opinions.[34] An actual controversy exists in patent disputes when there is (1) an explicit threat or other action by the patentee which creates in the infringer an objectively reasonable apprehension of being sued and (2) present potentially infringing activity or

28. 28 U.S.C. § 1404(a) (1994 and Supp. IV 1998).

29. *See* Hollyanne Corp. v. TFT, Inc., 199 F.3d 1304, 1307 n.2 (Fed. Cir. 1999) ("A transfer of venue for the convenience of the parties normally requires that the court give great weight to the plaintiff's choice of forum and then weigh the convenience of both parties."); KIMBERLY A. MOORE ET AL., PATENT LITIGATION & STRATEGY 80 (1999); *cf.* Kimberly Jade Norwood, *Shopping for a Venue: The Need for More Limits on Choice*, 50 U. MIAMI L. REV. 267, 320 (1996) (arguing that a plaintiff's choice of forum should only be given deference if that choice was based on demonstrable convenience).

30. Gen. Foam Plastics Corp. v. Kraemer Exp. Corp., 806 F. Supp. 88, 89 (E.D. Va. 1992); E. Scientific Mktg., Inc. v. Tekna-Seal, Inc., 696 F. Supp. 173, 180 n.13 (E.D. Va. 1988).

31. *See* 28 U.S.C. § 1404(a) (1994 & Supp. IV 1998) (granting discretion to the district court); Reiffen v. Microsoft Corp., 104 F. Supp. 2d 48, 50 (D.D.C. 2000) (indicating that the district court has discretion to adjudicate motions to transfer on a case-by-case basis).

32. 28 U.S.C. § 2201(a) (1994).

33. *Id.*

34. Hunter Douglas, Inc. v. Harmonic Design, Inc., 153 F.3d 1318, 1326 (Fed. Cir. 1998); Fina Oil & Chem. Co. v. Ewen, 123 F.3d 1466, 1470 (Fed. Cir. 1997).

concrete steps taken with the intent to conduct such activity.[35] When the patentee sends the accused infringer a cease-and-desist letter accusing a specific product of infringement and threatening litigation if remedial action is not taken, declaratory judgment jurisdiction is easy for the accused infringer to establish.[36] In the absence of an explicit threat, courts consider the following in assessing whether there is a reasonable apprehension of suit: the patentee's willingness and capacity to sue (Has the patentee sued others? Has the patentee sued this defendant before?), the relationship between the parties at the time of the suit (Are the parties in on-going licensing negotiations?), and the nature of the contacts between the parties regarding this patent (Has the patent holder made any specific allegations? Has the patentee offered the defendant a license? Did the patentee contact the defendant directly or as part of a mass mailing?).[37]

Personal jurisdiction and venue requirements for a declaratory judgment plaintiff are governed by the general venue statute rather than the specific patent venue statute[38] because a declaratory judgment action is not considered a "civil action for patent infringement."[39] At present, the patent venue statute and the general venue statute are interpreted identically for corporations and turn on whether there is personal jurisdiction over the defendant.[40]

Before litigation over personal jurisdiction and venue even begin, parties may forum shop with the intent of gaining the jurisdictional upperhand. Forum shopping involves "the practice of choosing the most favorable jurisdiction or court in which a claim might be heard."[41] In most civil litigation, forum shopping can occur horizontally or vertically. Vertical forum shopping is the choice between filing suit in state or federal court. If the plaintiff files suit in state court, the defendant may have the option of removing the suit to federal court under limited circumstances, such as diversity of citizenship.[42] Generally, vertical forum shopping is not a concern in patent cases because federal district courts have original and

35. MOORE, *supra* note 29, at 29.

36. *See, e.g.*, FMC Corp. v. Norand Corp., 89 F.3d 807, 812 (Fed. Cir. 1996) (explaining that a letter threatening litigation creates a reasonable apprehension of suit). *But see* Lisa A. Dolak, *Declaratory Judgment Jurisdiction in Patent Cases: Restoring the Balance Between the Patentee and the Accused Infringer*, 38 B.C. L. REV. 903, 944–47 (1997) (advocating a more liberal application of the actual controversy requirement for declaratory judgments in order to permit increased utilization of this equalizing tool).

37. MOORE, *supra* note 29, at 29.

38. 28 U.S.C. § 1391(c) (1994 and Supp. IV 1998).

39. 28 U.S.C. § 1400 (1994 and Supp. IV 1998).

40. *See supra* notes 14–27 and accompanying text.

41. BLACK'S LAW DICTIONARY 666 (7th ed. 1999).

42. 28 U.S.C. § 1332 (1994 and Supp. IV 1998). Removal is generally permitted whenever the case could have been brought originally in federal court. *See* 28 U.S.C. § 1441(a) (1994).

exclusive subject matter jurisdiction over any civil action arising under the patent laws.[43] Horizontal forum shopping, the selection of a particular district court from the many different possible district courts, is the type of forum shopping that occurs in patent cases.

The selection of a forum initially belongs exclusively to the plaintiff who files the lawsuit. There are many reasons that a party may believe that a particular jurisdiction is preferable. In selecting a forum the plaintiff (or defendant in a declaratory judgment action) would likely consider the following: the knowledge, background, and experience of the judges; the judges' previous experience with high technology or patent matters; the characteristics, predispositions, and biases of potential jurors; the attorney's familiarity with the district and the judges in the district; the local rules of the district court; the practices of the judges in the district regarding whether they conduct *Markman* hearings; at what point in the litigation the claims will be construed; the type of evidence the judges will consider in construing the claims;[44] the court's docket and its speed in resolving cases; the reputation of the parties in the district; and, of course, traditional factors, such as the convenience for the parties, witnesses and attorneys.[45]

Convenience issues once were the driving factor in venue selection for the parties. In this age of national and international commerce, however, convenience of the parties, witnesses, and location of evidence is becoming less significant in the parties' calculus than other considerations, particularly characteristics of the court such as speed, familiarity with technology, and familiarity with patent cases.[46] For example, a patent

43. 28 U.S.C. § 1338(a) (1994 and Supp. IV 1998). Courts determine if a case arises under the patent laws using the well-pleaded complaint rule. Christianson v. Colt Indus. Operating Corp., 486 U.S. 800, 809 (1988); *see also* Emmette F. Hale, III, *The "Arising Under" Jurisdiction of the Federal Circuit: An Opportunity for Uniformity in Patent Law*, 14 FLA. ST. U. L. REV. 229, 242 43 (1986). Some patent issues, such as disputes over licensing or assignments, can be brought in state court because they are a matter of state contract law rather than federal patent law.

44. *Markman* hearings are evidentiary hearings held by district courts to assist the court in construing patent claims. District courts have discretion to conduct these hearings (or not conduct them) in any manner they see fit. They may construe the patent claims solely on the briefs submitted by the parties, or they may hold an evidentiary hearing (a mini-trial) with the presentation of extrinsic evidence on claim construction, including witness testimony, learned treatises, or other evidence of claim term meaning. *Markman* hearings are named after the Supreme Court decision, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996), which established that claim construction is the exclusive province of judges rather than juries.

45. In many areas of the law, the plaintiff may also consider the law of the appellate court (circuit court) in a particular forum. The creation of the United States Court of Appeals for the Federal Circuit has eliminated this consideration from the calculus. All patent infringement suits and declaratory judgment actions are appealed exclusively to the Federal Circuit. 28 U.S.C.A. § 1295(a) (1993 & West Supp. 2000). There is no shopping among the regional circuits.

46. Gita F. Rothschild, *Forum Shopping*, LITIGATION, Spring 1998, at 40, 40 ("But as cases have become bigger and the world has become smaller, lawyers are placing increasingly less

holder may prefer to initiate its lawsuit in a jurisdiction with sufficient familiarity with patent cases, such as the District of Delaware or the Eastern District of Virginia ("Rocket Docket"),[47] in the hope of an expedient resolution of their proprietary rights. The patent holder may believe that a fast jurisdiction will give the infringer less time to scour the earth looking for invalidating prior art and less time to mount a defense in general. The infringer may prefer the Northern District of California[48] because of a belief that it is likely to obtain a jury with more sophistication in high technology or computer technology because of the characteristics of the San Jose or Palo Alto population from which the jury would be pulled. The infringer may hope that a tech-savvy jury will be more likely to understand the technical distinctions between its device and the patent claims and would therefore be less likely to find infringement.[49]

With borderless commerce the norm and with lax jurisdiction and venue requirements, plaintiffs in patent cases have an unfettered choice of where to bring suit. This Article attempts to ascertain whether forum really matters by determining whether there are statistically significant differences in adjudication by different districts.

II. EMPIRICAL FINDINGS

There is virtually no empirical literature on the impact of forum selection in civil litigation and none at all on patent cases after the creation of the Federal Circuit in 1982.[50] This Article presents the empirical results

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emphasis on personal convenience.").

47. The Eastern District of Virginia has been dubbed the "Rocket Docket" because of the fast adjudication that occurs in the jurisdiction.

48. The Northern District of California is presently the only district with local procedural rules for patent cases mandating the procedure and practice the court will follow. N.D. CAL. CIV. P. 16-7(a); *see also* Mark L. Austrian & Shaun Mohler, *Timing is Everything in Patent Litigation—Fulfilling the Promise of* Markman, 9 FED. CIR. B.J. 227, 232–35 (1999) (discussing Northern District of California rules for patent cases).

49. Interestingly, both of these predictions turn out to be inaccurate in light of the empirical evidence. The District of Delaware has a relatively low patent holder win rate and the Northern District of California has the highest patent holder win rate. *See infra* Table 8 and accompanying text.

50. Professors Kevin Clermont and Theodore Eisenberg conducted a meaningful analysis of the impact of forum shopping on outcome in civil cases by examining different procedural methods of resolution practiced by different courts. Kevin M. Clermont & Theodore Eisenberg, *Exorcising the Evils of Forum Shopping*, 80 CORNELL L. REV. 1507 (1995). Clermont and Eisenberg also considered outcome variation based on cases in which the plaintiff obtained her choice of forum versus cases that were successfully transferred by the defendant. *Id.* at 1530. They concluded that the existence of the section 1404(a) transfer option counters detriments of forum shopping. *Id.* Their research, which was based on cases adjudicated between 1979 and 1991, did not compare individual districts, consider tried issues, or study patent cases. Two pre-Federal Circuit empirical studies also substantiated the significance of forum shopping by documenting variations amongst the regional circuits in the resolution of patent cases. *See*

of a study of patent litigation from 1983 to 1999 in order to analyze all trials since the formation of the Federal Circuit. The Administrative Office of the United States Courts compiles statistics on terminated cases by subject matter, including the parties, docket number, dates of filing and termination of the suit, the monetary demand for damages by the plaintiff, the judicial district, the procedural circumstances of the termination (whether termination was by court action prior to trial, by settlement, or after a trial), whether the case was tried to a judge or jury, which party prevailed in the suit, and what relief was granted. I looked at the data provided by the Administrative Office for all patent cases terminated by any means in every district court during the five-year period from 1995 to 1999 (9615 cases), and I collected detailed information on all patent cases that went to trial during the seventeen-year period from 1983 to 1999 (1409 cases).[51] For the tried cases, I acquired information including: (1) party names and docket number, (2) date the suit was filed and date of termination, (3) judicial district where the proceedings occurred, (4) stage of proceedings when the termination occurred and the manner of the termination (summary judgment, settlement, motion to dismiss, or trial, for example), (5) whether the adjudicator was judge or jury, (6) which party prevailed in the suit (patentee or alleged infringer[52]), (7) which party was the patentee, (8) whether the fact finder held the patent valid or invalid,[53] (9) whether the fact finder held the patent enforceable or unenforceable, (10) whether the fact finder held the patent infringed or not infringed, and (11) whether the fact finder held the patent willfully infringed or not

generally KOENIG, *supra* note 3 (including a comparison of the decisions between the courts of appeals by circuit regarding adjudicated patents); Federico, *supra* note 3 (limiting analysis, however, to published opinions).

51. The Administrative Office was the original source for general information on the trial data, but I personally studied each trial reported to the Administrative Office to acquire more complete information. For a discussion of some deficiencies in the Administrative Office data, see Kimberly A. Moore, *Judge, Juries and Patent Cases: An Empirical Peek Inside the Black Box*, 98 MICH. L. REV. 365, 381 (2000). To overcome the deficiencies, I personally researched and verified the cases for which detailed information on outcome was collected in the data set of tried cases from 1983 to 1999 (1409 cases). These data were collected by researching public records, such as court opinions and news reports, and by collecting special verdict forms and judgment sheets from the district courts. For the data set of all cases terminated from 1995 to 1999, I relied upon the Administrative Office data regarding procedural termination stage and case filing and termination dates.

52. Throughout the results and tables, I will refer to the alleged infringer as the "infringer" for brevity.

53. When patents are issued by the United States Patent and Trademark Office (USPTO), they are presumed valid. 35 U.S.C.A. § 282 (West 1984 and Supp. 2000). Accordingly, the infringer has the burden of proving the patent invalid by clear and convincing evidence. *See* Environ Prods., Inc. v. Furon Co., 215 F.3d 1261, 1265 (Fed. Cir. 2000). Since patents are already valid when validity is challenged, the court holds the patent invalid or not invalid. But for brevity, I will refer to patents as adjudicated valid or invalid throughout the tables and results.

willfully infringed. This data set includes detailed information on every bench trial and every jury trial that has taken place in all patent cases in the last seventeen years in every district court. It consists of a defined population of 1409 cases comprising 1943 separate claims. This is the entire population of patent trials, not a sample study that chooses a limited number of trials and not only reported trials. There were 1409 patent cases that made it to trial, but only 1207 were actually resolved after trial by the fact finder. The other 202 were either settled during trial, or the court ruled on directed verdict or judgment as a matter of law prior to resolution by the fact finder.

In the next Subpart, I analyze these data to highlight which districts are selected most often by plaintiffs for patent suits and explore the speed of resolution, the stage of resolution, and the resolution mechanism. For each of these issues, I consider whether resolution differs by region. I also examine who selects forum to determine whether choice significantly impacts outcome.

A. Where the Patent Cases Are Brought

A preliminary approach to determining how much forum shopping exists is to examine whether patent cases are equally dispersed among the country's ninety-four district courts or largely consolidated in a few regions. The ten jurisdictions with the largest number of patent cases resolved between 1995 and 1999 are contained in Table 1.

Table 1: Civil and Patent Caseloads from 1995–1999

	District	# of patent cases	% of all patent cases	% of all civil cases[54]	Ratio of patent cases to civil cases
1	C.D. Cal.	870	9.1	4.2	2.2
2	N.D. Cal.	606	6.3	2.3	2.7
3	N.D. Ill.	569	5.9	3.4	1.7
4	S.D.N.Y.	394	4.1	4.1	1.0
5	D. Mass.	319	3.3	1.4	2.4
6	D. Del.	308	3.2	0.3	10.7
7	S.D. Fla.	302	3.1	2.5	1.2

54. The data in this column are derived from the Administrative Office annual reports. 1999 ADMIN. OFF. U.S. CTS. ANN. REP., at Table C (1995 to 1999) (on file with the North Carolina Law Review).

8	E.D. Va.	288	3.0	1.7	1.8
9	D.N.J.	286	3.0	2.6	1.2
10	D. Minn.	276	2.9	1.0	2.9

These data indicate that most patent cases are brought in only a handful of jurisdictions. As Table 1 reflects, these regions do not have more patent cases simply by virtue of the fact that they have larger dockets in general. The top five district courts have 29% of all patent cases terminated in the ninety-four district courts during this five-year period, but only 15% of all civil case terminations during the same period. The top ten jurisdictions combined have 44% of all patent cases terminated, but only 23.5% of all civil cases terminated. The case distribution in a district like the Southern District of New York, which had 4.1% of all patent terminations from 1995 to 1999 and 4.1% of all civil case terminations from 1995 to 1999, does not raise any red flags. The ratio of patent cases to civil cases is 1.0. However, jurisdictions like Delaware, Massachusetts, the Northern and Central Districts of California, the Eastern District of Virginia, the Northern District of Illinois, and Minnesota, where there are sizeable differences between civil case terminations and patent case terminations, raise questions. Each of these jurisdictions handles a much higher percentage of the nationwide patent caseload than they do of all civil cases.

Because the size of the dockets does not adequately explain the consolidation of patent cases in particular districts, there must be a perceived or real difference between these jurisdictions and others that explains the higher number of patent case filings. It could be that these jurisdictions contain clusters of high-tech industries; certainly this could be true for the Northern District of California, which is home to Silicon Valley. Perhaps increased technological wealth and thriving industry translate into more patents and therefore more patent disputes. To evaluate this hypothesis, Table 2 shows the number of patents granted in each state from 1995 to 1999.[55]

55. The data for this table (excluding the last column) were derived from the USPTO Web site. USPTO, Statistical Reports Available for Viewing, *at* http://www.uspto.gov/web/offices/ac/ido/oeip/taf/tafp.html (last visited Apr. 15, 2001) (listing statistics on patents granted each year) (on file with the North Carolina Law Review).

Table 2: Number of Patents Granted by State from 1995–1999

Ranking by # of Patents Granted	State	# of Patents Granted	% of Patents Granted to U.S. Parties	% of Patent Cases by State[56]
1	California	63,590	18.6	18.7
2	New York	27,099	7.9	7.7
3	Texas	23,825	7.0	6.8
4	New Jersey	16,786	4.9	3.0
5	Illinois	16,486	4.8	6.4
6	Michigan	15,986	4.7	3.6
7	Pennsylvania	15,386	4.5	3.4
8	Ohio	14,382	4.2	3.6
9	Massachusetts	14,122	4.1	3.3
10	Florida	11,511	3.4	5.3
11	Minnesota	10,380	3.0	2.9
21	Virginia	4593	1.3	3.2
32	Delaware	2049	0.6	3.2

The data presented in Table 2 have several shortcomings. First, the United States Patent and Trademark Office (USPTO) data consider the number of patents granted in the entire state and do not break down the state grants by judicial district. For example, California, which is responsible for approximately twice as many patent grants as the next closest state, is composed of four judicial districts. There is no way to determine which of these four districts is responsible for the bulk of the patent grants or whether the grants are equally divided among the four districts.[57] Second, the USPTO classifies the state of patent origin according to the state of residence of the first named inventor. This classification may not accurately reflect the state of origin of the technology, because inventors may be listed in any order, alphabetical or otherwise. Moreover, these data do not reflect the assignee's location, and it is the assignee rather than the individual inventors that generally brings a lawsuit to enforce the patent.[58] Finally, it could be that the location of the

56. This data includes all patent case terminations in all judicial districts within a particular state.

57. This is not a problem when analyzing single-district states like Delaware and Massachusetts.

58. Researching the principal place of business or headquarters of the parties involved in the

companies bringing patent infringement suits does not correspond to the states where they bring suit despite similar patent grant and case data. For example, a Massachusetts company could bring suit in New York, and a New York company could bring suit in Massachusetts.

Despite these shortcomings, Table 2 does suggest that more patent cases may be filed in some jurisdictions because they simply have more technology as reflected in patent grants. This holds true for California districts which comprise 18.7% of all patent case terminations (C.D. Cal. (9.1%), N.D. Cal. (6.3%), E.D. Cal. (.7%), and S.D. Cal. (2.6%)) and 18.6% of all patents granted during the same time period. Similarly, New York, Texas, and Minnesota patent case percentages approximate their national patent grant percentages.[59] These data suggest that at least in these jurisdictions, high patent case filings correlate to clusters of high tech industry. In these regions, parties may bring their lawsuits on their own turf because they perceive a home-field advantage or because the jurisdiction is simply the most convenient forum in which to litigate their dispute.[60]

For jurisdictions such as Virginia and Delaware, the presence of patent seeking companies within their borders does not explain the high number of patent cases filed. Delaware is sixth in terms of the number of patent cases terminated with 3.2% of the total patent cases, yet it is thirty-second among the fifty states in terms of patents granted (0.6%) during the same time period. Virginia is eighth in patent cases (3.2%) but twenty-first in patent grants (1.3%). In short, these regions are not selected because they have clusters of high technology within their borders. Although patent grant data may indicate that in some jurisdictions clusters of patent seeking companies could be responsible for the high percentages of patent cases filed, in other jurisdictions forum shopping is based upon less obvious factors.

This evidence indicates that the location of the manufacturing facility no longer dictates forum and that with increasingly national commerce plaintiffs have a virtually limitless choice of forum. In those regions with a

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lawsuit would likely be a more accurate way of assessing whether individual parties are engaging in forum shopping that reflect a selection based on home-field advantage.

59. As discussed above, there is no difference, however, between the percent of patent filings in the Southern District of New York and the percent of civil filings generally. It is possible that the Southern District of New York's patent case percentage is consistent with its civil docket generally and also consistent with the quantity of technology as measured by patent grants.

60. These conclusions are subject to the caveats discussed above with regard to the shortcomings of the USPTO data and, in particular, the fact that state of origin of the first named inventor may not reflect the location of the party who owns the patent and brings the suit. *See supra* note 51 and accompanying text.

higher concentration of industry, companies might perceive a home-field advantage or perceive the judges or juries in these regions to be favorable. Some forums are selected for convenience of trial counsel. Cases are being filed in these regions not because of limiting jurisdiction and venue options, but rather because plaintiffs (which are predominantly patent holders) prefer these regions for some reason. In the following Subparts, I examine the procedural and substantive differences in adjudication of patent cases to ascertain whether the data can provide any explanation for forum selection.

B. *Procedural Variations: How Patent Cases Are Resolved by District Courts*

It is indisputable that there are procedural differences in how various district courts handle patent cases. For example, the Northern District of California has individual procedural rules regarding patent cases, which were adopted to unify and streamline procedures for adjudicating patent cases in that jurisdiction.[61] These rules apply to both patent infringement actions and declaratory judgment actions brought by the accused infringer.[62] Other jurisdictions, like the District of Delaware, have uniform jury instructions for patent cases in order to eliminate substantive difficulties that may arise in jury instructions. Standard district court rules and jury instructions undoubtedly help reduce some variation in adjudication within the district, but because the application of these rules is limited to the individual district, they do not decrease forum shopping between districts.[63] This Subpart examines whether there is regional variation in the speed with which districts adjudicate patent cases and the way in which these cases are resolved.

1. Speed of Adjudication

Speed of adjudication is an important factor in selecting a forum. Quick resolution may be preferable for several reasons. It limits the amount of time the defendant has to prepare for trial and therefore impacts its ability to mount a defense.[64] It also limits the litigation expenses

61. N.D. CAL. CIV. P. 16-7(a) to -8; *see also* Austrian & Mohler, *supra* note 48, at 232–35 (discussing Northern District of California rules for patent cases).

62. N.D. CAL. CIV. P. 16-7(a) to -8.

63. *Cf.* Donald Dunner & Gerald Mossinghoff, *Increasing Certainty in Patent Litigation: The Need for Federal Circuit Approved Pattern Jury Instructions*, 10 FED. CIR. B.J. 273 (2000) (arguing that the Federal Circuit should issue standard patent jury instructions to increase consistency and certainty in patent cases).

64. For example, the defendant will have less time to "scorch the earth" seeking potentially invalidating prior art.

associated with the case. A case that is resolved in 0.43 years may be less expensive than one that lingers on for 1.5 years.[65] Expedient resolution may also be particularly important to the patent holder in order to obtain a speedy injunction to prevent further infringement, to halt price erosion, and to preserve market share.[66] Hence, plaintiffs may prefer to file in district courts with a track record of fast resolution.

The mean time for resolution of all 9615 patent cases filed in the district courts from 1995 to 1999 is 1.12 years. Tables 3 and 4 list the quickest and slowest districts for resolving patent cases from 1995 to 1999. The length of the lawsuit is measured from the filing date of the complaint to the final resolution of the case.

Table 3: Quickest Judicial Districts with at Least 50 Cases

District	# of Cases	Mean # of Years
E.D. Va.	288	.43
W.D. Wis.	105	.60
E.D. La.	53	.75
E.D. Pa.	205	.76
W.D. Wash.	180	.77

65. Of course, the parties could have more people work on the shorter case or spend more time on it, then the litigation expenses could be the same as the case lasting one and a half years.

66. George F. Pappas & Robert G. Sterne, *Patent Litigation in the Eastern District of Virginia*, 35 IDEA 361, 363 (1995).

Table 4: Slowest Judicial Districts with at least 50 Cases

District	# of Cases	Mean # of Years
W.D.N.Y.	75	1.97
W.D. Pa.	93	1.60
N.D.N.Y.	61	1.59
D. Conn.	149	1.53
S.D. Ind.	87	1.47

Three of the five fastest districts are districts in the "top twenty" in terms of number of patent cases, and none of the five slowest districts hit the top twenty. Causation is unclear. Perhaps plaintiffs in patent cases gravitate towards districts known for faster resolution, or it could be that with exposure to more patent cases particular districts become more efficient at resolving these types of cases. This theory may explain why the Eastern District of Virginia has 3% of all patent terminations, despite having only 1.7% of all civil litigation. Patent holders prefer the "Rocket Docket" for filing patent infringement suits. This theory also explains the high number of patent cases transferred from the Eastern District of Virginia (16%).[67] In fact, in many cases that are transferred from Virginia the plaintiff explicitly argues that its choice of Virginia was based at least in part on the efficiency of Virginia's docket.[68] However, plaintiffs' collective enthusiasm for Delaware and Massachusetts, both slow districts, remains unexplained.

2. Procedural Progress at Termination

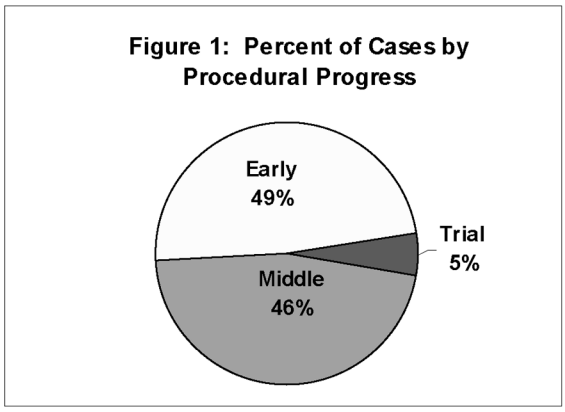
I examined the Administrative Office database to ascertain at what litigation stage patent cases are normally resolved.[69] The database of all patent cases terminated from 1995 to 1999 includes information on how far the case proceeded at the time judgment was entered. I grouped these codes into "early," "middle" and "trial." "Early" indicates that the case was terminated before any significant court action. "Trial" indicates that the case was terminated during or after a trial began. "Middle" includes all

67. *See* Table 7 *infra*.

68. *See, e.g.*, Acterna v. Adtech, Inc., 129 F. Supp. 2d 936, 937 (2001).

69. I am relying on the reportings from the district court to the Administrative Office regarding procedural termination mechanisms. I have not independently verified the 9615 cases reported with regard to whether the Administrate Office data accurately reported their procedural dispositions.

other termination times (after motion, after hearing, after pre-trial conference, etc.). As Figure 1 shows, few patent cases are resolved during or after trial; most patent cases are resolved prior to trial.

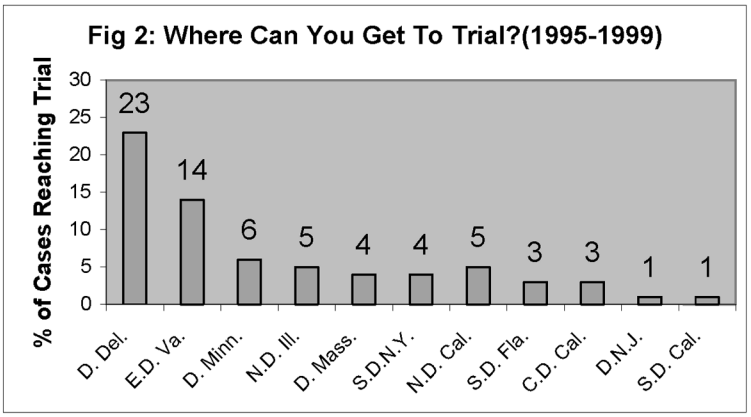


It is helpful to compare Figure 1 with similar data for individual districts to determine how much variation exists regionally. This variation does not explain why more cases are filed in the top ten jurisdictions because, as Figure 2 demonstrates, there is considerable regional variation among these courts regarding chances of getting to trial.[70] Hence, if the plaintiff's goal is to get to trial rather than have the case forced into settlement or be resolved on summary judgment, Delaware[71] or Virginia would be preferable regions. Table 5 shows the procedural stage at which the top ten jurisdictions resolve patent cases.

70. This figure measures cases that went to trial—not the number of claims or issues that were ultimately tried by a fact finder. Some cases that make it to trial are actually resolved during trial by dispositive motion or settled on the courtroom steps prior to a verdict by the fact finder.

71. Curiously, among the top jurisdictions, Delaware has the highest percentage of cases going to trial. Delaware judges (there are only four active district court judges) have a lot of exposure to and familiarity with patent cases. Under such circumstances, one might think judges with this experience might be more inclined to resolve cases by dispositive motion.

Perhaps Delaware has such a high percentage of patent case filings precisely because there are only four active district court judges—the "better the devil you know" theory. Attorneys may simply feel more comfortable filing in Delaware because of their familiarity with the judges and their practices in patent cases.



As Table 5 indicates, the top five jurisdictions (in terms of number of patent cases) generally resolve cases earlier (i.e., no court action) than the national average (49% early resolution). In fact, the Northern District of California resolves 70% of all patent cases early as compared with Minnesota's 34% and Delaware's 31%.[72] Very few cases in the top five districts see the inside of the courtroom. Patent holders may prefer regions with a history of early resolution of patent disputes both because of the transaction cost advantages and because these jurisdictions are less likely to threaten the continued validity and enforceability of their patent rights. If jurisdictions with high percentages of early case resolution are forcing more settlements than other regions, risk averse patent holders may gravitate towards these forums, as they would be safe havens for their patents.

72. It is interesting to note the stark contrast between the District of Delaware, with its 23% trial rate, and its geographic neighbor, the District of New Jersey, with its 1% trial rate. Clearly geographic location does not explain procedural resolution mechanisms.

Table 5: Procedural Stage of Resolution

District	Early	Middle	Trial
C.D. Cal.	70%	27%	3%
N.D. Cal.	71%	44%	5%
N.D. Ill.	53%	42%	5%
S.D.N.Y.	63%	33%	4%
D. Mass.	56%	40%	4%
D. Del.	31%	46%	23%
S.D. Fla.	55%	42%	3%
E.D. Va.	44%	42%	14%
D.N.J.	40%	59%	1%
D. Minn.	34%	60%	6%

3. Method of Disposition

The database of all patent cases from 1995 to 1999 also indicates the procedural device used to dispose of the case. Over 83% of the patent case judgments have one of the following codes: consent judgment or settlement, default judgment, transfer or remand (transferred to another district or remanded to a state court), judgment on trial or directed verdict during trial, or judgment on pre-trial motion (such as a Rule 12[73] or Rule 56[74] motion).[75] Figure 3 shows how these methods of disposition appear in the database.

Another way of looking at the disposition method data is to compare dismissals with judgments. Of the 9615 cases, 68% were ultimately dismissed,[76] 6% were remanded or transferred, and 26% were disposed of by entering a judgment.[77]

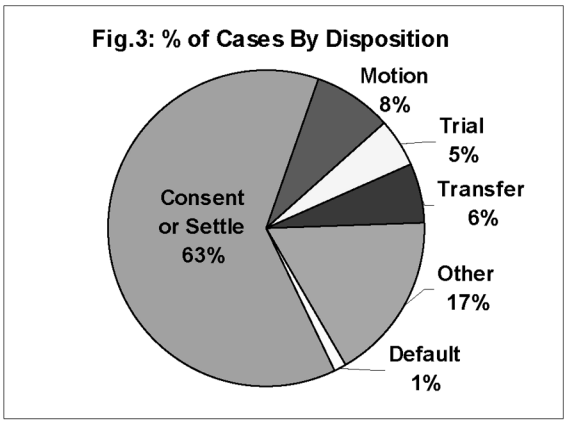
73. FED. R. CIV. P. 12.

74. FED. R. CIV. P. 56.

75. The other judgments bear unusual codes, such as dismissed for want of prosecution, dismissed for other, judgment on other, judgment on stay pending bankruptcy, statistical closing, or award of arbitrator. These codes are excluded from Figure 3.

76. Dismissals include the following codes: want of prosecution, lack of jurisdiction, voluntary, or settlement.

77. Judgment codes include the following dispositions: default, consent, pretrial motion, award of arbitrator, stay pending bankruptcy, jury verdict, court trial, directed verdict, or statistical closing.



The fact that so many patent cases are resolved via settlement, voluntary dismissal, or consent judgment warrants further exploration. Isolating just the 6007 cases (76% of the data set) which were resolved via settlement, Table 6 indicates that if settlement is going to occur, it will usually occur early in the litigation process before the parties have invested a substantial amount of litigation costs.

Table 6: Settlement Data

Procedural Process at Settlement	% of Settled Cases
Before Any Court Action	34%
Mid-litigation	51%
After Pre-trial Conference	14%
During or After Trial	1%

Table 7 contains detailed data on how the top ten jurisdictions varied according to the procedural disposition of the cases.

Table 7: Method of Disposing of Case

District	Consent or Settle	Motion	Judgment at Trial[78]	Transfer	Default
C.D. Cal.	62%	7%	2%	4%	2%
N.D. Cal.	73%	9%	4%	3%	0%
N.D. Ill.	69%	8%	5%	6%	2%
S.D.N.Y.	49%	5%	4%	5%	2%
D. Mass.	60%	4%	3%	3%	0%
D. Del.	45%	2%	15%	7%	0%
S.D. Fla.	50%	7%	2%	5%	1%
E.D. Va.	53%	4%	4%	16%	0%
D.N.J.	68%	5%	1%	6%	0%
D. Minn.	73%	6%	5%	1%	0%

As Table 7 shows, the procedural means of adjudication for the top ten jurisdictions varies by region. Many of the top ten district courts have a high percentage of patent cases resolved via settlement, consent judgment, or voluntary dismissal. Patent holders might prefer regions that force early settlement of their claims, which generally insulate their patents from the possible invalidity and unenforcability that could result from a trial.[79] Patent holders have more at stake than the infringers because, should the case proceed to trial, the patent could be invalidated or rendered unenforceable, which would affect the patent holder's ability to secure damages not only against the infringer involved in the suit, but against all potential infringers in the market. The impact of asymmetrical stakes between litigating parties has been widely studied.[80] When stakes are

78. To the extent that these numbers differ from the trial percentages in Figure 2 and Table 5, it is because these numbers reflect judgments on jury verdicts and court trials. Earlier numbers on how many cases reached the trial stage are accurate, but not all of the cases that reach trial are ultimately resolved on jury or court verdict. Some cases may settle during trial or be resolved on judgment as a matter of law (JMOL).

79. Early disposition may be an effect, rather than a cause, of forum shopping. That is, the deluge of claims has caused the jurisdiction to favor settlements.

80. *See generally* Kathleen Engelmann & Bradford Cornell, *Measuring the Cost of Corporate Litigation: Five Case Studies*, 17 J. LEGAL STUD. 377 (1988) (studying asymmetric stakes); Jeffrey S. Parker, Daubert's *Debut: The Supreme Court, The Economics of Scientific Evidence, and the Adversarial System*, 4 SUP. CT. ECON. REV. 1, 43 47 (1995) (noting that changes in the law of evidence will not alter problems such as asymmetrical stakes); George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 24–25 (1984) (noting that "there are many situations . . . in which the resolution of the dispute affects one of the parties beyond the dollar amount at stake alone"); Joel Waldfogel, *Reconciling*

asymmetrical, the party with more at stake is more likely to desire settlement in close cases and only be willing to proceed to trial in cases in which they have a greater chance of success.[81] This could explain the preference of patent holders who file suit in jurisdictions with a higher than average rate of early settlement. Patent holders may also prefer regions with high rates of settlement in order to acquire a list of licensees for their patent. Licensees indicate industry respect for the patent, which has several benefits. Licenses are evidence of the non-obviousness of the patent claims[82] and are therefore useful if the validity of the patent is challenged. Licenses may also be useful evidence for determining a reasonable royalty rate for patent damages.[83] Finally, a list of licensees may help the patent holder enforce its patent absent the need for litigation. Evidence that competitors capitulated and licensed the patent may make it easier for the patent holder to secure future licenses.

Notice that jurisdictions such as Delaware and the Eastern District of Virginia have very high transfer rates for patent cases. It may well be because of their speed and/or perceived expertise or bias, a greater number of cases with no real link to the jurisdiction are routinely filed there.[84] Such filings are further evidence that plaintiffs forum shop. With transfer generally difficult to obtain because of the deference given to a plaintiff's

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Asymmetric Information and Divergent Expectations Theories of Litigation, 41 J.L. & ECON. 451, 474 (1998) (finding that "information is less asymmetric among the parties proceeding to trial than among the parties to all filed cases").

81. *See* Priest & Klein, *supra* note 80, at 24–25 (noting that when stakes are asymmetrical, such as when one party has a greater interest in precedent than the other, the party with higher stakes is more likely to be victorious in litigation because it is likely to proceed to trial only on cases in which it has a greater chance of winning).

82. *In re* Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998) (holding the existence of licenses should be considered in an obviousness inquiry as it is evidence of industry respect for the patent); Litton Sys., Inc. v. Honeywell, Inc., 87 F.3d 1559, 1569–70 (Fed. Cir. 1996) (noting that objective considerations, such as the existence of licenses, are "invariably relevant" to an obviousness determination).

83. Maxwell v. J. Baker, Inc., 86 F.3d 1098, 1109 (Fed. Cir. 1996) (holding that in assessing damages, royalty rates for other licenses can be considered); Hanson v. Alpine Valley Ski Area, Inc., 718 F.2d 1075, 1078 (Fed. Cir. 1983) (holding that a reasonable royalty damage award may be based on an established royalty amount). Preexisting licensing rates should be a floor on damage awards, not a ceiling, since they are generally the result of voluntary agreement obviating the need for litigation. *See Maxwell*, 86 F.3d at 1109–10 ("The fact that an infringer had to be ordered by a court to pay damages, rather than agreeing to a reasonable royalty, is also relevant.").

84. *See, e.g.*, Acterna v. Adtech, Inc., 129 F. Supp. 2d 936, 937 (2001) (rejecting arguments by the plaintiff that efficiency of the court's docket was a basis for venue when the only other tie to Virginia was sales activity); Wayne L. Stoner, *Rocket Docket: Still an Alternative?*, 572 PLI/Pat 73, 77–79 (1999) (suggesting that the Eastern District of Virginia is increasingly transferring cases to other districts in order to combat filings by parties with little or no connection to the forum who file in Virginia to receive expedited adjudication of their patent claims).

choice of forum,[85] a high number of transferred cases indicates that those cases had virtually no tie to the forum in which they were filed.

C. *Substantive Variation: How Win Rates Differ by District*

All of the analysis for this Subpart is performed on the data set of tried cases from 1983 to 1999 (1409 cases, 1943 claims).[86] In this Subpart, I examine whether patent holder win rates vary by district, which could explain preferences for certain forums, assuming that the parties are aware of these win rate variations.[87]

1. Overall Patent Holder Win Rate by District

Overall, patentees won 58% of all patent suits.[88] These data indicate a statistically significant difference in win rate for the patentee and infringer by suit ($p<.001$). Hence we can reject with 99.9% confidence the null hypothesis that either party (patentee or alleged infringer) has an equal chance of winning a patent lawsuit.[89] How does this overall win rate compare with the win rate in each individual judicial district? Plaintiffs rush to forums in which they think they have the greatest chances of success. The descriptive statistics listed in Table 8 on the ten jurisdictions with the largest number of cases show variation from region to region in patentee win rates. The districts are listed in order from most to least advantageous for the patent holder.

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85. Clermont & Eisenberg, *supra* note 50, at 1529 (reporting that in a study of civil cases, transfer motions occur in less than five percent of cases and they are successful about forty-five percent of the time).

86. The Administrative Office was the origin of the data. I verified and expanded these data to make more detailed findings.

87. Although lawyers and other repeat players in patent litigation may have instincts regarding certain forums, no comprehensive data such as those provided here were available prior to this Article.

88. *See* Moore, *supra* note 51, at 385 (offering possible explanations for the 58% patent holder win rate).

89. The null hypothesis posits "no difference" in outcome or "no relationship" between events. In this case, the null hypothesis would be that "patentees are not more likely to win patent suits than infringers." The p value (also called the significance level) is the probability of rejecting the null hypothesis when it is actually true. Throughout this article, I use the term "significant" in the formal statistical sense indicating that the null hypothesis can be rejected with at least 95% confidence ($p \leq .05$). If $p>.05$, I conclude that observed differences or relationships are not statistically significant; thus, the null hypothesis cannot be rejected in these cases. I have tested these null hypotheses using Chi-Square p values (the "Pearson statistic").

Table 8: Win Rate Distribution

District	# of Patents[90]	Patentee Wins	Infringer Wins	ß	Std. Error	P
N.D. Cal.	82	68%	32%	-.120	.057	.034
D. Minn.	48	67%	33%	-.104	.073	.154
C.D. Cal.	96	63%	37%	.062	.053	.238
S.D.N.Y.	48	63%	37%	.062	.073	.393
S.D. Fla.	24	63%	37%	.062	.102	.541
D.N.J.	23	61%	39%	.046	.104	.659
E.D. Va.	40	58%	42%	-.0123	.080	.878
N.D. Ill.	113	48%	52%	.085	.049	.083
D. Del.	142	46%	54%	.105	.044	.018
D. Mass.	50	30%	70%	.263	.072	.000

A regression model limited to the top ten jurisdictions demonstrates significant difference in outcome (patent holder win rate) among these districts.[91] Stated another way, there is not an equal chance of winning in these ten jurisdictions. There is also significant difference in outcome when you compare the mean win rate of all districts with the mean win rate of three of these individual districts. As Table 8 shows, the District of Massachusetts, the District of Delaware, and the Northern District of California differ significantly from the mean patent holder win rate ($p<.05$). If patent holders knew this information, it could explain why parties select these districts with greater frequency than other districts. At least this may be true for the Northern District of California, which in addition to being a locus of high-tech companies, has a significantly higher win rate for patent holders. However, because patent suits are predominantly filed by the patent holder,[92] the significantly lower-than-average win rate for patent holders in Delaware and Massachusetts raises the question: why are these two districts seeing such a high volume of patent cases?

It is interesting that the District of Delaware is among the least favorable for patent holders because Delaware's patent caseload far exceeded its percentage equivalent of civil cases generally. Delaware has

90. The number of patents in each district varies from the total number of patents that went to trial because the total number reflects some cases which were disposed of after a trial began by means other than a verdict by the fact finder. Some of the claims were settled or a verdict was directed by judgment as a matter of law.

91. $F=3.355$, $p=.000$. The hypothesis that the district dummy variables are jointly zero can be rejected. This means that there is significant variation in outcome among these ten districts.

92. *See supra* notes 73–88 and accompanying text.

3.2% of all patent cases nationally, but only 0.3% of all civil cases. Patent holders file 86% of all patent cases,[93] and Delaware is home to ten times more patent cases than its civil docket would predict. Thus, either patent holders are selecting Delaware simply for its convenience (an unlikely answer in light of the size of the state and dearth of industry headquartered there) or patent holders are inaccurately perceiving Delaware to be more favorable to them than it is.

2. Win Rate by Substantive Issue by District

Table 9 categorizes the overall win rate by substantive issue.

Table 9: Patent Holder Win Rate by Issue

Issue	Verdict for Patent Holder
Validity[94]	67% (1140)
Enforceability[95]	73% (528)
Infringement	66% (1352)
Willfulness	64% (542)

Table 10 shows the statistical variation among regions on resolution of these issues.

Table 10: Percentage and Number of Verdicts for Patent Holder

District	Validity	Enforceability	Infringement	Willfulness
C.D. Cal.	61% (62)	62% (42)	74% (73)	67% (39)
N.D. Ill.	61% (74)	61% (36)	66% (87)	85% (27)
N.D. Cal.	68% (53)	78% (18)	75% (68)	59% (22)

93. *See infra* note 101 and accompanying text.

94. Validity of an issued patent might be challenged by the accused infringer. There are a variety of grounds upon which validity could be challenged, including novelty, non-obviousness, or failure to satisfy the enablement, best mode, or written description requirements.

95. Enforceability of an issued patent might be challenged by the accused infringer. There are a variety of grounds upon which a patent may be found unenforceable, including inequitable conduct, laches, equitable estoppel, or patent misuse.

S.D.N.Y.	73% (37)	67% (12)	73% (33)	80% (15)
D. Del.	53% (109)	70% (54)	55% (120)	61% (38)
E.D. Va.	74% (34)	100% (7)	72% (32)	69% (13)
D. Minn.	66% (35)	88% (16)	70% (46)	63% (16)
D. Mass.	44% (32)	56% (9)	45% (40)	42% (12)
S.D. Fla.	86% (14)	86% (7)	68% (25)	67% (12)
D.N.J.	75% (16)	83% (6)	65% (17)	67% (3)

Table 10 shows significant variation among the ten judicial districts with regard to the issues of validity[96] and infringement.[97] Hence, the null hypothesis that a patent holder has no greater chance of winning on infringement or validity in these judicial districts can be rejected with confidence. Although some individual variation exists among districts with regard to enforceability and willfulness, as seen in Table 10, the variation is not statistically significant.[98]

The descriptive statistics and regression results presented thus far demonstrate both procedural and substantive variation among the most frequently selected district courts in their resolution of patent cases. This variation suggests that there may be no single explanation of patent holders' selection of particular jurisdictions. Not all of the frequently selected jurisdictions are fast, not all are locations of high technology, not all are more favorable to patent holders, and not all force early resolution of patent cases. It is likely that some combination of factors led parties to select particular jurisdictions; in short, the choice of forum is a multi-dimensional inquiry. Perhaps the best way to test the impact the choice of forum may have on outcome is to consider the difference in outcome or the effect of outcome on choice when the forum is selected by the patent holder or the accused infringer. The next Subpart will present the comparison between infringement suit outcome and declaratory judgment suit outcome.

D. Declaratory Judgment Actions vs. Infringement Suits: Choice of Forums Has a Significant Impact on Outcome

There is a perception that the infringer will achieve an advantage by filing a declaratory judgment action against the patentee, rather than waiting for the patentee to file an infringement suit.[99] By filing the

96. F=2.784, p=.002.

97. F=2.024, p=.028.

98. This means that I cannot reject the null hypothesis that there is no variation in outcome with regard to enforceability among these ten districts. F=1.323, p=.215. Similarly, I cannot reject the null hypothesis that there is no variation in outcome of willfulness among these ten districts. F=1.092, p=.366.

99. *See* Weide, *supra* note 12, at 177–78. Professors Clermont and Eisenberg studied the

declaratory judgment action, the infringer chooses the forum (the one it thinks most favorable to it) and the time that the suit will begin (enabling it to surprise the patentee and force litigation before the patentee might be ready). The empirical evidence substantiates the advantage forum selection has to the parties. In cases in which the defendant was able to choose the forum (as with declaratory judgment actions) rather than the patent holder (as in infringement suits), there was a significant difference in outcome:[100] the defendant is much more likely to win when it selects the forum.

Of the 1209 cases in the data set of tried cases, 14% (168 cases) were declaratory judgment actions brought by the infringer.[101] Of the 1676 separate claims, 15% were declaratory judgment claims. As Figure 4 indicates, the declaratory judgment tool does affect the outcome of each individual issue except willfulness, in which there is no significant difference in outcome between infringement suits and declaratory judgment suits.[102] Who selects the forum (patentee or alleged infringer) is a statistically significant predictor of who wins patent claims.[103] When the patent holder selects the forum, the patent holder wins 58% of the claims.

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difference in outcome across all civil cases in which the plaintiff received its choice of forum versus suits that were transferred by the defendant. They discovered a significant difference in plaintiff win rate: 58% in forums selected by the plaintiff and 29% percent in forums where the case had been transferred. Clermont & Eisenberg, *supra* note 50, at 1511–12. They concluded that the transfer option might undo abusive forum selection by plaintiffs and act as a deterrent, thereby encouraging appropriate forum selection in the first instance. *Id.* at 1511. They also suggest that transfers level the playing field, neutralizing any lopsided cost advantage the plaintiff may attempt to secure. Cases are transferred, according to Professors Clermont and Eisenberg, only when the court decides that forum really would matter. *Id.* at 1515. My study differs from theirs in several ways. First, my data set is limited to patent cases, rather than all civil cases, and includes more recent data. Second, I examine every individual case and study the individual issues decided rather than just the overall outcome. Third, I independently verify all the results in the data set in which I studied outcome rather than simply relying on the Administrative Office data, which I found to be inaccurate in many instances. Fourth, I study the difference in win rates between patent infringement suits brought by the patent holder and declaratory judgment actions brought by the accused infringer. This difference should elucidate the forum selection impact even more acutely.

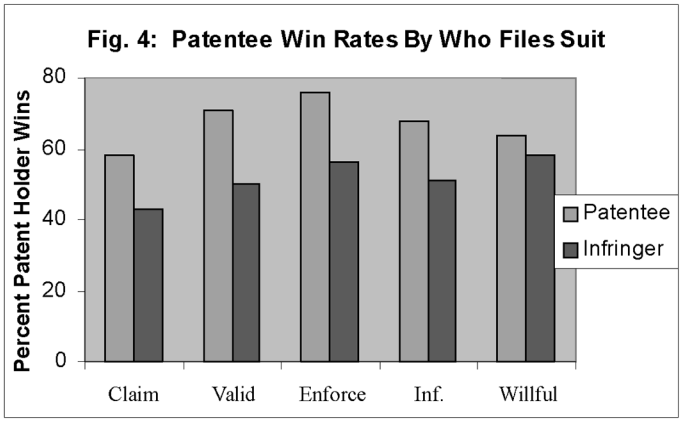
100. $\beta = 0.125$, $t=3.063$, $p=.002$. These results from a linear regression model indicate a statistically significant difference ($p \leq .05$) in win rate based upon who filed the suit. In this regression model, who won (patent holder or infringer) was the dependent variable and who filed suit (patent holder or infringer) was the independent variable. A $p=.002$ allows us to reject the null hypothesis of no difference with 99% confidence ($p \leq .01$). The coefficient, β, gives the magnitude in percentage points of the difference in win rate. With $\beta=0.125$, there is a 12.5% difference in outcome based on who filed suit. For example, the patent holder won 60.1% of all patent cases when it filed suit and 47.6% of all patent cases in which the infringer filed suit—a 12.5 percentage point difference.

101. A case is considered a declaratory judgment action if the infringer filed the suit. These statistics do not include counterclaim declaratory judgment actions.

102. For a more detailed analysis of the distinction between infringement suits and declaratory judgment actions, see Moore, *supra* note 51, at 404–07.

103. $\beta=.141$, $t=4.106$, $p=.000$.

When the accused infringer brings a declaratory judgment action and thereby chooses the forum, the patent holder win rate drops to 44%.



The applicable law does not change from one forum to the next, but the win rate drops significantly. Who selects the forum is also a statistically significant predictor of validity,[104] enforceability,[105] and infringement,[106] but not willfulness.[107] The most likely explanation for the declaratory judgment effect is that forum and timing really do matter.

The best alternative explanation is that declaratory judgment suits, as a whole, are stronger suits on the merits for the accused infringers. The theory is that accused infringers would initiate litigation only in cases they think they should win. Such a theory might be verifiable if the empirical results—namely, significantly higher win rate for patent holders in infringement suits rather than declaratory judgment actions—were from a data set of all patent disputes rather than just the set of tried cases. One could determine the percentage of declaratory judgment actions filed and compare their outcome at all stages and all procedural levels with infringement suits. However, in this database, which is limited to tried cases from 1983–1999, economic theory suggests the "stronger" declaratory judgment actions would be resolved by the court at earlier stages of litigation or settled. The selection of cases that would proceed to trial would be close cases where the outcome tends towards 50/50.[108] The

104. ß=-.210, t=-5.628, p=.000.
105. ß=-.207, t=-3.908, p=.000.
106. ß=-.163, t=-4.306, p=.000.
107. ß=-.067, t=-1.00, p=.318.
108. *See generally* Priest & Klein, *supra* note 80 (observing that cases close to the decisional

selection of tried cases is not a random or a representative subset of all disputes.[109]

The selection effect theory is predicated on parties making rational determinations regarding whether to settle or litigate based on economic factors, including the potential gain from a favorable outcome or loss from an adverse decision, the information the parties possess about the likelihood of success at trial,[110] and the transaction costs (litigation costs).[111] According to this model, the disputes that proceed to trial are the cases in which the parties substantially disagree on their chance of success, which is most likely to happen when the case falls close to the governing decision standard (where estimated outcome approaches 50%).[112] When the legal rules or the adjudicator clearly favors one side, economically rational behavior dictates that the parties should settle to avoid transaction costs (or the case may be resolved by the judge on dispositive motion). The cases that proceed to trial will be the difficult or close cases in which the parties are more likely to disagree on predicted outcome. These close cases should fall more or less evenly on both sides of the decisional standard resulting in a 50% win rate.[113]

If the accused infringer has a stronger case on the merits when it brings a declaratory judgment action, then generally those stronger cases will be resolved prior to trial and the cases which do proceed to trial will likely be "close" cases—close as measured by the parties' estimations of outcome. Economic theory suggests that it is not likely that the difference in win rate in *tried* cases may be attributable solely to declaratory

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standard are less likely to settle because of mutual optimism).

109. *See, e.g.*, Theodore Eisenberg, *Litigation Models and Trial Outcomes in Civil Rights and Prisoner Cases*, 77 GEO. L.J. 1567, 1568 (1989) (noting that "expectations theory" suggests that tried cases might not reflect the pool of all disputes); Priest & Klein, *supra* note 80, at 4 (noting that "potential litigants form rational estimates of the likely decisions" and thus "disputes selected for litigation (as opposed to settlement) will constitute neither a random nor representative sample of the set of all disputes"); *see also* KARL N. LLEWELLYN, THE BRAMBLE BUSH: ON OUR LAW AND ITS STUDY 58 (1960) (commenting that litigated cases bear the same relationship to the underlying pool of disputes "as does homicidal mania or sleeping sickness, to our normal life").

110. The selection effect model allows for "divergent expectations" of the parties in estimating outcome. For example, a patent holder may believe that she has a 60% chance of winning the case on the merits, whereas the alleged infringer, with the same information, evaluates the patent holder's chance of success at 40%. Under such circumstances, both parties may be unwilling to settle the case. The selection effect model allows for these self-serving estimation errors, but assumes that the errors are random and based on differences of opinion rather than asymmetrical information.

111. *See* Priest & Klein, *supra* note 80, at 4.

112. *Id.* at 16.

113. There are other economic models (asymmetrical stakes and asymmetrical information models) that could alter the Priest & Klein 50% prediction. *See id.* These models, however, would not explain the variance in win rate for declaratory judgment versus infringement suits.

judgments being stronger cases for the infringer. This element would be factored into litigation strategy and would impact the selection of cases for trial.[114] Hence, the difference in win rate is not likely to be attributable to a factor that can be predicted by the parties as part of their outcome estimations.

In summary, win rates differ significantly between infringement suits and declaratory judgment suits. Patent holders have a significantly higher win rate when they file suit and thereby choose the forum. In contrast, patent holder win rates decline when the accused infringer files suit and thereby selects the forum. These differences in win rate are likely attributable to forum, which suggests that forum critically impacts outcome.

III. PROBLEMS CAUSED BY FORUM SHOPPING

The empirical results show substantive and procedural differences among district courts in resolving patent cases. Such variation causes the parties to spend substantial resources in selecting and fighting over forum. The evils of forum shopping generally revolve around two themes: (1) the notion that forum shopping reflects inequity in the legal system[115] and (2) the premise that forum shopping is inefficient.

A. The Normative Evils of Forum Shopping

The notion that the law ought not be manipulable and that its application ought to be uniform is a fundamental tenet of our legal system. With borderless commerce, the jurisdictional choices are bountiful and the importance of consistency among forums becomes more acute. The intensity of forum shopping by parties suggests that the view of law as immutable is ultimately unfulfillable.[116] The existence of statistical disparities in the empirical results presented substantiates concern over regional variations in patent case resolution. This manipulability of the

114. The notion that alleged infringers fare better in declaratory judgment actions because they are "stronger" cases is further disproved by the difference in win rate before judge and jury. *See* Moore, *supra* note 51, at 368. If declaratory judgment actions are "stronger" suits, then there should be a higher win rate for infringers regardless of the adjudicator. *Id.* The patent holder win rate in jury trials is 68% for infringement suits and 38% for declaratory judgment actions. *Id.* However, the patent holder win rate in bench trials is 49% for infringement suits and 48% for declaratory judgment actions. *Id.* If the stronger suit theory explained the win rate variance then it would be true for both judge and jury trials. The data show, however, that patent holder win rate is not affected by who filed the suit in bench trials. This indicates that the stronger suit theory cannot explain these results.

115. There is a reluctance to acknowledge that outcome can vary by region or adjudicator when the facts and the law are the same.

116. Note, *Forum Shopping Reconsidered*, 103 HARV. L. REV. 1677, 1685–86 (1990).

administration of law thwarts the ideal of neutrality in a system whose objective is to create a level playing field for resolution of disputes.[117] The ultimate result is unpredictability and inconsistency in the application of the law among the district courts. This instability erodes public confidence in the law and its enforcement and creates doubt about the fairness of the system.[118]

B. The Economic Inefficiency of Forum Shopping?

Commentators question the efficiency of forum shopping for several reasons. First, it has been argued that forum shopping overburdens preferred courts with a flood of patent cases.[119] As the data indicate, a few jurisdictions consistently receive a greater number of patent cases, out of proportion with the size of their dockets generally. This suggests that plaintiffs select these forums more consistently over alternate forums because of a perception that these forums are beneficial. This may not, however, actually be inefficient. Because in theory the total number of cases remains constant and the only variable is where the cases are brought, it would be more efficient to have those cases consolidated in discrete courts that could develop patent law expertise. If most patent cases were brought in a few choice jurisdictions (creating a group of patent courts), the judges in those jurisdictions would develop expertise with patent case management and patent law. These judges would be more efficient at resolving patent cases; even though the technology changes from case to case, exposure to the substantive law and its application would increase judicial efficiency. Over time, these judges would establish track records, increasing outcome predictability and decreasing litigation. Hence the status quo, where plaintiffs have limitless venue options, has resulted in the consolidation of patent cases among a few select jurisdictions. In this way, patent holders have effectively created their own specialized courts, which may be a more efficient system of adjudication than an equal division of cases among the ninety-four judicial districts. Maximum efficiency in this respect would be achieved by a single, specialized trial court for patent dispute resolution.

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117. *See* George D. Brown, *The Ideologies of Forum Shopping—Why Doesn't a Conservative Court Protect Defendants?*, 71 N.C. L. REV. 649, 668 (1993). *But see* Robert M. Cover, *The Uses of Jurisdictional Redundancy: Interest, Ideology, and Innovation*, 22 WM. & MARY L. REV. 639, 646 48, 672 80 (1981) (arguing that having many possible forums with concurrent jurisdiction serves the beneficial function of error reduction and results in a fairer and more innovative judicial system).

118. Norwood, *supra* note 29, at 301, 305–07.

119. *See* Note, *supra* note 116, at 1684.

Second, forum shopping wastes resources by increasing litigation costs as parties dispute forum or pursue the most favorable forum, which often is not the closest or most convenient location.[120] There has been some suggestion that existing legal rules, such as personal jurisdiction requirements, venue requirements, transfer of venue options, or the forum non conveniens doctrine mitigate these concerns.[121] This is a naive view of the legal reality, at least insofar as patent cases are concerned. Patent litigation is primarily conducted between corporations. These corporations are subject to personal jurisdiction wherever they sell products, which is increasingly nationwide. There is no venue requirement to speak of, because it devolves into a mere personal jurisdiction inquiry.[122] The judicial doctrine of forum non conveniens is no longer applicable to curb forum shopping among federal forums because it was superseded by the transfer statute.[123] None of these legal rules mitigates the inefficiency caused by litigating patent cases in inconvenient forums. Finally, with regard to transfer motions, resources are wasted in the fight over the proper venue regardless of who ultimately wins. In short, it costs money to fight over forum, and it takes time for the court to handle these transfer motions.[124] If forum were more properly restricted at the outset through venue statutes, as I propose below, the need for transfer motions would be reduced.

Many commentators believe that transfer motions have, apart from their transaction costs, beneficial objectives of convenience and justice and that they have helped level the litigation playing field.[125] More likely, they have merely tilted the playing field in the opposite direction. If initial forum selection presents an extreme inconvenience for the defendant and therefore an unfair advantage for the plaintiff, transfer tilts the advantage

120. *See id.* at 1691 ("Critics of forum shopping claim that it is inefficient because it tends to result in litigation far from the 'natural' forum—the one closest to, most knowledgeable about, or most accessible to the litigants.").

121. *Id.* at 1691.

122. *See supra* notes 24–26 and accompanying text.

123. 28 U.S.C. § 1404(a) (1994 & Supp. IV 1998). The judicial forum non conveniens doctrine is limited to international forum conflicts. Norwood, *supra* note 29, at 318.

124. *See* David P. Currie, *The Federal Courts and the American Law Institute: Part II*, 36 U. CHI. L. REV. 268, 307 (1969) (arguing that resolving factually and legally complex motions to transfer "costs altogether too much time and money"); Edmund W. Kitch, *Section 1404(a) of the Judicial Code: In the Interest of Justice or Injustice?*, 40 IND. L.J. 99, 100–01 (1965) (noting courts' concern over the "impact these petitions might have not only on their own calendars but on the expeditious resolution of the litigation in the district courts"); Rothschild, *supra* note 46, at 41 ("Any lawyer experienced with forum selection battles knows that they can be lengthy, expensive—and uncertain."); David E. Steinberg, *The Motion to Transfer and the Interests of Justice*, 66 NOTRE DAME L. REV. 443, 523 (1990) (stating that the transfer motion is "a cumbersome and costly procedure with few real beneficiaries").

125. *E.g.*, Clermont & Eisenberg, *supra* note 50, at 1515.

towards the defendant. When a motion to transfer is granted, the plaintiff is not given a second chance to select a fairer district; rather, the defendant proposes an alternative district. For example, empirical work by Professors Clermont and Eisenberg has established a dramatic drop in plaintiff win rates from 58% of non-transferred cases to 29% of transferred cases.[126] At least one commentator has argued that transfer motions could help eradicate some of the inequities created by limitless modern venue statutes if transfer motions were more easily obtainable.[127] If transfer motions were easier to obtain, there would, of course, be an increase in transfer motions (thereby increasing wasteful transaction costs) and more cases would ultimately get transferred (undoubtedly delaying final adjudication and increasing transaction costs).[128] Moreover, the increased availability of transfer motions will increase the unpredictability of the forum selection process, thus making it more difficult for the defendant to estimate outcome. It will be especially challenging for the defendant to predict the outcome if it subscribes to the notion that the plaintiff's choice of forums is not the final word on who adjudicates the matter. However, if transfer motions were easier to obtain and the result of transfer was to the forum suggested by the defendant (rather than the plaintiff's second choice of forum), plaintiffs would have an incentive to select a fair, convenient forum ex ante. A more sensible alternative may be to limit forum selection on the front end to eliminate these added transaction costs.

C. *Forum Variation Undermines the Innovation Incentive Underlying Patents*

With the specter of outcome variation, forum shopping increases the unpredictability of the law and its application, in turn increasing the likelihood that parties will litigate.[129] The unpredictability in the legal

126. *Id.* at 1511–12.

127. Norwood, *supra* note 29, at 318–20 (arguing that unjustifiable venue choices could be restrained by eliminating the present practice of giving substantial deference to the plaintiff's choice of forum when considering whether to transfer cases for convenience).

128. Transfers of cases would delay final adjudication due to administrative delay and start-up time for another district to become involved in the case. There would, however, likely be an increase in settlements after successful transfer motions if the parties believe that choice of forum impacts outcome — an avenue for future empirical research.

129. Of course, to the extent that outcome cannot be estimated because of the unpredictability regarding which forum the defendant will be sued in, that unpredictability will cease to exist once the litigation is brought (once a forum is determined). After forum selection, both parties ought to be able to estimate outcome, which would cause settlement at that point. Hence, the end result is an increase in litigation, but once the forum is selected—which luckily occurs early in the litigation process—we ought to see settlement in these cases just as often as in other cases. *See supra* Table 6 (substantiating a high rate of settlement—34% of all cases—prior to any court action).

system created by variation among the district courts intensifies as the number of potential jurisdictions in which to bring suit increases.[130] Unpredictable and inconsistent application of laws traditionally has been a major concern in patent cases and was the impetus for the creation of the Federal Circuit.[131]

Intellectual property rights are thought to be critical in spurring technological innovation.[132] The value of a patent lies in its guarantee of exclusivity, providing the patent owner a defined property right. This value depends on the boundaries of the property right, competitors' respect for those boundaries, and the ability of the patentee to enforce them. If the property owner's ability to enforce her patent is inefficient or unpredictable, the patent's value decreases for the patent owner, competitors, and the public thereby stifling innovation and competition.[133]

Unpredictability or uncertainty in the boundaries of the patent holder's property right and its enforceability will have several ramifications. It will divert resources from innovative efforts (research and development) to enforcement (transaction or litigation costs),[134] decreasing the value of the property right and thereby decreasing its efficacy as a means for promoting innovation. Moreover, uncertainty in the boundaries of the proprietary right will decrease innovation by unpredictably expanding or contracting the patent holder's scope of exclusivity.[135]

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130. Uncertainty exists when parties cannot be sure what legal consequences will attach to their actions. Such uncertainty could include disagreement over the scope of the patent (the property line itself is blurry) or an inability to predict how a jury would draw the line between infringing and non-infringing conduct (an otherwise clearly defined line viewed through a fun house mirror).

131. S. REP. NO. 97-275, at 20 (1981) (Sup. Docs. No. Y1.1/5:97-275).

132. *See* Rebecca S. Eisenberg, *Patents and the Progress of Science: Exclusive Rights and Experimental Use*, 56 U. CHI. L. REV. 1017, 1045 (1989); *see also* King Instruments Corp. v. Perego, 65 F.3d 941, 950 (Fed. Cir. 1995) (noting that the patent system "creates an incentive for innovation").

133. In its report to the Secretary of Commerce, the Advisory Commission on Patent Law Reform warned that the problems associated with the enforcement of patent rights "have the potential to eradicate the basic incentive provided by the patent system" and that the inherent value of the patent right can be realized only if the property owner has effective and inexpensive access to an efficient judicial system. THE ADVISORY COMMISSION ON PATENT LAW REFORM: A REPORT TO THE SECRETARY OF COMMERCE 75 (1992).

134. Many commentators have lamented the increased transaction costs caused by unpredictable, fuzzy, or muddy rules. *E.g.*, Douglas Baird & Thomas Jackson, *Information, Uncertainty, and the Transfer of Property*, 13 J. LEGAL STUD. 299, 312–28 (1984) (favoring sharper, clearer rules); Clifford G. Holderness, *A Legal Foundation for Exchange*, 14 J. LEGAL STUD. 321, 322–36 (1984) (favoring clear, specific definitions because they lower information and transaction costs); Carol M. Rose, *Crystals and Mud in Property Law*, 40 STAN. L. REV. 577, 591 (1988) ("Hard-edged rules define assets and their ownership in such a way that what is bought stays bought and can be safely traded to others, instead of repeatedly being put up for grabs.").

135. The *Markman* Court reasoned:

Two possible scenarios result when the delineation and enforcement of property rights are uncertain: (1) competitors will have less respect for the property right, causing an increase in transaction costs and a decrease in value of the property right as a means for promoting innovation; or (2) competitors will effectively broaden the property right to increase certainty and avoid transaction costs, effectively eliminating competition. When uncertainty in the application of a legal standard exists, parties will either over-comply or under-comply with the legal standard, modifying their behavior more than or less than the law requires.[136]

If uncertainty exists in the application of a legal standard, even parties who normally would behave efficiently will face a greater chance of being held liable because of the unpredictability.[137] The only way that these parties can reduce that chance is by over-complying with the legal rule.[138] Such behavior is inefficient as it will contract industry output and raise prices. For example, if a patent holder has a patent on a product with which a competitor would like to compete and the enforceability of the patent is uncertain in scope, the competitor would likely provide the patent holder with a larger monopoly zone than the patent itself actually entitles. In effect the zone of the patent holder's monopoly, the zone of no competition, would expand beyond what was contemplated by society when the patent was issued. In such a case, if the competitor elects to compete at all with the patented product, it would do so in a less than optimal fashion.

Neither scenario, where the patentee gets a substantially diminished property right or where the patentee gets a substantially expanded property right, will promote innovation.[139] Both modify the system of incentives that exists for securing the patent property right, tipping the careful balance

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> As we noted in *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369 (1938), "[t]he limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public." Otherwise, a "zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims would discourage invention only a little less than unequivocal foreclosure of the field."

Markman v. Westview Instruments, Inc., 517 U.S. 370, 390 (1996) (quoting United Carbon Co. v. Binney & Smith Co., 317 U.S. 228, 236 (1942)).

136. *See* John E. Calfee & Richard Craswell, *Some Effects of Uncertainty on Compliance With Legal Standards*, 70 VA. L. REV. 965, 965–66 (1984) (concluding that socially inefficient overcompliance or undercomplaince results from uncertain legal standards even when the parties are risk neutral).

137. *Id.* at 966.

138. *Id.*

139. *Contra* Ian Ayres & Paul Klemperer, *Limiting Patentees' Market Power Without Reducing Innovation Incentives: The Perverse Benefits of Uncertainty and Non-Injunctive Remedies*, 97 MICH. L. REV. 985, 993–94 (1999) (arguing that constraints on the patentee's monopoly caused by consistent under-compliance may be efficient as it enhances competition).

that has been struck between the patent owner and the public, which ensures competition and tolerates limited monopolies to promote innovation.

The impact of uncertainty in choice of venue is actually more predictably one-sided in favor of the patent holder. In patent cases, generally the patent holder selects venue.[140] Although there is usually unpredictability in permitting choice from among the ninety-four judicial districts, that unpredictability is greatly mitigated in a system in which the choice belongs exclusively to the patent holder. In this system, the defendant may not know which of the ninety-four districts she will be sued in, but because she knows that the patent holder gets to select the district, she can predict that the patent holder will choose the forum most friendly to the patent holder. Hence, infringers will systematically make ex ante product and design decisions in a manner most favorable to the patent holder. The infringer will systematically over-comply with the scope of the patent holder's exclusive right, consistently expanding the property right beyond what was intended when the patent was granted.

Of course, this analysis assumes one-dimensional decision-making by the patent holder and the infringer-defendant; namely, that the defendant believes that the patent holder will always select the district where it is most likely to win the case. As the empirical results suggest, however, patent holders select particular judicial districts for a variety of reasons, including speed of adjudication (e.g., Eastern District of Virginia) or chance of getting to trial (e.g., District of Delaware), and not purely on win rate data.[141] In short, the patent holder's choice of venue is actually a multi-dimensional decision blurring the infringer's ability to predict patent holder venue choices. This uncertainty regarding the patent holder's choice of forum may result in instances of both over- and under-compliance by the competitor rather than only systemic over-compliance.

A trend in modern scholarship rejects the notion that predictability and or certainty may actually be beneficial to the legal system.[142] Some of this

140. Although in some limited circumstances the infringer may be able to select venue by bringing a declaratory judgment action, *infra* notes 32–35, a declaratory judgment action can only be brought against the patent holder when the patent holder places the infringer in reasonable apprehension of being sued. Hence, control in this circumstance remains in the patent holder's hands. *See supra* notes 72 88 and accompanying text. There is also the possibility that the infringer will be successful in getting a case transferred under section 1404. 28 U.S.C. § 1404(a) (1994 & Supp. IV 1998). This could add some uncertainty to the calculus.

141. This assumes that patent holders are actually capable of determining which judicial district would result in the highest chance of winning. The empirical evidence presented in this article may actually assist in such outcome estimation.

142. *See, e.g.*, Ayres & Klemperer, supra note 139, at 986–89 (arguing that "a regime with some uncertainty and delay can produce this [monopoly] reward [for innovation] more efficiently than a regime in which enforcement is instantaneous and certain"). The work of Professors Ayres

scholarship, termed Critical Legal Studies, suggests that "muddy" rules may be preferable for equitable reasons of doing justice in particular cases.[143] As Frank Easterbrook suggested, fairness is an ex post consideration second to the greater productivity associated with the ex ante position,[144] which is particularly true when the unpredictability is in a structural rule rather than a substantive rule. The distinction that I draw is that structural rules, like choice of venue, are rules that decide how a range of future cases ought to be decided. This is not a substantive rule that would be concerned with how a particular case ought to be resolved. Uncertainty in a substantive rule, such as the doctrine of equivalents or obviousness or the reasonableness standard for negligence, may have value to Critical Legal Studies scholars as a means for achieving justice on a case-by-case basis. Uncertainty regarding structural rules, such as choice of venue, does not concern justice between parties, but rather how or where a range of future cases ought to be brought. Hence, predictability in choice of venue rules would increase efficiency by reducing transaction costs and maximizing the innovation incentive behind the patent system without implicating the Critical Legal Studies concerns.

IV. PROPOSALS TO DECREASE FORUM SHOPPING

More research is needed on how to eliminate or decrease forum shopping. In this Subpart, I sketch three possible mechanisms for reducing forum shopping: achieving uniform application of the law by the district courts, creating a specialized trial court to adjudicate patent cases, and creating a more limiting venue statute.

The ideal mechanism for decreasing forum shopping and its associated evils is to eliminate regional disparity in resolution means and outcome. In

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and Klemperer does not affect my analysis of the inefficiency caused by unpredictable choice of venue rules. First, Ayres and Klemperer focus on the efficiency of Type I uncertainty (increasing the chance that valid patents will not be enforced) rather than Type II uncertainty (increasing the chance that invalid patents will be enforced). *Id.* at 987–88. The likely impact of uncertainty in venue choice, since the choice rests predominantly with the patent holder, is over-compliance with the patent holder's exclusive rights—Type II uncertainty. Moreover, Ayres and Klemperer's analysis admits that delay and uncertainty can result in inefficiency, which undermines innovation that must be counterbalanced by extending the patent term. *Id.* at 1001. Increasing the predictability of structural rules pertaining to venue actually will enhance competition without the need to create a case-by-case basis approach to determine whether innovation has been stifled too much, causing the need for specialized and administratively difficult individualized patent term extensions.

143. *See* Rose, *supra* note 134, at 592–93 (stating that the Critical Legal Studies movement believes that muddy rules promote fairness in decision making and citing Duncan Kennedy, who "argues that hard-edged, crystal doctrines systematically abandon people to the wiles of the bad and mean-spirited").

144. Frank H. Easterbrook, *The Supreme Court, 1983 Term—Foreword: The Court and the Economic System*, 98 HARV. L. REV. 4, 11–12 (1984).

short, the task is to eliminate variation in the ways that the district courts resolve patent cases, which is likely impossible. Even with the Federal Circuit dispensing binding substantive legal pronouncements, district court outcomes vary procedurally and substantively in ways that the appellate court cannot regulate. The human element of the administration of justice cannot be eliminated from the legal system.

It is unlikely that uniformity can be imposed in any meaningful way upon the ninety-four district courts and 646 district court judges. Therefore, the only way to eliminate forum shopping is to eliminate the choice. So long as the parties and their advocates have unfettered selection of forum, forum shopping will continue. There are two possibilities for limiting forum shopping: limit forums or limit shopping.

A. Specialized Trial Court

A specialized trial court with exclusive jurisdiction over patent cases could be formed. A specialized tribunal for adjudicating patent cases would be beneficial for several reasons. First, it would eliminate forum shopping entirely, as there would be no possible alternative forum. Second, it would eliminate the inconsistency and unpredictability in patent case resolution that currently exists because of district court variations which would provide better guidance to competitors for primary behavior. Third, a specialized tribunal would develop expertise in patent law and the resolution of patent cases, increasing its accuracy and efficiency at resolving these cases.[145] At the present, the ninety-four district courts with their 646 active district court judges resolve approximately 2000 patent cases each year. As these numbers indicate, individual district court judges are not seeing a sufficient number of patent cases to allow them to develop expertise in resolving these types of highly technical disputes.[146] A single, uniform trial forum would decrease patent litigation overall by making the law and its application more predictable. This would divert resources from wasteful transaction costs to more socially productive research and development. Finally, the creation of a specialized trial court with

145. The forum shopping that presently occurs actually helps to create a subset of district courts with more specialization in patent disputes as plaintiffs consistently select a group of district courts with great frequency. *See supra* notes 57–60 and accompanying text.

146. One caveat: as previously mentioned, many of the patent cases are consolidated in a few select district courts. *See supra* Table 1 and accompanying text. Hence, the 2000 patent cases filed are not divided evenly among the district courts and the 646 judges. Furthermore, senior judges can also preside over patent cases, increasing the pool of potential adjudicators beyond 646. Finally, as previously mentioned, many of the 2000 patent cases filed actually settle early in the litigation process, *see supra* Figure 3 and accompanying text, and only about 100 each year are tried, meaning that very few district court judges are actually gaining significant experience with these cases.

exclusive jurisdiction over patent cases would decrease the clogged dockets of the district courts, removing what are among the most complex cases on their dockets. Table 12 demonstrates that patent cases average only 0.57% of the annual civil caseload in the district courts. These cases represent a much larger percentage, 9.4%, of all civil cases, which required a trial of twenty or more days. Although patent cases are not a large percentage of the docket for a district court, they are among the most time consuming.

Table 12: Complexity of Patent Cases

Year	% of Civil Case Load	% of Cases Requiring 20+ Days of Trial
1983	0.44	8.9
1984	0.41	2.8
1985	0.37	9.8
1986	0.41	8.6
1987	0.43	11.4
1988	0.47	11.2
1989	0.53	8.2
1990	0.52	13.1
1991	0.52	9.5
1992	0.57	13
1993	0.65	8.7
1994	0.66	10.4
1995	0.66	7.8
1996	0.68	6.3
1997	0.73	6.5
1998	0.78	13.9
1999	0.80	8.9

As these statistics indicate, patent cases are more complex than the mass of civil case filings. It is unlikely that many district court judges would complain about taking patent cases off their dockets.[147] Although this alternative has many benefits, it is unlikely that Congress will act in the immediate future to create such a specialized court. Despite the widely

147. One district court judge described patent cases as follows: "Honest to God, I don't see how you could try a patent matter to a jury. Goodness, I've gotten involved in a few of these things. It's like somebody hit you between your eyes with a four-by-four. It's factually so complicated." *Judicial Panel Discussion on Science and the Law*, 25 CONN. L. REV. 1127, 1145 (1993) (statement of Judge Covello, U.S. District Judge, District of Connecticut).

perceived success of the Federal Circuit, Congress is generally adverse to the notion of specialized courts.[148]

B. Limiting Venue by Statute

The second way in which forum shopping could be minimized is to eliminate choice, which could easily be accomplished by tightening the patent venue requirements.[149] A more restrictive venue statute would limit the forums in which the defendant could be sued to a finite number based on defendant's residence and state of incorporation (both of which are controllable by the defendant). Such a limitation would reduce the plaintiff's ability to drag defendants to an inconvenient forum, thereby increasing transactions costs (at least for the defendant). It would also eliminate much of the existing fighting over transfer motions. Such a proposal, however, would disperse patent infringement filings throughout the judicial districts. Though this would reduce the clogged dockets of the now frequently targeted districts, it would also reduce the efficiency created by the current consolidation of cases in a handful of districts. As discussed above, repeatedly exposing judges to the same sorts of claims undoubtedly causes some efficiency.[150] Under the present unrestricted venue laws, a cluster of courts has evolved which deal with the majority of patent suits. Some of this consolidation and its ancillary efficiency may be lost by restricting venue.

Despite the potential loss of some efficiency in patent case resolution resulting from the current consolidation of cases among a few select districts, limiting venue would increase certainty and predictability for the parties. Although such a proposal would in no way reduce the inconsistency or lack of uniformity incident to having multiple decision makers, it would increase predictability and provide the public with better guidance for primary behavior in much the same way a single specialized court would. By limiting the number of jurisdictions where the defendant can be sued to a manageable number, the defendant will be better equipped to decide at the outset the boundaries of permissible behavior because it will be better able to estimate the outcome of its actions. Presently, corporate infringers may be sued in virtually any judicial district. Because

148. *See generally* Randall R. Rader, *Specialized Courts: The Legislative Response*, 40 AM. U. L. REV. 1003 (1991) (suggesting that specialized courts have fallen out of favor with Congress). Specialized courts have been criticized because of the potential for "capture by the bar" and the elimination of percolation incident to not having a plethora of courts simultaneously considering and deciding similar issues. *See* Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 3–4 (1989) (discussing commentators' criticisms of specialized courts).

149. 28 U.S.C. § 1400 (1994 and Supp. IV 1998).

150. *See supra* notes 119–20 and accompanying text.

of the variations in district court resolution of patent cases, these potential infringers are unable to predict to any degree of certainty the legal consequences of their behavior. They are less able to estimate outcome, which critically impacts their ability to control primary behavior in a way that limits potential liability. This inability causes the under- and over-compliance discussed above.[151]

One might argue that limiting jurisdiction to a small, finite number of districts, such as two (state of incorporation or principle place of business for example),[152] could actually increase uncertainty. For example, suppose the two possible jurisdictions do not have legal precedent on the legal standard at issue in the case or that the precedent itself is uncertain. This system could create more uncertainty than a system which gave the patent holder a choice of ninety-four judicial districts because in such a system we can predict that the patent holder would select a district in which the legal standard at issue in the case is not only clear, but favorable. This would provide more certainty to the competitor who is trying to make legally rational business decisions ex ante. When, however, the patent holder's venue choice is multi-dimensional—i.e., based upon a variety of factors not just win rate data—the choice of ninety-four districts creates more ex ante uncertainty.

Limiting venue would reduce forum shopping, but it would not alleviate the variation that exists in district court resolution. This proposal would increase certainty and predictability not by making the law more uniform but by limiting the choice of where to enforce patent rights. Hence, the same lack of confidence in the fair administration of justice that currently results from the inconsistent and unpredictable patent case adjudication in the district courts will continue to exist.

This recommendation stems from the underlying purpose of the venue statute, which has been gutted by current statutory interpretations. Venue requirements were designed to be separate and distinct from personal jurisdiction.[153] The traditional purposes of venue requirements include providing the litigants with a convenient forum in which to resolve their dispute (protecting the defendant from being forced to litigate in an inconvenient forum selected by the plaintiff) and ultimately prohibiting plaintiffs from unrestrained forum shopping.[154]

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151. *See supra* notes 136–38 and accompanying text.

152. Of course, such a rule could have its own underlying fuzziness. For example, how a judge determines where a company's principle place of business is located is not a bright line rule.

153. *See supra* notes 10–19 (discussing traditional personal jurisdiction and venue requirements).

154. *See* William C. Johnson, Note, *The New Rule for Patent Venue for Corporate*

The systematic expansion of the patent venue statute through the years has rendered it superfluous.[155] Because venue requirements now devolve solely to an inquiry of whether requirements of personal jurisdiction have been met, there is no effective venue statute. By enacting a more limiting patent venue statute or interpreting the existing patent venue statute as limited to place of incorporation and principle place of business, much forum shopping could be eliminated. Congress enacted a more limiting patent venue statute intentionally, but now the patent venue statute is applied in the identical manner as the general venue statute for corporate defendants.[156] What then is the purpose of the separate and distinct patent venue statute? Under the current legal interpretation, not much.[157]

If the statute were to limit the districts where a patent holder could subject accused infringers to litigation, those infringers would have better guidance for primary behavior. Eliminating some of the incoherence in the application of the law and thereby increasing the ability of the parties to estimate outcome will decrease litigation. Limiting venue statutes based on convenience principles will also eliminate the wasteful transaction costs associated with litigating cases in a distant forum and reduce costly battles over forum selection.[158] A modification of the patent venue statute to restore some significance to its separate existence could achieve this result with minimal upheaval.

CONCLUSION

Forum shopping is alive and well in patent litigation. Borderless commerce and lax jurisdiction and venue requirements give plaintiffs in patent cases an unfettered choice of where to bring suit. This Article uses empirical evidence to verify significant selection of certain forums with

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Defendants: Kansas Was Never Like This, 11 PACE L. REV. 667, 669 (1991).

155. *See supra* notes 19–25 and accompanying text.

156. *See supra* notes 14–27 and accompanying text.

157. The current regime is an abrogation of the canons of statutory construction, for the current interpretation does not give full effect to the patent venue statute.

158. Of course, restoring some limiting effect to the separate patent venue statute would apply only to infringement suits. Declaratory judgment actions brought by accused infringers would fall under the general venue statute. 28 U.S.C. § 1391(b) (1994); *see also* Charles S. Ryan, The Expansion of Patent Venue Under the Judicial Improvements and Access to Justice Act, 77 J. PAT. & TRADEMARK OFF. SOC'Y 187, 208 (1995) (noting that declaratory judgment suits involving patents fall under the general venue statute rather than the patent venue statute). Hence, declaratory judgment plaintiffs would have a multitude of forum choices and the aggrieved patent holder would be much more limited. Although this seems unsettling at first glance, it is actually the patent holder who dictates when a potential infringer could bring suit. Declaratory judgment actions can be brought only when the infringer has a reasonable apprehension of being sued (caused by some act of the patent holder). *Supra* notes 29–33 and accompanying text. Hence, only the patent holder's actions can give rise to a declaratory judgment action, thereby giving the patent holder significant control over the forum.

associated regional variation in procedural and substantive adjudication of patent cases. The data also substantiate the impact of forum selection on win rate through direct comparison among district courts with high concentrations of patent cases and by analyzing the variation in win rate based upon who selected the forum. A wide range of choices exists among available forums for bringing suit, and the empirical evidence suggests that the choice matters. Forum shopping may be more pervasive after this publication, which documents the regional variation.

Even though patent holders have ninety-four districts in which to bring suit, they consistently gravitate toward a cluster of districts. Some theories explain why particular jurisdictions may be appealing. For example, the Northern District of California has a high patent holder win rate and is the locus of many high-tech industries, while the Eastern District of Virginia affords the speediest justice in the country. There are other popular jurisdictions such as Delaware and Massachusetts whose popularity cannot be explained by the empirical results. These districts have not been particularly favorable for the patent holders and they do not provide expedient resolution, yet for some reason their percentage of patent case filings far exceeds their civil case averages generally. Accordingly, patent holders perceive some benefit to certain forums, which cannot be substantiated or explained by the empirical evidence.

The success of the patent system for promoting innovation hinges on the certainty and enforceability of patent rights. Unpredictability in the system, which causes systematic over-compliance by competitors, is inefficient and robs the public of competing products. The disproportionate consolidation of patent cases in certain district courts suggests a preference by patent holders for these courts. The empirical results presented herein demonstrate significant outcome variation among these "preferred" forums, indicating that there are likely several reasons why patent holders gravitate towards them. Further research should consider why patent holders select these forums and how the empirical results presented in this Article might impact future forum selections. It would also be useful to study exactly how transfer options impact outcome in patent cases as a means of further examining the impact of forum selection on procedural and substantive outcome. Although concrete explanation of forum selection is often elusive, the empirical results presented offer a starting point.

ARTICLE SUBMITTED BY KIMBERLY A. MOORE, PROFESSOR OF LAW, GEORGE MASON UNIVERSITY SCHOOL OF LAW, ENTITLED "ARE DISTRICT COURT JUDGES EQUIPPED TO RESOLVE PATENT CASES?"

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ARE DISTRICT COURT JUDGES EQUIPPED TO RESOLVE PATENT CASES?

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> "When I use a word," Humpty Dumpty said, in a rather scornful tone, "it means just what I choose it to mean — neither more nor less."
> "The question is," said Alice, "whether you can make words mean so many different things."
> "The question is," said Humpty Dumpty, "which is to be master — that's all."[1]

I. INTRODUCTION

Can the patent system flourish if the scope of the patentee's property right is wrongly assessed one-third of the time? This Article presents the results of an empirical study that shows that district court judges improperly construe patent claim terms in 33% of the cases appealed to the Federal Circuit.[2] This is problematic for two reasons. First, it raises concerns about the efficiency of an adjudication system where no appellate review of these decisions is permitted until all issues are resolved by the trial court applying its claim construction. Since claim construction is the touchstone for any infringement or validity analysis, an erroneous claim construction impacts most liability decisions. The data show that errors in district court claim constructions require reversing or vacating judgments in 81% of these cases. In the absence of a route for expedited appeal of claim construction, district courts are forced to proceed with lengthy[3] and expensive[4] patent litigation based on their frequently erroneous claim construction.

Second, the 33% error rate for claim construction creates doubt about the abilities of district court judges to adjudicate complex technical patent cases. Although there has been considerable commentary criticizing the practical limitations of juries adjudicating

1. LEWIS CARROLL, ALICE'S ADVENTURES IN WONDERLAND AND THROUGH THE LOOKING GLASS 190 (Roger L. Green ed., Oxford Univ. Press 1971).

2. The Federal Circuit has exclusive nationwide jurisdiction over appeals from all district court cases arising under the patent laws pursuant to 28 U.S.C. § 1295. Therefore, all appeals of claim construction issues are to the Federal Circuit.

3. *See* Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. REV. 889, 993 (2001) [hereinafter *Forum Shopping*] (demonstrating that although patent cases represent only 0.57% of the annual civil caseload, they are 9.4% of what the courts deem complex cases requiring twenty days or more of trial).

4. *See* AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION, REPORT OF ECONOMIC SURVEY 2001 84–85 (2001) (an average suit will cost each party in excess of a million dollars in transaction costs).

patent cases,[5] little attention has been given to whether district court judges are the appropriate alternative.[6] Can district court judges determine the meaning of patent terms to one of skill in the art when the terms are "memory selection second switch means"[7] or "contact arrays being adapted to interchangeably connect"?[8] What about seemingly simple patent claim terms such as "between", "a", or "when"?[9] Are district court judges capable of accurately resolving patent cases or are they just the lesser of two evils?[10]

I analyzed this issue by collecting a database of all claim construction appeals to the Federal Circuit from 1996 to 2000. Claim construction, which is decided exclusively by the district court judge[11]

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5. *See* Kimberly A. Moore, *Judge, Juries and Patent Cases — An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 367–69 (2000). This article presents empirical research substantiating concerns that jury decision-making in patent cases may be based on bias or emotion rather than rationality or merit. *See id.* Utilizing a database containing every patent trial from 1983–1999, the author contends that juries are pro-patentee, less likely than judges to invalidate a patent, more likely than judges to find infringement, and more likely than judges to find an infringer willful. *See id.* at 380, 386–90. Although jury decision-making lacks sufficient transparency to ascertain flaws due to incompetence because of "black box" verdicts and deferential standards of review, the empirical results indicate that juries do not dissect issues, but rather decide cases all-or-nothing. *Id.* at 368, 396, 402–04; *see also* Rick Raber, *Jury Cases on Patent Infringement on Trial*, CHICAGO TRIB., June 12, 1995, at 6 ("Corporate defendants and patent lawyers have long griped that intellectual property litigation is too complex to leave to plumbers, housewives, mailmen and music teachers."); Richard B. Schmitt, *Court May Consider Some Limits on Juries' Role in Patent Lawsuits*, WALL ST. J., Feb. 18, 1994, at B6 (quoting patent attorney Donald Dunner as saying: "Give [jurors] a complicated biotechnology case or one involving lasers or computers, and their eyes glaze over."); J. Robert Chambers, *Jury Trials in Patent Cases: The Uncertain Course of the Federal Circuit*, 13 AIPLA Q.J. 361, 370–71 (1985) (arguing that patent cases are too complex for juries to understand).

6. *See* Markman v. Westview Instruments, Inc., 52 F.3d 967, 993 (Fed. Cir. 1995) (Mayer, C.J. concurring) ("there is simply no reason to believe that judges are any more qualified than juries to resolve the complex technical issues often present in patent cases"); *see also* Howard T. Markey, *On Simplifying Patent Trials*, 116 F.R.D. 369, 372 (1987) (arguing that there is no empirical evidence substantiating that trial judges will reach more correct judgments than juries in patent cases).

7. *See infra* note 46 and accompanying text.

8. *See infra* note 47 and accompanying text.

9. *See infra* notes 48–50 and accompanying text.

10. In 1999, I conducted a survey at the annual conference of the Association of Corporate Patent Counsels. On a scale of 1–10 (with 10 being very confident), respondents confidence in the jury's ability to understand the technology in patent cases was only 3.7. One Chief Patent Counsel with more than thirty years experience wrote "JURIES JUST PLAIN CAN'T DECIDE PATENT CASES PERIOD. . . . THIS IS HOPELESS." Interestingly, the respondents did not have much more confidence in the ability of district court judges to understand the technology in patent cases. On a scale of 1–10, their confidence in judges was only 5.6.

11. *See generally* Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996).

and reviewed *de novo* by the Federal Circuit,[12] provides an opportunity to assess the abilities of district court judges to interpret technical terms in a patent.[13] Such empirical evidence provides insight into the competency of judges to resolve technically sophisticated patent cases and the consequences of inaccurate decision making. This database also allows me to assess the utility and practicality of the new claim construction process and suggest some avenues for improving patent litigation.

Part II of this Article explains how patent claims are construed by district court judges and reviewed by the Federal Circuit. Part III lays out the empirical study performed and its results. Part IV analyzes these results and explains how the present means of adjudicating patent cases unnecessarily prolongs litigation and discourages settlement. It questions the process of having district court judges decide complex issues of patent infringement and validity based on their claim constructions when these constructions prove incorrect in 33% of the cases. The Article concludes that the most efficient way to balance the need for certainty and accuracy in patent claim scope determinations is not with increased deference to inaccurate district court decisions or by waiting for improvement in the quality of the district court decisions, but rather by providing expedited appeal of these issues to the Federal Circuit in limited circumstances.

II. HOW CLAIMS ARE CONSTRUED

Although juries are demanded in most patent cases, usually by the patent holder, district court judges play an increasingly significant and often definitive role in patent cases because they are now charged with the task of defining the patent claim terms. In *Markman v. Westview Instruments, Inc.*, the U.S. Supreme Court held that there was no Seventh Amendment right to a jury trial on the issue of patent claim construction.[14] Employing a functional approach, the Court determined that judges, with their training and experience, "are better suited" than juries to interpret patent claims.[15] While it may be true that educated judges familiar with legal issues are better than lay juries, the question

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12. *See* Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc).

13. What is actually being tested is whether district court judges are capable of construing patent claims in the manner desired by the Federal Circuit. Whether this is a test of accuracy or competency is another question I consider. *See infra* notes 69–99 and accompanying text.

14. 517 U.S. at 388–91.

15. *Id.* at 388–89.

remains whether judges can interpret technical language in patent claims.[16]

Patent claims define the metes and bounds of an inventor's property rights. Defining the meaning and scope of the claim terms is the first step in any patent infringement analysis.[17] The patent claim terms must be defined in order to determine what behavior constitutes patent infringement ex ante by a competitor trying to decide what zone of competition is permitted by the patent or ex post by the court trying to determine whether the competitor infringed. Patent claim terms are not construed in a vacuum. In interpreting patent claim terms, the district court judge must consider the intrinsic evidence:[18] the claims, the specification,[19] and the patent's prosecution history.[20] This appears to be straightforward legal construction, like statutory construction, which district court judges do all the time.[21]

The patent claim terms, however, are interpreted not by a "reasonable man," a standard with which most judges are familiar, but rather by "one of ordinary skill in the art" to which the patent pertains.[22]

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16. *Cf.* Autogiro Co. of Am. v. United States, 384 F.2d 391, 396 (Ct. Cl. 1967) ("The very nature of words would make a clear and unambiguous [patent] claim a rare occurrence.").

17. *See* Dow Chem. Co. v. United States, 226 F.3d 1334, 1338 (Fed. Cir. 2000); KCJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351, 1355 (Fed. Cir. 2000).

18. *See* Biovail Corp. Int'l v. Andrx Pharms., Inc., 239 F.3d 1297, 1300 (Fed. Cir. 2001); DeMarini Sports, Inc. v. Worth, Inc., 239 F.3d 1314, 1322 (Fed. Cir. 2001).

19. The specification, which includes the written description of the claimed invention and its preferred embodiment, must be consulted in construing a claim term because it may contain a definition for terms used in the patent claims. *See, e.g.*, Mycogen Plant Sci. v. Monsanto Co., 243 F.3d 1316, 1327 (Fed. Cir. 2001) ("[A] patentee is free to be his own lexicographer, so long as the special definition of a term is made explicit in the patent specification or file history.").

20. The patent's prosecution history is a written record of the exchanges between the inventor and the Patent & Trademark Office (PTO) during the patent acquisition process. During prosecution of the patent, the inventor may have provided the examiner with definitions of claim terms or may have limited the meaning of claim terms in order to secure allowance of the patent. Arguments regarding claim terms or amendments made to the claims should be considered by the judge when interpreting claim language. *See, e.g.*, Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 979 (Fed. Cir. 1999) (stating that the prosecution history can impact how claim terminology should be construed if the patentee "relinquished potential claim construction in an amendment to the claim or in an argument to overcome or distinguish a reference").

21. In fact, the Federal Circuit analogized claim construction to statutory interpretation in its *en banc* decision in *Markman*. *See* Markman v. Westview Instruments, Inc., 52 F.3d 967, 987 (Fed. Cir. 1995). The court suggested that like claim construction, statutory interpretation is a question of law for the court and statutes are interpreted by reference to the public record (legislative history). *See id.*

22. *See* Hoechst Celanese Corp. v. BP Chems. Ltd., 78 F.3d 1575, 1578 (Fed. Cir. 1996) (holding that the court construes a claim term as "persons experienced in the field of invention").

Patent claim terms are to be given their plain and ordinary meaning to one of skill in the art unless it appears from the intrinsic evidence that the inventor intended the terms to have some special meaning.[23] Hence, the district court judge must attempt to step in the shoes of a person skilled in the technical field of the patented invention and determine from that vantage point what the terminology in the patent claims means.[24] For example, in *Robotic Vision Systems, Inc. v. View Engineering, Inc.*, the district court judge determined that one of skill in the art of the invention was an engineer with an integrated circuits background.[25] The judge then had to *pretend* to be a person with those skills and degrees to interpret as they would the terms "providing . . . fiducials," "correlated . . . heights," "disposing . . . in a prearranged pattern," and "restricting . . . to a predetermined range of heights."[26]

Since few district court judges are one of ordinary skill in the technology of the invention, the court can accept extrinsic evidence "to enhance its understanding of the technology."[27] Extrinsic evidence can be dictionary definitions, learned treatises, expert testimony, or anything else the court deems helpful to its task.[28] The evidence and argument that the district court judge hears regarding claim construction is usually presented either in summary judgment briefing or in a mini-trial called a *Markman* hearing. The district court judge has broad discretion over whether to have a *Markman* hearing,[29] when to have this hearing,[30] and

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23. *See* Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996) ("Although words in a claim are generally given their ordinary and customary meaning, a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition is clearly stated in the patent specification or file history.").

24. *See* Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc., 222 F.3d 951, 955 (Fed. Cir. 2000).

25. 189 F.3d 1370, 1373 (Fed. Cir. 1999) (stating that the district court judge found that one of ordinary skill in the art is "(1) a person with a B.S. degree in engineering, mathematics, or a technical discipline; (2) an applications engineer; or (3) a person with knowledge based on experience equivalent to (1) or (2)").

26. *Id.* at 1375 (holding that the district court judge's interpretation of these phrases was correct).

27. *DeMarini Sports*, 239 F.3d at 1323. Extrinsic evidence may not be used to vary the plain meaning of a claim term. *See Vitronics Corp.*, 90 F.3d at 1584.

28. *See Vitronics Corp.*, 90 F.3d at 1584.

29. Some district court judges permit only attorney briefing on the issue of claim construction, others will permit attorney argument on claim construction, and still others will hold *Markman* hearings with the introduction of expert witness testimony and other evidence. *See* Elf Atochem N. Am. Inc. v. Libbey-Owens-Ford Co., 894 F. Supp. 844, 850 (D. Del. 1995) ("The court can attempt to resolve these disputes on the paper record. Second, the court can hold a trial to resolve the disputes. Finally, the court can wait until trial and attempt to resolve claim disputes before the evening before the jury must be instructed.").

30. The district court judge has discretion to decide at what stage in the litigation she

what evidence to admit. The Federal Circuit has provided little guidance regarding how, when, and whether to conduct *Markman* hearings.[31]

Determining the scope of the patent claims is the most important issue in a patent infringement suit. How the judge construes the patent claims is often dispositive of the infringement and validity analysis.[32] After the judge construes the patent claims, if there is any remaining issue regarding infringement, it is determined by the jury if one was demanded.[33]

Following the Supreme Court's decision in *Markman* that judges are better equipped than juries to decide claim construction, the Federal Circuit held that claim construction is a question of law and therefore subject to *de novo* review.[34] Because district court judges are required to provide detailed opinions articulating the basis for their findings of fact and conclusions of law,[35] examining the outcomes of appealed claim construction issues provides an excellent opportunity to ascertain how accurately the district court judges construe claims.

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will resolve claim construction disputes. It may be done early in the litigation or after the trial has begun. Early claim construction is advantageous in that it may resolve infringement issues entirely or it may encourage settlement between the parties. *Cf.* 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 the optimal time for the claim construction hearing is "after discovery but before the trial begins — specifically, at the time of the court's consideration of summary judgment motions").

31. *See* Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc., 200 F.3d 795, 803 (Fed. Cir. 1999) ("AS&E argues that claim construction should be done no earlier than the end of discovery, and urges this court to adopt a uniform rule to this effect. We see no need for such a rule, for the stage at which the claims are construed may vary with the issues, their complexity, the potentially dispositive nature of the construction, and other considerations of the particular case."); Sofamor Danek Group, Inc. v. DePuy-Motech, Inc., 74 F.3d 1216, 1221 (Fed. Cir. 1996) (holding that the timing of the *Markman* procedures is at the discretion of the district court); *see also* Robert C. Weiss et al., *Markman Practice, Procedure & Tactics*, *in* PATENT LITIGATION 2000, at 117, 172 (PLI Patents, Copyrights, Trademarks and Literary Property Course, Handbook Series No. 619, 2000) ("[T]he Federal Circuit has not provided any clear guidance as to the timing, procedures and evidentiary aspects of claim construction."); Janice M. Mueller, *Taking "Inventory" After Markman: The Supreme Court Confirms A New Era In Patent Litigation*, THE LAW WORKS 6 (1996) (stating that the Federal Circuit has provided little guidance on claim construction in the past).

32. Markman v. Westview Instruments, Inc., 52 F.3d 967, 989 (Fed. Cir. 1995) (Mayer, C.J., concurring) ("[T]o decide what the claims mean is nearly always to decide the case.").

33. *See* Netword, LLC v. Centraal Corp., 242 F.3d 1347, 1350 (Fed. Cir. 2001).

34. *See* Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc). The Supreme Court actually described claim construction as a "mongrel practice." Markman, 517 U.S. at 378.

35. Fed. R. Civ. P. 52.

III. JUDGING THE JUDGES: AN EMPIRICAL STUDY OF PATENT CLAIM INTERPRETATIONS

A. The Data Collected

I collected a database of all post-*Markman* Federal Circuit cases addressing claim construction. This database includes every Federal Circuit case, whether published, unpublished, or summarily affirmed (Rule 36), in which claim construction issues were appealed.[36] The database includes all 323 claim construction cases appealed to the Federal Circuit from April 23, 1996 (the day the Supreme Court issued the *Markman* decision) through December 31, 2000.[37] In these 323 cases, 496 separate claim construction issues were appealed.[38] This is the entire population of claim construction cases that were appealed, not a sample study that chooses a limited number of appeals. The remainder of this Part presents descriptive statistics about the population of claim construction appeals and the voting patterns of individual Federal Circuit judges. It also describes the regression models performed that test the relationship between the defined variables such as the impact a technical background has on the likelihood of a Federal Circuit judge to reverse a district court claim construction.[39]

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36. I conducted a search on Westlaw using the terms: patent & claim /s interp! or constru! The search retrieved 515 cases. Each one was examined to determine whether the district court judge's claim construction was being appealed to the Federal Circuit. I also collected the data on all Rule 36 summary affirmances that occurred during this same time period in order to ascertain whether the issue affirmed was claim construction. Pursuant to Rule 36 of the Federal Circuit Rules of Procedure, the court can summarily affirm without opinion a district court judgment. There were 161 Rule 36 affirmances during the time period of this study. After obtaining the appeal briefs in every one of these cases, I discovered that seventy-eight cases did appeal district court claim constructions. After eliminating cases that did not address claim construction, this database contained 323 cases.

37. Since this is a population study rather than a sample study, there is no need to perform statistical tests to evaluate the significance of the data. All of the empirical results presented are "statistically significant."

38. In many cases, more than one term construed by the district court judge was appealed to the Federal Circuit.

39. For each of the Federal Circuit decisions in the study, I collected the following information: party names; date of the Federal Circuit decision; district court where the case originated; claim terms appealed; the Federal Circuit judges who decided the appeal; the Federal Circuit judge who authored the opinion; whether the Federal Circuit judges who decided the case were appointed by Democratic or Republican presidents; whether the Federal Circuit judges who decided the case have a technical background or prior patent experience; whether the Federal Circuit agreed with or disagreed with the district court's claim construction; whether the Federal Circuit's decision on claim construction impacted the resolution of the case; and whether the appealed claim construction related to a means-plus-function term.

B. Limitations of the Data

There are several deficiencies in the data which must be acknowledged. First, this database only includes appealed claim construction decisions by district court judges. Undoubtedly, there have been many claim terms construed by district court judges that were not appealed because either the case settled or the parties simply chose not to appeal. There are two predictions that could be made about the likely outcome of the bulk of unappealed claim construction decisions. The first prediction is that the affirmance rate would be higher if all claim construction issues were appealed because the parties only appeal issues when they believe the judge was wrong. If this were true, the construction issues that were not appealed were more likely correct decisions by the district court judges. This prediction implies that district court judges are, in fact, better at construing claim terms than the empirical evidence presented herein suggests.

The second prediction, based on economic theory, suggests that the cases that are appealed are most likely the close cases in which the parties are more likely to disagree on predicted outcome.[40] The outlier cases where the judge got the claim construction clearly right or clearly wrong should likely settle to avoid transaction costs.[41] Under this theory, the unappealed claim construction decisions are not likely to substantially impact affirmance rates found in the empirical evidence presented herein. The selection effect theory, however, appears flawed when applied to appellate outcome statistics. Consistently elevated affirmance rates [42] in the appellate courts suggests that unless there is consistent deviation from the underlying assumptions of this economic model,[43] the model is not successful in predicting the selection of cases which are appealed. This may be attributable to the fact that appeal transaction costs are relatively low compared to the trial costs, therefore we expect more "Hail Mary" appeals.[44]

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40. *See* George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 4, 16 (1984).

41. *See id.* at 4.

42. *See, e.g.*, *infra* Table 1 and accompanying text (documenting the Federal Circuit's average affirmance rate of 81% over the last five years).

43. Commentators have argued that deviations from the 50/50 prediction can be explained by deviations from the underlying assumptions. *See* Bruce H. Kobayashi, *Case Selection, External Effects, and the Trial Settlement Decision*, DISPUTE RESOLUTION: BRIDGING THE SETTLEMENT GAP 17, 27 (David A. Anderson ed. 1996); Daniel Kessler et al., *Explaining Deviations from the Fifty Percent Rule*, 25 J. LEGAL STUD. 233, 236–42 (1996) (concluding that the win rate is closer to 50% among cases that conform more closely to the underlying assumptions of the Priest/Klein model).

44. *See* Kevin M. Clermont & Theodore Eisenberg, *Appeal From Jury or Judge Trial: Defendants' Advantage*, 3 AM. L. & ECON. REV. 125, 130–34 (2001) (arguing that

Although these predictions both suggest that appealed claim construction decisions may not be a random sample of all claim construction disputes, the empirical results still provide insight into the abilities of the district court judges and the practices of the Federal Circuit judges in reviewing these decisions.

Finally, there is a question regarding whether the Federal Circuit's *de novo* decisions on claim construction test the *accuracy* of district court judges' claim construction. This issue is discussed in more detail below.

C. The Empirical Results

1. Claim Construction of the District Court Judges

> Frankly, I don't know why I'm so excited about trying to bring this thing [patent suit] to closure. It goes to the Federal Circuit afterwards. You know, it's hard to deal with things that are ultimately resolved by people wearing propeller hats. But we'll just have to see what happens when we give it to them. I could say that with impunity because they've reversed everything I've ever done, so I expect fully they'll reverse this, too.
>
> Judge Samuel B. Kent[45]

As Figure 1 shows, according to the Federal Circuit, the district court claim constructions were wrong 28% of the time. District court judges struggled with technically complex terms such as "memory selection second switch means,"[46] and "contact arrays being adapted to interchangeably connect"[47] and seemingly simple terms such as "between",[48] "a",[49] and "when."[50] Since many appeals raise more than

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the 80% appellate affirmance rate suggests that the law should consider reforms aimed at discouraging appeals).

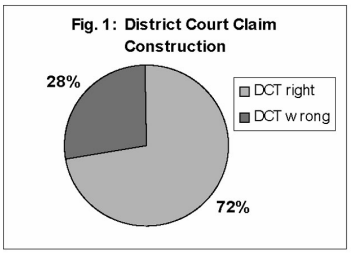
45. O.I. Corp. v. Tekmar Co., No. 95-CV-113 (S.D. Tex. June 17, 1996). Interestingly, the "propeller hats" at the Federal Circuit affirmed the judge this time. *See* O.I. Corp. v. Tekmar Co., 115 F.3d 1576 (Fed. Cir. 1997).

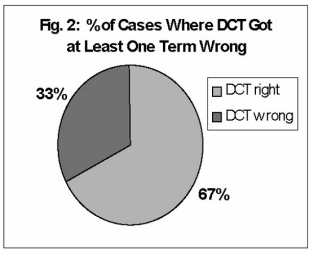
46. Overhead Door Corp. v. Chamberlain Group, Inc., 194 F.3d 1261, 1271–73 (Fed. Cir. 1999) (holding that the district court judge's construction of the claim term "memory selection second switch means" was incorrect).

47. Berg Tech., Inc. v. Foxconn Int'l, Inc., 185 F.3d 884 (Fed. Cir. 1999) (holding that the district court judge's construction of the claim term "contact arrays being adapted to interchangeably connect" was incorrect).

48. Foster v. Hallco Mfg. Co., 119 F.3d 16 (Fed. Cir. 1997) (holding the district court judge's construction of "between" was inaccurate).

49. KCJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351, 1355–56 (Fed. Cir. 2000)





one claim construction issue, Figure 2 presents district court errors by case rather than by issue. District court judges decided at least one claim construction issue wrong in 33% of all the appealed patent cases.

Perhaps the most complicated claim construction that must be performed by district court judges is the construction of terms written in means-plus-function format.[51] The patent statute permits patent holders to use functional rather than structural language in claiming their inventions.[52] As a matter of claim construction, judges must first determine whether a particular term uses means-plus-function language.[53] If the term employs means-plus-function language, the judge must identify the function for that claim element and determine what structure in the specification corresponds to that function.[54] The district court judges erred in construing means-plus-function language clauses in 33% of the cases in the study (31 of the 93 cases in which means-plus-function language appeared).

(holding that the term "a" should be construed as "at least one" and not limited to a single element).

50. Zi Corp. of Canada v. Tegic Communications Inc., 243 F.3d 564 (Fed. Cir. 2000) (holding that the district court judge's construction of "when" was too narrow).

51. *See, e.g.*, Rudolph P. Hofmann, Jr. & Edward P. Heller, III, *The Rosetta Stone for the Doctrines of Means-Plus-Function Patent Claims*, 23 RUTGERS COMPUTER & TECH. L.J. 227, 232–33 (1997) (lamenting the difficulty of using means-plus-function claim language).

52. *See* 35 U.S.C. § 112 ¶ 6. A means-plus-function claim element "shall be construed to cover the corresponding structure, materials, or acts described in the specification and equivalents thereof." *Id.*

53. Wenger Mfg., Inc. v. Coating Mach. Sys., Inc., 239 F.3d 1225, 1231 (Fed. Cir. 2001) ("Whether certain claim language invokes 35 U.S.C. § 112, ¶ 6 is an exercise of claim construction and is therefore a question of law, reviewable *de novo* by this court.") (quoting Personalized Media Communications v. Int'l Trade Comm'n, 161 F.3d 696, 702 (Fed. Cir. 1998)).

54. Globetrotter Software, Inc. v. Elan Computer Group, Inc., 236 F.3d 1363, 1367–68 (Fed. Cir. 2001) ("The determination of the corresponding structure of a means-plus-function claim is a determination of the meaning of the 'means' term, and is a matter of claim construction.").

In this study, 19% of the claim terms appealed raised an issue regarding means-plus-function language (93 cases). In 15% of the means-plus function cases (14 cases), the district court and the Federal Circuit disagreed over whether a claim term employed means-plus-function language. These figures indicate that district court judges have difficulty determining whether a claim term employs means-plus-function language at all.[55] In addition, the district court judges interpreted means-plus-function clauses incorrectly, according to the Federal Circuit, in 30% of the cases (28 times). Ultimately, the district court judges erred in one or more aspects of the means-plus-function clause construction in 33% of all means-plus-function term appeals. In light of the complexity attendant the construction of means-plus-function elements, it is not surprising that the error rate is higher for these terms (33%) than other claim terms appealed (28%).

If the Federal Circuit disagrees with the district court's claim construction, it may adopt the construction advocated by the appealing party (the one rejected by the district court), or it could proffer its own claim construction never before considered by either party. After deciding the "true" meaning of the appealed claim terms, the Federal Circuit then has three options: (1) affirm the district court's judgment if the incorrect claim construction did not affect outcome; (2) reverse the district court's judgment if the new claim construction would result in the opposite outcome; or (3) vacate the judgment if the new claim construction raises factual issues with regard to infringement that necessitate further action by the district court.

In 81% of the cases where the district court judge's claim construction was incorrect, the Federal Circuit reversed or vacated the decision. The consequences of flawed claim construction can be quite severe. For example, in *Exxon Chemical Patents, Inc. v. Lubrizol Corp.*,[56] the district court accepted Exxon's proposed claim construction. After a jury trial on infringement, Exxon was awarded $48,000,000 in damages which was doubled for willfulness, $8,700,000 in interest and $23,700,000 in attorney fees.[57] On appeal, the Federal Circuit rejected

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55. Although without empirical support, others have argued that accurate construction of means-plus-function terms in patent claims is difficult to accomplish. *See, e.g.*, Yoncha L. Kundupoglu, *The Law of Means-Plus-Function Language*, 28 AIPLA Q.J. 39, 46 (2000) ("[T]he [means-plus-function construction] analysis has become so convoluted and complex that the outcomes of several recent cases appear to be in conflict with each other, making the interpretation of a putative means-plus-function limitation a risky venture."); William F. Lee & Eugene M. Paige, *Means Plus and Step Plus Function Claims: Do We Only Know Them When We See Them?*, 80 J.P.T.O.S. 251, 252 (1998) ("[T]he law of what constitutes a means-plus-function claim is fraught with uncertainty . . . .").

56. 64 F.3d 1553 (Fed. Cir. 1995).

57. *See id.*

both parties' proposed claim constructions and instead proffered its own construction of the disputed term. Instead of remanding the case for a new trial and for the admission of evidence on the new claim construction, the Federal Circuit reversed the case outright.[58] Critical of this procedure by the majority, Judge Nies in her dissent commented:

> By advocating a different interpretation of the claim *sua sponte*, the majority required Exxon to litigate during trial not only its opponent's position but also the unknowable position of the appellate court. Exxon has been deprived of a jury trial on an unasserted and untried theory. The majority decision comes out of the blue.[59]

Errors in district court claim construction have a serious impact on outcome. Since the Federal Circuit disagrees with one in three claim constructions by district courts and most of these errors result in reversal, a high degree of uncertainty regarding outcome exists until the appeal is decided.

The results show an overall case reversal/vacate rate of 27% in the database directly attributable to errors in district court claim construction. This rate includes all cases where the district court properly and improperly construed claims. This means that more than one in four appealed patent cases involving claim construction result in overturning the judgment reached by the district court solely for claim construction reasons.

This is a high error rate as compared to overall reversal rates from the Federal Circuit, which are contained in Table 1.[60] Because Table 1 includes the outcome of all appeals from the district courts during the years specified, it includes the cases reversed due to errors in the district court's claim construction. If you removed the claim construction appeals (with their 27% reversal/vacate rate) from other patent appeals the percentages in Table 1 would be significantly lower still.

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58. In another case, after the district court construed a patent claim favorable to the patentee, the infringer stipulated to infringement. Accordingly, no infringement evidence at all was introduced at the trial court. On appeal, the Federal Circuit reversed the claim construction and held that as a matter of law there was no infringement. *See* Durel Corp. v. Osram Sylvania, Inc., 256 F.3d 1298 (Fed. Cir. 2001).

59. 64 F.3d at 1569 (Nies, J., dissenting).

60. These reversal rates come directly from the Federal Circuit's reporting to the Administrative Office of the Courts. Annual Report of the Director of the Administrative Office of the United States Courts, Table B-8 (1995–2000).

Table 1 — Overall Federal Circuit Reversal Rates

YEAR	% of District Court Patent Cases Reversed
2000	16
1999	21
1998	19
1997	27
1996	13
1995	17

This result is not surprising because more deferential standards of review generally apply to other patent law issues. Fact findings by a jury are reviewed for substantial evidence.[61] Appellate review of jury verdicts is made more difficult by the black box nature of the jury verdicts. Juries do not have to articulate the basis and reasoning behind their conclusions. In the absence of such analysis it is difficult, if not impossible, for the Federal Circuit to scrutinize these verdicts on appeal. Fact findings by a judge are reviewed to determine if they are clearly erroneous.[62] Only legal questions decided by a judge or jury are reviewed *de novo*,[63] and there are not many pure questions of law.[64]

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61. *See, e.g.*, Upjohn Co. v. Mova Pharm. Corp., 225 F.3d 1306, 1310 (Fed. Cir. 2000) (holding that jury fact findings are reviewed to ascertain whether they are supported by substantial evidence).

62. *See, e.g.*, Weatherchem Corp. v. J.L. Clark, Inc., 163 F.3d 1326, 1332 (Fed. Cir. 1998) (holding that fact findings made in a bench trial are reviewed for clear error).

63. *See, e.g.*, Pioneer Magnetics, Inc. v. Micro Linear Corp., 238 F.3d 1341, 1344 (Fed. Cir. 2001) (holding that the legal question of prosecution history estoppel is subject to *de novo* review); Union Pacific Resources Co. v. Chesapeake Energy Corp., 236 F.3d 684, 692 (Fed. Cir. 2001) (holding that claim indefiniteness, a question of law, is reviewed *de novo*).

64. In fact, a jury can decide questions of law such as obviousness based upon several underlying factual determinations that include scope and content of the prior art, comparing the claims to the prior art, level of ordinary skill in the art, and objective considerations such as commercial success or failure of others. The Federal Circuit reviews such jury determinations by re-examining the record and presuming that the jury made all findings of fact consistent with its ultimate verdict on the legal question. *See, e.g.*, Newell Cos. v. Kenney Mfg. Co., 864 F.2d 757, 765 (Fed. Cir. 1988) ("Judges must accept the factual findings, presumed from a favorable jury verdict, which are supported under the substantial evidence/reasonable juror standard."). Hence, *de novo* review under these circumstances is not really *de novo*.

As part of another empirical project, I collected every patent case that went to trial from 1983–1999.[65] In that study, I examined the Federal Circuit reversal rates of decisions by judges and juries across a variety of patent issues.[66] These results are reproduced below in Table 2. As Table 2 shows, appellate affirmance rates for issues that are not pure questions of law, and therefore subject to deference on appeal, are affirmed more often than claim construction decisions. If these decisions were subject to less deference by the Federal Circuit, it is likely their affirmance rates would decrease as well. For factual determinations, however, which are often based on witness credibility, the Federal Circuit is not well-situated to review these issues without deference.[67]

Table 2 — Percentage and Number of Appealed Issues Affirmed By Federal Circuit[68]

	All Decisions	Jury	Judge
All Issues Affirmed	78% (1261)	78% (490)	78% (771)
Validity Affirmed	78% (443)	78% (166)	77% (277)
Infringement Affirmed	80% (500)	77% (225)	82% (275)
Enforceability Affirmed	76% (172)	75% (44)	76% (128)
Willfulness Affirmed	85% (98)	94% (32)	80% (66)

As this empirical evidence shows, the 33% reversal rate for claim construction is higher than the reversal rate for other issues. One plausible explanation is that district court judges are better at deciding infringement, validity, enforceability, and willfulness because they have

65. *See generally* Moore, *supra* note 5.

66. *See id.* at 397, 399.

67. Prior to the Federal Circuit's *en banc* ruling that claim construction would be reviewed *de novo*, several Federal Circuit judges suggested that claim construction did require fact finding by the district court judge on issues like credibility of expert testimony. *See, e.g.*, Fromson v. Anitec Printing Plates, Inc., 132 F.3d 1437, 1447 (Fed. Cir. 1997) (Mayer, C.J., concurring) ("[T]he trial judge has to make findings of fact as he decides the meaning to ascribe to the patent.").

68. *See* Moore, *supra* note 5, at 397, 399.

been doing it longer. District court judges struggle with claim construction because they are new to the task. This suggests that district court judges may become more accurate at claim construction with time. More likely the difference in affirmation rates are due to the different standards of review applicable to the issues.

2. Claim Construction of the Federal Circuit Judges

> *We are not final because we are infallible, but we are infallible only because we are final.*[69]

Throughout the Article, I have been discussing the Federal Circuit's review of the district court judges as a determination of correctness or accuracy. In short, I have been assuming that the Federal Circuit is pronouncing the correct construction for the patent claims, and if the district court judge's construction was not the same, it must be in error. This belief is premised on the frequency with which the Federal Circuit judges confront these issues. It is a common misconception that the Federal Circuit judges must themselves be specialists with technical backgrounds to be appointed to the court.[70] Contrary to this perception, not all Federal Circuit judges have a technical background, nor are all of the judges specialists in patent law prior to being appointed to the bench. At present, only four of the twelve active Federal Circuit judges have technical backgrounds.[71] The Federal Circuit judges do, however, generally hire law clerks with various technical backgrounds to assist them with their cases.[72] Is it possible that it is the Federal Circuit judges' constructions that are in error and the district court judges are actually correct?

In the case *CVI/Beta Ventures, Inc. v. Custom Optical Frames, Inc. ("CVI I")*, the Federal Circuit, in a panel consisting of Judges Archer, Newman, and Michel, reviewed a grant of preliminary injunction by the

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69. Brown v. Allen, 344 U.S. 443, 540 (1953) (Jackson, J., concurring) (referring to the Supreme Court).

70. *See, e.g.*, Matt Krantz, *Computer & Technology Patent Suits Try Patience Of High-Tech Companies*, INVESTOR'S BUS. DAILY, Dec. 9, 1996, at A6, *available at* 1996 WL 11863987 ("The U.S. Court of Appeals for the Federal Circuit in Washington, D.C., is known as the Supreme Court of Patents. It's manned by three judges with both legal and scientific training.").

71. Judges Lourie, Newman, Gajarsa, and Linn have technical backgrounds. *See* U.S. Court of Appeals for the Federal Circuit, Judicial Biographies, *available at* http://www.fedcir.gov/judgbios.html (last visited Sept. 29, 2001).

72. *See* Jonathan Ringel, *Federal Circuit's Scientific Method: Coveted Judicial Clerkships Draw Pool of Candidates with Technical Backgrounds to Match the Court's Docket*, LEGAL TIMES, Nov. 6, 2000, at 10 (noting that twenty-five of thirty-six law clerks from the Federal Circuit had a science or engineering background).

U.S. District Court for the District of Maryland.[73] The district court construed the claim term "greater than 3% elasticity" to mean that the eyeglass frame "will recover at least 3% of its original shape after being subject to strain, rather than meaning it must show complete recovery after a strain of greater than 3%."[74] The three judge panel of the Federal Circuit unanimously affirmed this claim construction citing the patent's specification, drawings, and prosecution history as supporting the fact that CVI/Beta did not limit its claim to complete recovery. The Federal Circuit acknowledged that dictionary definitions supported an interpretation of elastic as complete recovery and that Figures 2F and 2H of the patent showed complete recovery. The court concluded, however, that the specification and drawings did not support the complete recovery construction. The Court pointed to the embodiment in Figure 2G as an example of where the phrase "elasticity" is not used in the context of complete recovery.

The Federal Circuit had a second occasion to review a judgment regarding this same eyeglass frame patent. In this Eastern District of New York case, *CVI/Beta Ventures, Inc. v. Tura LP (CVI II)*,[75] CVI/Beta sued a different defendant for infringing the same eyeglass frame patent. A three judge panel consisting of Judges Schall, Michel, and Friedman, unanimously held that this district court judge erred in construing the term "elasticity." The district court judge had rejected the complete recovery interpretation advocated by the defendants and instead interpreted the term "greater than 3% elasticity" as requiring only that the frame spring back by at least 3%.[76] This is the exact claim construction the Federal Circuit had affirmed in *CVI I*. This time the Federal Circuit rejected its own earlier construction and held that the term "elasticity" required complete recovery of the frame.[77] This construction was proper, according to the court, in light of the patent's prosecution history, specification, and drawings. It cited Figures 2F and 2H, which showed complete recovery, and Figure 2G, which showed recovery to within 3–4%.[78]

The Federal Circuit in *CVI I* held that the term "greater than 3% elasticity" meant that the frame will recover at least 3% of its original shape after being subject to strain and rejected the assertion that this term meant "complete recovery after strain." In *CVI II*, a district court adopted this very construction, and the case was tried. On appeal, the Federal Circuit, relying on the exact same patent specification, drawings,

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73. 92 F.3d 1203 (Fed. Cir. 1996).
74. *Id.*
75. CVI/Beta Ventures, Inc. v. Tura LP, 112 F.3d 1146 (Fed. Cir. 1997).
76. *Id.* at 1151–52.
77. *Id.* at 1157–58.
78. *See id.* at 1154–55.

and prosecution history, effectively reversed itself holding that the term "greater than 3% elasticity" meant complete recovery and rejected the construction that it will recover at least 3% of its original shape. In both cases, the Federal Circuit construction was based entirely on intrinsic evidence (the patent claims, specification, and prosecution history).[79] In both cases, the exact same intrinsic evidence was before the court. Only in a footnote does the Federal Circuit even mention that it previously construed this same patent claim language in a contrary manner:

> In *CVI/Beta Ventures, Inc. v. Custom Optical Frames, Inc.*, . . . a different panel of this court, in a non-precedential opinion, upheld the grant of a preliminary injunction against infringement of the '112 and '955 patents. In so doing, the panel affirmed an interpretation of the 3% elasticity limitation which did not restrict the claim to complete recovery. In its opinion, the panel stated that it could not conclude "in the context of the preliminary injunction proceeding that the district court erred in rejecting Custom Optical's proffered claim construction." The panel noted, as well, that the parties would have the opportunity at the merits stage to expand their arguments and to present any additional arguments. In this appeal, we review a different trial court's final claim construction as part of our review of the judgment on infringement. Therefore, unlike the earlier appeal, this appeal required us to construe the asserted claims based upon the final and complete record in the case.[80]

The fact that the earlier claim construction was performed by a different panel of judges (and in fact Judge Michel was on both panels) in no way justifies the court's lack of stare decisis. Subsequent panels of the appeals court are always bound to follow their own precedent.[81] Since *Markman* and *Cybor* made claim construction purely a question of law devoid of fact findings, stare decisis ought permanently to fix claim construction holdings in the same manner as resolved questions of statutory construction. Moreover, as a policy matter, the Federal Circuit

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79. *See id.* at 1157 n.6 ("We view this as a case in which reliance on extrinsic evidence (e.g., expert testimony) is not necessary.").

80. *Id.* at 1160 n.7.

81. *See, e.g.*, Texas Instruments Inc. v. Cypress Semiconductor Corp., 90 F.3d 1558, 1569 (Fed. Cir. 1996).

ought not overturn its own claim constructions because competitors need to have a stable understanding of a patent's scope. In fact, the Supreme Court's decision in *Markman* was premised on the need for this exact stability.[82]

Similarly, the fact that the first decision was non-precedential does not explain the second panel's decision not to follow the earlier claim construction. In a subsequent case, *Burke, Inc. v. Bruno Independent Living Aids, Inc.*, the Federal Circuit held that, in the interest of consistency, the parties ought to be able to rely on Federal Circuit claim constructions despite the fact that they may issue in nonprecedential opinions.[83] In *Burke*, the Federal Circuit distinguished its actions in the *CVI/Beta* cases on the grounds that in "the first [CVI/Beta] case the claims were considered in the context of preliminary injunction proceedings, whereas in the second case the claim construction was based upon the final and complete record."[84] This distinction is not compelling where claim construction is a question of law, and, in both cases, the Federal Circuit based its construction on the exact same patent claims, specification, drawings, and prosecution history. There was no fuller, more complete record or additional evidence on claim construction present in *CVI II* that did not exist in *CVI I*. Despite the different procedural status of the case, the contradictory claim constructions of the exact same patent term based on the exact same supporting evidence are difficult (if not impossible) to reconcile.

The *CVI/Beta* cases create doubt about whether the Federal Circuit serves as a test of "accuracy" of district court claim construction. In light of these concerns, the remainder of this Part describes the claim construction decisions of the Federal Circuit judges in an attempt to ascertain, among other things, the frequency with which these judges disagree amongst themselves regarding the meaning of claim terms. Studying the outcome of claim construction appeals by individual Federal Circuit judges also allows us to examine whether popular perceptions about Federal Circuit decision-making being "panel dependent" can be substantiated empirically.[85] I study the voting patterns

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82. *See* Markman v. Westview Instruments, Inc., 517 U.S. 370, 390–91 ("Finally, we see the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court.").

83. 183 F.3d 1334, 1337 (Fed. Cir. 1999).

84. *Id.* at 1337–38; *see also* Sofamor Danek Group, Inc. v. DePuy-Motech, Inc., 74 F.3d 1216 (Fed. Cir. 1996) (holding that district court judges are not obligated to conclusively construe claim terms at the preliminary injunction stage).

85. *See* John R. Allison & Mark A. Lemley, *How Federal Circuit Judges Vote in Patent Validity Cases*, 27 FLA. ST. U. L. REV. 745 (2000) (discussing belief among patent attorneys who practice before the Federal Circuit that "the outcome of their case depends on the panel they draw"); *see also* Mary L. Jennings, *Should Advocates Be Informed of the Identities of Members of Judicial Panels Prior to Hearings*, 6 FED. CIR. B.J. 41 (1996)

of the individual judges as well as the voting patterns of groups of judges. For example, I consider whether judges with technical backgrounds or prior patent experience are more likely to substitute their own meaning for technical patent claim language and, correspondingly, whether the non-technical judges are more likely to adopt the district court construction.

There were nineteen Federal Circuit judges in the population who participated in one or more claim construction appeals.[86] Table 3 contains a list of the judges and details their participation in the cases in this database. As of this writing (April 2001), of the nineteen Federal Circuit judges listed in Table 3, eleven are active judges,[87] four are senior judges,[88] and four have died or retired.[89] Twelve of the judges have participated in more than forty such cases. Nine of the judges have construed more than 100 patent claim terms each.

(noting the refusal of the Federal Circuit to divulge which judges will hear any given case until the morning of oral argument to avoid possible judge-shopping).

86. Most cases are decided by a panel of three Federal Circuit judges. One case in the database was decided by more than three judges (*en banc*), and a few cases were decided by only two judges when one of the panel members died prior to issuance of the opinion and the other two judges were in agreement on the outcome.

87. They are Judges Bryson, Clevenger, Dyk, Gajarsa, Linn, Lourie, Mayer, Michel, Newman, Rader, and Schall.

88. They are Judges Archer, Friedman, Plager, and Skelton.

89. Judge Cowen is retired. Judges Nies, Rich, and Smith are deceased.

Table 3 – Participation by Federal Circuit Judges in Claim Construction Appeals

Judge	# of Cases	Opinions Authored	Majority	# of Claim Terms Construed	Dissents[90]
Archer	43	11	43	59	0
Bryson	74	19	73	120	1
Clevenger	87	25	87	122	0
Cowen	7	0	7	10	0
Dyk	1	0	1	2	0
Friedman	19	0	18	28	2
Gajarsa	64	17	64	91	0
Lourie	83	35	82	129	1
Linn	6	1	6	10	0
Mayer	80	2	79	131	1
Michel	82	21	81	125	1
Newman	79	19	76	129	3
Nies	1	1	1	2	0
Plager	60	13	60	100	0
Rader	106	34	101	169	6
Rich	59	22	59	97	0
Schall	82	18	82	136	0
Skelton	15	0	15	23	0
Smith	15	0	15	21	0

As Table 3 shows, in the 496 claim terms appealed to the Federal Circuit, there were only fifteen total dissents (most belonging to Judge Rader who alone dissented in six claim construction appeals). Hence only 3% of the time did Federal Circuit judges disagree amongst themselves on the proper claim construction. Although the *CVI/Beta* cases were both unanimous decisions, such decisions generally create a sense of security that the claim construction is not a coin flip. Moreover,

90. These are dissents regarding the majority's claim construction only. If a judge dissented on an unrelated issue, it is not included in this dataset.

the frequency with which the Federal Circuit judges are construing claims suggests that these judges are developing expertise at the task that will increase their ability to perform it accurately. While individual district court judges construe only a handful of patent claim terms, the Federal Circuit judges perform this task with great frequency.[91]

Table 4 below details the different substantive outcomes of the claim construction appeals by individual judges to ascertain whether there are any voting patterns or potential biases by individual Federal Circuit judges that appear in their past decisions.[92]

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91. *See infra* notes 106–10 and accompanying text (explaining that because most patent cases settle at the outset of litigation district court judges are not actually exposed to many patent claim terms).

92. This data is not presented in an attempt to predict how individual Federal Circuit judges will vote in any future cases. Those who use it for those purposes do so at their peril.

Table 4 - Substantive Outcomes Among Federal Circuit Judges of Claim Construction Appeals

Judge	# of Claim Terms Construed	% of Terms District Court Construed Correctly	% of Cases District Court Construed All Terms Correctly
Archer	59	81%	73%
Bryson	120	72%	64%
Clevenger	122	75%	68%
Cowen	10	90%	86%
Dyk	2	0%	0%
Friedman	28	61%	41%
Gajarsa	91	74%	71%
Lourie	129	71%	64%
Linn	10	80%	83%
Mayer	131	71%	66%
Michel	125	79%	73%
Newman	129	70%	64%
Nies	2	50%	50%
Plager	100	73%	72%
Rader	169	72%	67%
Rich	97	60%	58%
Schall	136	68%	60%
Skelton	23	83%	80%
Smith	21	86%	87%

The third column of Table 4 reports the percentage of claim terms where each Federal Circuit judge held that the term should be construed in the same way that the district court judge construed it — an identity of construction. The last column of Table 4 gives the percentage of cases in which the district court got all appealed claim construction issues correct according to the Federal Circuit judges.

There is some variation among individual judges in the frequency with which they uphold the district court judge's claim construction. For example, Senior Judge Friedman participated in panels that held that the district court judge properly construed patent claim terms 41% of the time and Senior Judge Smith 87% of the time. However, most Federal

Circuit judges upheld district court claim constructions with similar frequency — near the mean of 67%. Among those judges who considered the appeal of more than 100 claim construction issues, the agreement with district court construction ranged from 60–73%. While the high number of reversals of district court claim constructions is not likely to surprise many, the high degree of conformance among voting patterns of the Federal Circuit judges in these claim construction appeals may.

It might also be informative to highlight the Federal Circuit judges who have a technical background to ascertain whether judges with more technical knowledge are more likely to substitute their own claim construction for that of the district court judge.[93] A simple linear regression model[94] allows a test of the hypothesis that there is no difference in the likelihood that Federal Circuit judges with a technical background and Federal Circuit judges without a technical background will construe claims differently from the district court judge. The regression result ($p=0.642$) does not permit rejection of the hypothesis.[95] This means that there is no statistically significant difference in how judges with a technical background and judges without a technical background reviewed district court claim constructions.[96] The result is the same even if we redefine the group as judges with prior patent-related experience. There are seven judges in the study with prior "patent" experience.[97] There is no significant difference in how judges with patent experience and judges without patent experience review district court claim constructions.[98] Similarly, there is no significant difference in how judges appointed by Republicans and judges

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93. Judges Lourie, Newman, Gajarsa, and Linn have technical backgrounds.

94. A regression model permits examination of the relation between two variables: an independent variable (whether the Federal Circuit judge has a technical background or not) and a dependent variable (the outcome of the claim construction appeal).

95. The p value (also called significance level) is the probability of rejecting the null hypothesis when it is actually true. A rejection of the null hypothesis with $p \leq 0.05$ is 95% confidence. Throughout this article, I use the term "significant" in the formal statistical sense indicating that the null hypothesis can be rejected with at least 95% confidence ($p \leq 0.05$). If $p > 0.05$, I conclude that observed differences or relationships are not statistically significant, and the null hypothesis cannot be rejected in these cases.

96. $\beta=-0.015$; $t=-0.573$; $p=0.567$

97. Only patent experience prior to appointment to the Federal Circuit is considered. Judges Lourie, Newman, Gajarsa, and Linn have technical backgrounds and practiced patent law. Judge Rich, often thought of as the father of modern American patent law, helped draft the 1952 Patent Act, taught patent law at various institutions, and wrote many articles on the subject. Judge Rader, prior to his appointment to the Court, was Senate counsel to the Subcommittee on Patents, Copyrights, and Trademarks. Judge Dyk represented Lubrizol in a number of patent litigations and argued five patent appeals to the Federal Circuit prior to joining the Court.

98. $\beta=-0.001$; $t=-0.054$; $p=0.957$

appointed by Democrats construe claims.[99] This fact indicates that neither Republican nor Democrat appointees exhibit any discernable tendencies to affirm or reverse district court claim constructions. No correlation among these variables seems like a good thing. We would rather have judges act independently, basing their decisions on the facts of each individual case before them, rather than according to some predisposition.

IV. CHOOSING BETWEEN CERTAINTY AND ACCURACY: WHICH IS TO BE MASTER — THAT'S ALL.

> I have had nine of my cases appealed to the Federal Circuit. I have been affirmed in one. I have been affirmed in part in one. And I have been reversed in seven. That does not relieve me — and I am not proud of that. I don't throw that out as a challenge to anyone — far from it. My duty is to predict what they are going to say and follow the law. But I haven't had noticeable success in dealing with these matters.
>
> Chief Judge William G. Young[100]

The high reversal rate on claim construction is problematic. It creates uncertainty in patent cases and in patent claim scope analysis until the Federal Circuit review is complete. This hinders ex ante attempts to ascertain permissible behavior and ex post attempts to litigate infringement. Claim construction is critical to both infringement and validity determinations. Greater unpredictability exists for litigants and competitors if claim construction is not certain or definite until it is appealed to the Federal Circuit. In addition to the obvious effects on the cases that are reversed, which could include lengthy and expensive retrials, the high percentage of reversals increases litigation overall. Because of the increased uncertainty attending *de novo* review of claim construction, parties are less capable of predicting their chances of winning and therefore less likely to settle.[101] The unintended consequence of having district court judges construe patent claim terms

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99. β=0.009; t=0.325; p=0.746. Judges Archer, Clevenger, Lourie, Mayer, Michel, Newman, Plager, Rader, Rich, and Schall were appointed by Republican presidents. Judges Bryson, Cowen, Dyk, Friedman, Gajarsa, Linn, Nies, Skelton, and Smith were appointed by Democratic presidents. This is the party of the President who appointed the judge and not necessarily the party of the judge himself.

100. Honorable William G. Young, *High Technology Law in the Twenty-First Century*, 21 SUFFOLK TRANSNAT'L L. REV. 13, 19 (1997).

101. *Cf.* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW § 20.2 (5th ed. 1998) (arguing that litigation results from an uncertainty that causes a divergence of estimates).

as a question of law is that, rather than promoting settlement, it increases uncertainty and prolongs litigation because parties hold out for Federal Circuit review.[102] Treating claim construction as a question of law, however, permits *de novo* review by the Federal Circuit, which increases the accuracy of the claim scope analysis. This is important because the meaning of the claim terms determines the scope of the patent holder's exclusive rights.[103] The remainder of this Part examines possible solutions to this problem in an attempt to restore balance between the competing needs for certainty and accuracy in patent case adjudication.

A. More Deference to the District Courts: Should We Sacrifice Accuracy for Certainty?

Although more certainty in patent claim scope could be achieved by eliminating *de novo* review by the Federal Circuit, this is unlikely and unwise. There would be some benefit to greater deference to the district courts. Greater deference to the meaning assigned to claim terms by the district court would increase the affirmance rate at the Federal Circuit. Although this does not mean that the district court judges would be getting the meaning of the claims correct, the increased affirmance rate would nonetheless raise confidence in the judicial system. Greater deference would also discourage appeals and increase settlements earlier in the litigation process.[104] In addition, it may result in more thoughtful claim construction by district court judges. Undoubtedly, with reversal rates so high, district court judges are frustrated with the claim construction process. If more deference were given to claim interpretations — making them more meaningful — it might encourage district court judges to invest more time in the process, resulting in better decisions.

The problem with giving claim construction greater deference on appeal is that if you believe that the Federal Circuit reversal rate is high because district court judges are erring in their interpretations of the technical patent terms, giving more deference would trade accuracy for certainty. Is it more important to have a quick result or to get the right

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102. With district court judges construing claim terms, there is likely to be an increased number of summary judgment grants, which may speed up case resolution.

103. If claims are construed too broadly, the patent holder's monopoly right is unnecessarily expanded, eliminating potential competition. If the claims are construed too narrowly, the patent holder is denied the exclusivity to which it is entitled. Both inaccurate claim constructions undermine the incentives behind the patent system, which attempts to strike a balance between the need to encourage innovative efforts and the need for competition.

104. Litigants would not hold out for a second chance to litigate claim construction on appeal if reversal rates were lower.

result? Can the patent system flourish if the scope of the patentee's property right is wrongly assessed one-third of the time? The effects on innovation would be difficult to quantify.

B. Status Quo: Should We Sacrifice Certainty for Accuracy?

One argument could be that no changes should be made to the patent litigation process because over time district court judges will improve at construing claims with experience. Despite their lack of technical background, district court judges could become more adept at interpreting claim terms because they are repeat players in patent litigation. Unlike juries where each juror likely serves on only one patent case in their lifetime, district court judges are repeatedly exposed to patent cases on their docket. Moreover, since *Markman* was decided, the Federal Circuit has created many "canons of claim construction," which should serve as tools to aid the district court judge in interpreting patent claims.[105] The data, however, does not substantiate such improvement. Figure 3 shows that affirmance rates have not improved substantially over the five years since *Markman*. Note the decline in district court affirmances after *Cybor* was decided in 1998 resolving the standard of review controversy in favor of *de novo* review.

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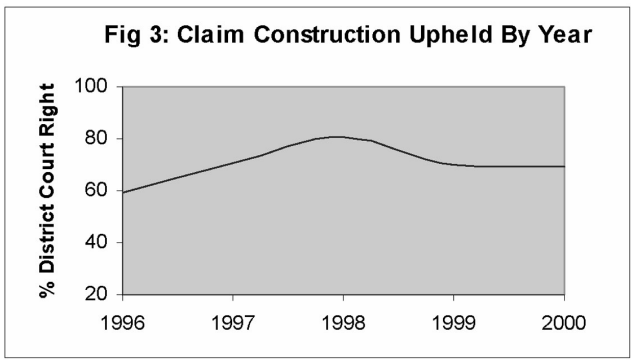
105. *See* KIMBERLY PACE MOORE ET AL., PATENT LITIGATION & STRATEGY 206–13 (West Group, American Casebook Series 1999) [hereinafter PATENT LITIGATION AND STRATEGY] (identifying and discussing nine canons of claim construction).



While it may be true that district court judges see more patent cases than the average juror, generally they do not adjudicate enough patent cases to develop expertise with the law and certainly not with the technology which changes from case to case. There are 646 active district court judges and more than 200 senior district court judges. Approximately 2200 patent cases are filed each year.[106] These figures indicate that district court judges are not seeing very many patent cases each year.[107] In fact, substantive involvement by district court judges in patent cases is far less than these numbers suggest because the majority of patent cases are resolved via settlement[108] or prior to any significant court involvement.[109] Only 5% of the patent cases filed each year go to trial (about 100 of the 2200 patent cases).[110] While district court judges may have more exposure to patent cases than jurors, their exposure to the technology and legal doctrines that arise in patent cases is very limited. In light of these numbers, it seems unlikely that district court judges will have sufficient exposure to patent cases or sufficient incentive in light of the *de novo* review to improve at construing patent

106. From 1996–2000, the number of patent case filings were as follows: 1840, 2112, 2218, 2318, and 2484 in each respective year. *See* Annual Report of the Director of the Administrative Office of the United States Courts, Table C-2A (2000).

107. *See Forum Shopping, supra* note 3, at 932. The patent case filings are not evenly dispersed among the 94 district courts or the 646 plus judges, but rather consolidated in a few select districts. *See id.* at 903.

108. During the last five years, 63% of all the patent cases in the United States were resolved via settlement, 8% by motion, 6% by transfer, 1% by default judgment, and 17% by other means. *See id.* at 913 (Figure 3).

109. During the last five years, 49% of all the patent cases were resolved early in the litigation without any significant court action or before the defendant even filed an answer in the case, 46% were resolved mid-litigation, and only 5% went to trial. *See id.* at 910 (Figure 1).

110. *See id.*

claim terms. The status quo of high reversal rates on claim construction will continue, depriving litigants of certainty until resolution of an appeal.

C. Expedited Appeals: Can We Balance Accuracy and Certainty?

There is simply no reason to have district court judges conduct trials and decide complex issues of patent infringement and validity based on their claim constructions when these constructions prove incorrect in 33% of the cases. The most efficient way to balance the need for certainty and accuracy in patent claim scope determinations would be to have the more accurate (final) adjudicator involved in the claim construction process earlier. This objective could be accomplished with an expedited appeal of the claim construction issues. In cases arising under the patent statute, the Federal Circuit generally only has jurisdiction "of an appeal from a final decision of a district court of the United States."[111] There are four potential ways to obtain early Federal Circuit review of a district court's claim construction.[112] First, an appeal can be taken if a summary judgment motion is granted and it disposes of all claims raised.[113] A grant of summary judgment of infringement or non-infringement following the district court's claim construction provides a route for expedited appeal of claim construction under limited circumstances.[114] Summary judgment of infringement is almost never appealable because of unresolved defenses such as invalidity and unenforceability which require trial. This means that no expedited appeal of claim construction is available to the infringer unless the infringer agrees to waive its unresolved defenses (invalidity and unenforceability).

A patent holder is more likely to obtain an expedited appeal following a summary judgment of non-infringement. Such a ruling would be final and appealable because it would be dispositive of liability — the defendant is not liable. Once the district court decides that the defendant does not infringe the patent, it is not required to address any other affirmative defenses such as invalidity or unenforceability.[115] If, however, there is a lingering declaratory

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111. 28 U.S.C. § 1295(a) (1994).

112. *See* John B. Pegram, *Markman and Its Implications*, 78 J. PAT. & TRADEMARK OFF. SOC'Y 560 (1996) (discussing the four potential vehicles for expedited appeal to the Federal Circuit).

113. FED. R. CIV. P. 56.

114. If there is no dispute over how the device accused of infringement operates, there may be no infringement issue remaining after claim construction, and accordingly summary judgment should be granted.

115. *See* W.L. Gore & Assocs., Inc. v. Int'l Med. Prosthetics Research Assocs., Inc.,

judgment counterclaim asking the court to declare that patent invalid or unenforceable[116] and these issues are unresolved, then the summary judgment of noninfringement is not appealable unless the district court certifies the appeal under Rule 54(b).[117] Rule 54(b) permits district court judges to enter final judgment with respect to one or more claims, even though there are outstanding counterclaims "upon an express determination that there is no just reason for delay and upon an express direction for the entry of judgment."[118] Greater use of Rule 54(b) in these limited circumstances ought to be encouraged to achieve some finality and certainty on the claim construction prior to conducting an expensive and lengthy trial on validity and enforceability.[119] Rule 54(b), however, is useful for securing expedited review of claim construction only when the district court grants summary judgment of noninfringement. It does not apply if: (1) the district court cannot grant summary judgment because of a disputed issue of fact; or (2) the district

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975 F.2d 858, 863 (Fed. Cir. 1992).

116. It is standard course in a patent infringement suit for the accused infringer to raise affirmative defenses of invalidity and unenforceability and to file a declaratory judgment counterclaim asking the court to declare the patent invalid or unenforceable. *See* PATENT LITIGATION AND STRATEGY, *supra* note 105, at 28.

117. *See, e.g.*, Trilogy Communications, Inc. v. Times Fiber Communications, Inc., 109 F.3d 739, 745 (Fed. Cir. 1997). It could be argued that permitting an appeal of claim construction issues (and corresponding infringement issues) while validity issues are still outstanding undermines the Supreme Court decision in *Cardinal Chemical Co. v. Morton International, Inc.*, 508 U.S. 83, 100–02 (1993), which emphasized the importance to the public at large of final resolution of validity issues. *See id.* (holding that the Federal Circuit may not vacate validity judgments after finding non-infringement). In *Cardinal Chemical*, the Supreme Court was concerned about the Federal Circuit forcing relitigation of resolved validity issues when it vacated validity judgments as moot after a finding of non-infringement was affirmed. *See id.* Permitting appeals from final judgments of noninfringement under Rule 54(b) or Rule 56 may force future litigation over validity and enforceability but does force relitigation as was the concern in *Cardinal Chemical.* Moreover, claim construction impacts claim scope, which in turn, affects validity determinations. It seems, therefore, that *Cardinal Chemical* ought not pose an obstacle to an expedited appeal of claim construction issues.

118. FED. R. CIV. P. 54(b).

119. Although not in the claim construction context, the Federal Circuit has recently encouraged use of Rule 54(b) by district court judges: "Although it is recognized that piecemeal appeals are inappropriate in cases that should be given unitary review, the entry of judgment under Rule 54(b) was clearly reasonable in this case, for it would avoid an unnecessary and lengthy trial of complex issues if the Rule 54(b) judgment were sustained." Intergraph Corp. v. Intel Corp., 253 F.3d 695, 699 (Fed. Cir. 2001) (granting Rule 54(b) judgment refusing to allow Intergraph to relitigate antitrust issues). The same logic applies to claim construction decisions that result in summary judgment of noninfringement. It would avoid unnecessary and lengthy trials of validity, enforceability, and other issues if these claim construction decisions were routinely certified under Rule 54(b).

court grants summary judgment of infringement, and there are outstanding defenses such as invalidity or unenforceability.

Summary judgment on the issue of infringement will likely increase after *Markman* because the meaning of the claim term is often dispositive of the claim scope. Unless there is some dispute over doctrine of equivalents issues or how the accused device operates, construction of the claim terms will often resolve the infringement issue. District court judges should certify these summary judgments when possible in order to secure expedited appeal of their claim construction decisions and avoid conducting trials with improper claim constructions.

There is also a right to immediate appeal from an order granting or denying a preliminary injunction.[120] However, the Federal Circuit has held that claim construction that occurs during the preliminary injunction stage, and its review of that claim construction, is not final.[121] The *CVI/Beta* cases demonstrate how unsatisfying this rule can be.[122] A balance needs to be struck between certainty and accuracy. Because claim construction should be based on the intrinsic evidence (the patent claims, specification, and prosecution history), claim construction that occurs at the preliminary injunction stage ought to be binding. If a *Markman* hearing is necessary, it could be held prior to the preliminary injunction ruling.

Finally, claim construction rulings could be appealed on an interlocutory basis pursuant to 28 U.S.C. § 1292(b) if the district court judge issued an order stating that the claim construction "involves a controlling question of law as to which there is substantial ground for difference of opinion and that an immediate appeal from the order may materially advance the ultimate termination of the litigation."[123] The Federal Circuit, however, has the discretion to accept or reject all

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120. 28 U.S.C. § 1292(c)(1) (1994).

121. *See* Sofamor Danek Group, Inc. v. DePuy-Motech, Inc., 74 F.3d 1216 (Fed. Cir. 1996) (holding that district court judges are not obligated conclusively to construe claim terms at the preliminary injunction stage).

122. *See supra* notes 73–80 and accompanying text.

123. 28 U.S.C. § 1292(b) (1994); *see also* Craig Allen Nard, *Process Considerations in the Age of Markman and Mantras*, 2001 U. ILL. L. REV. 355, 378 (2001) (arguing in favor of interlocutory appeals of claim construction as a matter of right or as a matter of discretion); George Summerfield & Todd Parkhurst, *Procedures For Claim Construction After Markman*, 20 MISS. C. L. REV. 107, 115–16 (1999) (arguing in favor of interlocutory appeals of claim construction); Frank M. Gasparo, Note, *Markman v. Westview Instruments, Inc. and its Procedural Shock Wave: The Markman Hearing*, 5 J.L. & POL'Y 723, 762–63 (1997) (arguing in favor of interlocutory appeals of claim construction). In light of the 33% reversal rate of district court claim constructions, district court judges should not be reticent about certifying claim construction questions as there is clearly "substantial ground for difference of opinion" regarding these questions of law.

interlocutory appeals, and thus far, it has refused all such claim construction appeals.[124]

Although no opinion has articulated the basis for the Federal Circuit's refusal, it is likely due, at least in part, to a belief that such appeals would dramatically increase the Court's workload. The Federal Circuit typically hears 450 appeals each year in patent cases from the district courts.[125] Although patent appeals only represent about 20% of the Federal Circuit's docket in terms of the number of cases, they are the most complex and time consuming of the cases the court hears.[126] There are approximately 2200 patent cases resolved each year in the district courts.[127] The Federal Circuit judges may fear that if claim construction were appealable on an interlocutory basis, many parties who settle rather than endure expensive and time-consuming litigation would appeal claim construction prior to settlement because a Federal Circuit appeal is relatively inexpensive compared to a district court trial.[128] Moreover, district court judges would likely be eager to certify claim construction questions for interlocutory appeal before proceeding with a full blown trial (especially if the 33% reversal rate continues). These arguments have merit, and undoubtedly the court's workload would increase if interlocutory appeals of claim construction were permitted. The

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124. *See* Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1479 (Fed. Cir. 1998) (en banc) (noting that the Federal Circuit has refused to accept interlocutory appeals of claim construction).

125. *See* Annual Report of the Director of the Administrative Office of the United States Courts, Table B-8 (2000) (reporting 455 appeals filed from the district courts); Annual Report of the Director of the Administrative Office of the United States Courts, Table B-8 (1999) (reporting 466 appeals filed from the district courts); Annual Report of the Director of the Administrative Office of the United States Courts, Table B-8 (1998) (reporting 419 appeals filed from the district courts); Annual Report of the Director of the Administrative Office of the United States Courts, Table B-8 (1997) (reporting 395 appeals filed from the district courts).

126. *See* John B. Pegram, *Should There Be a U.S. Trial Court with a Specialization in Patent Litigation?*, 82 J. PAT. & TRADEMARK OFF. SOC'Y 766, 771 (2000) ("Patent litigation is only a small part of the Federal Circuit's jurisdiction, accounting for less than 20% of the caseload, but requiring a somewhat larger percentage of the judges' time due to the relatively high level of complexity of patent cases."). Moreover, the underlying patented technology is becoming more complex, making the cases themselves more difficult to adjudicate. *Cf.* John R. Allison & Mark A. Lemley, The Growing Complexity of the United States Patent System, 1976–1998, (unpublished manuscript, on file with author) (presenting the results of an empirical study of patents and concluding that patents are becoming increasingly complex). This likely impacts the time it takes to understand and resolve each individual patent case, and claim construction appeals would require comprehension of the patent, prosecution history, and underlying technology.

127. *Forum Shopping, supra* note 3, at 932.

128. Patent trials routinely cost in excess of a million dollars per party. *See supra* note 4.

question is how much would it increase and is such an increase is manageable.

Utilizing a database of all patent cases terminated in the ninety-four district courts during the period 1995–1999, I attempt to quantify the impact on the Federal Circuit if interlocutory appeal of claim construction were permitted. A detailed description of the origin and compilation of the dataset appears in my prior work.[129] To summarize, the database contains all of the 9615 patent cases resolved by the ninety-four district courts during the five-year period 1995–1999.[130] It includes data on how the cases were resolved[131] and at what stage in the litigation that resolution occurs.[132] Sixty-three percent of all patent cases in the database settled during the district court proceedings (6007 of the 9615 cases).[133] The question is how many of these cases would have been appealed to the Federal Circuit rather than, or prior to, settlement. If all cases were appealed, it would triple the court's current docket of patent cases.[134] The court could not sustain such an increase.

Although 6007 patent cases did settle in the last five years, 34% of these settlements occurred prior to any court action.[135] These cases, which settled in many instances before the defendant even filed an answer or immediately following the pleadings but before any significant discovery or motions, are unlikely to be affected by the promise of early appeal of claim construction. These parties did not even wait for a district court claim construction prior to settlement. Of the 6007 settled cases, 25% settled after a judgment on a motion or after the pre-trial conference was held. These are the mid-litigation cases in which it is most likely claim construction could have impacted the settlement.[136] Of course, claim construction did not occur in all of these cases, and claim construction did not necessarily precipitate settlement. In short, not all of these cases would be appealed even if interlocutory

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129. *Forum Shopping*, *supra* note 3, at 901–03.

130. These are the cases that were reported to the Administrative Office of the Courts as terminated during this period. The Administrative Office maintains statistics on the ninety-four district courts and their dockets.

131. Procedural mechanisms for resolution include transferral, settlement, consent judgment, jury verdict, and verdict on motions before trial.

132. Resolution can occur before defendants are joined, without court action, by way of a judgment on a motion, after pre-trial conference, or during or after a trial.

133. *Forum Shopping*, *supra* note 3, at 913.

134. Approximately 1200 cases each year settle, and the Federal Circuit currently hears approximately 400 patent appeals from the district courts. If all of the settled cases were also appealed, the court's workload would triple.

135. *Forum Shopping*, *supra* note 3, at 913.

136. Because *Markman* was not decided until 1996, I also looked at the data for 1997–1999, and it was proportional — 25% of all settlements during this three-year period occurred after a judgment on motion or after pre-trial conference.

appeal of claim construction was a matter of right. However, even if half of the cases (150 cases per year) were appealed, it would drastically increase the Federal Circuit's workload. This would amount to a 38% increase in the court's patent case docket. Moreover, 1.4% of the settlements (ninety cases) occurred during or after trial. These cases would almost certainly have been appealed on an interlocutory basis to the Federal Circuit because the parties were so invested that they proceeded all the way to trial. This would result in an additional eighteen interlocutory appeals each year, a 4.5% increase in the Federal Circuit's patent case docket. This data suggests that concern regarding the impact interlocutory appeal would have on the workload of the Federal Circuit is justified.

Although I hypothesize a 42.5% increase in the number of patent cases appealed if interlocutory appeals are accepted, not all appeals are created equally. Interlocutory appeals limited to claim construction issues, based upon a limited record, are not likely to be as complex or time-consuming for the court as standard post-trial patent appeals in which the gamut of appealable issues are raised. If a claim construction appeal takes less time relative to the appeal of an entire case, then the increase in the court's docket, as measured by the number of case appeals, is not an accurate prediction of how much this will increase the workload of the court. While the docket may increase by 42.5% these cases may not result in a corresponding 42.5% workload increase. Even if claim construction appeals are less time-consuming, the magnitude of the workload increase is likely high enough that concern is justified. However, the impact on the litigants and the district courts of the high reversal rate of claim construction and the inability to obtain expedited appeal of this issue justifies similar concern. Many patent trials utilize improper claim constructions, necessitating wasteful retrial.[137]

There is a compromise solution. Permitting interlocutory appeal of all claim construction issues would overburden the Federal Circuit. Refusing all interlocutory appeals leaves almost no ability to obtain expedited appeal on claim construction, which overburdens the district courts and deprives the litigants of speedy justice. The Federal Circuit

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137. Moreover, since patent holders are often engaged in litigation against more than one competitor to enforce their patent rights, early finality regarding claim construction could also reduce litigation against multiple parties. For example, patent holder, P, sued infringer I_1. Then, the case settles or is otherwise resolved prior to Federal Circuit resolution of claim construction due in large part to the fact that appeal to the Federal Circuit is not permitted until too late in the game. This litigation against I_1 then does not provide other competitors notice of permissible behavior. Other suits may be filed by P against other infringers, I_2, I_3, I_4, etc. Until one of the suits is finally resolved by the district court in a manner appealed to the Federal Circuit, there will continue to be uncertainty regarding the claim scope. In this way, too, the current uncertainty increases litigation.

need not, however, grant interlocutory appeal to every claim construction ruling. The Court could adopt a policy of granting interlocutory appeal of claim construction issues only after a grant of summary judgment of infringement or non-infringement or at some other defined stage of the litigation proceedings. Rather than grant or deny interlocutory appeal on a case-by-case basis, which would flood the Federal Circuit with such requests, a blackletter ruling in which the court articulated the limited circumstances where such appeals were justified would strike the appropriate balance.[138] In addition to the efficiency benefits, permitting interlocutory appeals after summary judgment rulings would be fairer to the parties because it would permit the parties then to present infringement evidence on the correct claim construction to the fact finder. This would avoid the *Exxon* effect having the Federal Circuit adopt a claim construction upon which no infringement evidence was admitted during trial and then decide infringement.[139]

If the Federal Circuit maintains its blanket refusal to entertain interlocutory appeals on claim construction, a statutory mandate from Congress may be the only means of achieving some degree of reasonableness in this process. Some congressmen believe that the Federal Circuit's workload is less than the workload of many regional

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138. I am not suggesting that the Federal Circuit adopt a certiorari style of deciding whether particular cases are worthy of early appeal. The court would be better off deciding the claim construction appeals that the parties want decided rather than debating the petitions themselves. A blackletter rule limiting interlocutory appeal to decisions on summary judgment ought to be sufficiently definitive.

139. *See supra* notes 56–59 and accompanying text.

circuits.[140] Hence, a statute to impose a right of appeal regarding claim construction could be well received in Congress.

V. CONCLUSION

Although there has been considerable speculation on the abilities of judges and juries to resolve patent cases, most criticism focuses on the inability of lay juries to comprehend technically complex patent cases. Little attention and no empirical study has dissected or analyzed whether district court judges are the appropriate alternative. This empirical study of the Federal Circuit's *de novo* review of district court claim constructions leaves little doubt that the present system of adjudication is flawed. The 33% reversal rate of district court claim constructions suggests that judges are not, at present, capable of resolving these issues with sufficient accuracy. This infuses the patent system with a high degree of uncertainty until the Federal Circuit rules on claim construction. Rather than choosing between accuracy and certainty, this Article suggests that the patent system would be best served by a compromise between the two. Expedited appeals of a limited number of claim construction issues would strike the appropriate balance.

Ideally, the solution lies in increasing the accuracy at the trial level. More research needs to be done on alternative methods of trial level resolution whether by blue ribbon juries,[141] specialized trial courts,[142]

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140. During the consideration of appointments to the Federal Circuit, some Congressmen have suggested that the Federal Circuit workload is not high enough to warrant eleven judges. *See, e.g.*, 146 CONG. REC. S4261–02 (May 23, 2000) (citing Grassley report of March 30,1999) ("In fact, the current status of the circuit actually supports the argument that the court could do its job with a smaller complement of 11 judges.").

> The Federal Circuit [has] . . . the lowest caseload in America-has the lowest terminations per judge of any circuit court of appeals. It has a 16-percent decrease in overall caseload, with a clear recommendation from the Grassley subcommittee report that there is not a need to add another judge to this circuit. I suggest that we not approve this judge, not because he is not a good person but because we don't need to burden the taxpayers with $1 million a year for the rest of his life to serve on a court that doesn't need another judge. In fact, they could probably get by with two or three fewer judges than they have right now and still have the lowest caseload per judge in America.

Id. (Senator Sessions). My own experience with the Federal Circuit, having clerked for two years for the Honorable Glenn L. Archer, is that the judges of the Court are extremely hard-working and the complexity of the patent cases that are appealed makes quantifying the Court's workload based on number of cases an inappropriate measure of workload. My previous empirical research substantiated that patent cases are among the most complex of all civil cases. *See Forum Shopping*, *supra* note 3, at 933.

141. *See, e.g.*, Davin M. Stockwell, *A Jury of One's (Technically Competent) Peers?*,

specialized trial court judges,[143] or greater incorporation of special masters.[144] Until this can be achieved, the Federal Circuit should mitigate the damage to the patent system by allowing parties, under limited circumstances, access to an expedited appeal regarding claim construction issues.

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21 WHITTIER L. REV. 645 (2000) (arguing in favor of technical qualifications for jurors in patent cases); Franklin Strier, *The Educated Jury: A Proposal for Complex Litigation*, 47 DEPAUL L. REV. 49 (1997) (proposing use of educated jurors in patent litigation because lay jurors are ill-equipped to deal with the complexity of the issues being tried).

142. *See Forum Shopping*, *supra* note 3, at 932–34 (discussing the benefits that could be achieved by a specialized trial court); Pegram, *supra* note 126, at 766 (2000) (arguing in favor of giving the Court of International Trade parallel patent case jurisdiction with the district courts).

143. *See* ADVISORY COMM'N ON PATENT LAW REFORM, REPORT TO THE SECRETARY OF COMMERCE (August 1992) (discussing designation of patent cases to patent "expert" judges or designating a single judge in each district to hear all patent cases). *Cf.* Edward V. Di Lello, Note, *Fighting Fire with Firefighters: A Proposal for Expert Judges at the Trial Level*, 93 COLUM. L. REV. 473, 490–91 (1993).

144. *See* Kenneth R. Adamo, *Get on Your Marks, Get Set, Go; Or And Just How Are We Going To Effect Markman Construction In This Matter, Counsel?*, *in* PATENT LITIGATION 2000, at 175, 205 (PLI Patents, Copyrights, Trademarks and Literary Property Practice Course, Handbook Series No. 619, 2000) (suggesting that the increased use of special masters to construe patent claims has gained favor with the district courts and has been used extensively).

ARTICLE SUBMITTED BY JOHN B. PEGRAM, SENIOR COUNSEL, NEW YORK OFFICE, FISH & RICHARDSON, P.C., ENTITLED "SHOULD THERE BE A U.S. TRIAL COURT WITH A SPECIALIZATION IN PATENT LITIGATION?"

Should There Be a U.S. Trial Court With a Specialization in Patent Litigation?

John B. Pegram[1]

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1 Principal, Fish & Richardson P.C., New York, NY; Past Chair, AIPLA Committees on Federal Litigation, and International and Foreign Laws. Portions of this Article are abstracted from or based on the author's paper, *Should the U.S. Court of International Trade Be Given Patent Jurisdiction Concurrent with that of the District Courts?* 32 HOUSTON L. REV. 67 (1995), which contains additional citations to sources. The opinions expressed in both papers are those of the author, who thanks his colleagues in other countries for their helpful assistance in his education regarding foreign patent litigation and apologizes for any errors in his understanding. © John B. Pegram 2000, and Houston Law Review & John B. Pegram 1995.

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I. INTRODUCTION

In an ideal patent system, a business person would be able to read a patent and understand its scope of protection, assume that it was valid and enforceable, and reasonably evaluate it, for example, in terms of a reasonable royalty. Because real patent systems cannot reach that ideal,

they must provide other means for deciding those issues, primarily through courts.

Patent interpretation and enforcement in the United States is performed by an unusual combination of one of many district courts of general jurisdiction, with the possibility of an appeal to the semi-specialized Court of Appeals for the Federal Circuit. In contrast, many other major industrial nations have specialized patent trial courts or specialized patent panels.

Should there be a U.S. trial court with a specialization in patent litigation? Today, the attitude towards specialized courts has become more favorable than ever before, both internationally and in the United States.

This Article considers some of the existing and proposed specialized courts, including the author's proposal that the United States Court of International Trade ("CIT") be given parallel patent case jurisdiction with the district courts. That court would have a greater opportunity to develop an expertise in patent litigation than most district courts. Jury trials would be available. The CIT does not have to deal with the priorities accorded criminal litigations, which interfere with patent litigation in the district courts. Perhaps the greatest strength of this proposal is that it is doable. No new court or courthouse would be required for its implementation. As a result, there would be no significant initial expense.

Parts II and III of this Article describe relevant portions of the existing United States federal court system and administrative agencies dealing with patent issues. Part IV discusses examples of existing and proposed specialized patent courts in other jurisdictions, and some specialized courts in the United States. Part V outlines the author's CIT proposal, detailing statutory amendments appropriate for its implementation. Part VI evaluates the CIT Proposal and other suggestions for improving patent enforcement, with reference to prior studies of specialized courts.

II. U.S. Courts Having Patent Jurisdiction

A. *Background*

The use of district courts to adjudicate patent disputes was a wise decision when it was instituted 200 years ago. Few patent litigations were likely. Travel and communication was exceedingly difficult by the standards of the year 2000. Patent Law was not particularly complex and much of the technology was likely to be understandable to farmer-jurors. In the year 1800, the total federal judiciary of the United States comprised 17 district court judges and six Supreme Court justices who—in

addition to sitting on that court—traveled around circuits, sitting with district judges as the Circuit Courts of Appeals.

The federal judiciary in 1900 comprised 67 district judges, 28 court of appeals judges, and nine Supreme Court justices, together with six District of Columbia Supreme Court and three Court of Claims judges, all appointed under Article III of the Constitution, and one Article I territorial court judge. The total number was 114.

During the 20th Century, the federal courts of general jurisdiction continued to grow in terms of numbers of judges and level of activity. During this period, a second tier of judges developed and the role of magistrate judges in the district courts expanded to encompass pretrial management, deciding non-dispositive motions and the preparation of recommended decisions in civil actions when requested by a district judge. By 1999, there were 848 regular judgeships plus 273 senior judges in Article III courts, 46 judges of Article I courts, and many magistrate judges and bankruptcy judges.

Additional federal courts of limited jurisdiction were proposed. Some were established. There was a short-lived Article III Commerce Court in 1910–1913. The Court of Customs Appeals was established in 1909, became the Court of Customs and Patent Appeals ("CCPA") in 1929, and became an Article III court in 1958. It was a five judge court which sat *en banc* to hear appeals from the Customs Court (which later became the article III Court of International Trade ("CIT") discussed further below) and from the Patent Office. More than one proposal was made for a trial-level Patent Court.

B. *United States District Courts*

The over 90 United States district courts (one to four districts in each state and Puerto Rico) are trial courts with both civil and criminal jurisdiction. Like all federal courts, their jurisdiction is limited by the Constitution's allocation of certain powers to the states and the federal courts' derivation of jurisdiction from Acts of Congress.

The United States district courts have exclusive, original jurisdiction "of any civil action arising under any Act of Congress relating to patents."[2] That jurisdiction includes actions for patent infringement, except claims for compensation for infringement by or on behalf of the U.S. government, which are within the exclusive jurisdiction of the U.S. Court of Federal Claims.

2 28 U.S.C. § 1338(a). *See also* 28 U.S.C. § 1331 ("The district courts shall have original jurisdiction of all civil actions arising under the Constitution, laws, or treaties of the United States.")

All of the claims and defenses between parties and relating to a patent usually must be brought in the same district court action. The three major types of defenses are noninfringement, invalidity and unenforceability. Once accused of infringement, the accused party need not await a civil action by the patent owner, but may bring a declaratory judgment action in a federal district court to resolve the dispute.

The principal judicial officers in the district courts are the over 600 United States district judges, appointed by the President pursuant to Article III of the Constitution. In addition, over 270 judges who have retired from active status continue to serve full or part time as senior judges.[3] Cases in the district courts are almost always before a single active or senior district judge, who can exercise the full adjudicative authority of the court.

In addition to the district judges, each district has one or more magistrate judges, appointed by the district judges for a renewable, fixed term. They are not Article III judicial officers, therefore, their powers are limited. Patent attorneys frequently appear before a magistrate designated by a district judge to hear and determine non-dispositive pretrial matters, subject to reconsideration by a district judge. Magistrates may also preside at jury or non-jury civil trials with the consent of the parties and designation by the district court.

In the year ended September 30, 1999, 2,318 patent cases were filed in the United States. The number filed has steadily grown since 1995, when 1,723 patent cases were filed. The number of patent cases tried, however, has remained steady at about 100. Only about 4.5% reach trial; the rest being settled or resolved by decision on a motion.[4]

1. Trial by Jury

While the perception is that the use of jury trials in patent litigation is frequent, is growing and increases cost; in fact, less than three percent of all U.S. patent cases are decided by a jury trial, the number of patent jury trials has leveled off and jury trials are often helpful in controlling the cost of patent litigation.

For example, the Federal Circuit and the Supreme Court limited the role of the jury in *Markman,* by making it clear that patent claim interpretation is to be by the court and is subject to *de novo* review on ap-

3 The Administrative Office of U.S. Courts estimates that the senior judges perform 15 to 17 percent of the work of the federal judiciary.

4 1999 Annual Report of the Director of the Administrative OFFICE OF THE U.S. COURTS, Tables C2, C2A & C4 [hereinafter "1999 ADMIN. OFFICE REPORT"], available at http://www.uscourts.gov/

peal.[5] *Warner-Jenkinson* and its progeny have alerted counsel and the courts to legal thresholds which must be passed before factual issues under the doctrine of equivalents are presented to the fact-finder.[6]

Further, the increased use of juries in patent litigation is—in part—a response to the delay problems in the U.S. district courts. The presence of a jury forces simplification and acceleration of trials once they begin, and is likely to reduce interruptions. A verdict is rendered promptly at the end of the trial. The availability of a fast and fair bench trial in a specialized court might reduce the demand for jury trials or make trial of disputed issues a reasonable option in more cases.

A consensus seems to be developing that jury trial of patent cases is not likely to be completely eliminated. Instead, the courts will continue to more clearly define and limit the right to jury trial in patent cases with respect to various issues. Jury trials are now available in the CIT and would be available in patent trials in that court under the author's proposal.

C. *U.S. Court of Appeals for the Federal Circuit*

The last major change in the federal court system was the formation of the United States Court of Appeals for the Federal Circuit. It was established by the Federal Courts Improvements Act, which merged the existing Court of Customs and Patent Appeals ("CCPA") with the appellate division of the Court of Claims, effective October 1, 1982. The major impetus for its creation was the recognition in Congress and judicial administration circles of the lack of uniform application of the patent law by the various regional Circuit Courts of Appeals, and the need to improve the stability of patent law. The Supreme Court had observed that there was a "notorious difference" between the standards of patentability applied by the Patent Office and the courts,[7] and there were significant divergences between the regional courts of appeals which led to rampant forum shopping. Another important factor in creation of the Federal Circuit was the promotion of the proposal by a group of prominent corporate patent attorneys.

Recognizing the past antipathy to specialized courts, and to patent court proposals in particular, the Federal Circuit was not created as simply a patent appeals court. It was given additional other jurisdiction so that it was not limited to a single field. The Federal Circuit obtained its appellate jurisdiction from three sources: (1) the appellate level of the former Court of Claims, (2) the Court of Customs and Patent Appeals and (3) the

5 *Markman v. Westview Instr., Inc.*, 517 U.S. 370 (1996), *aff'g* 52 F.3d 967 (Fed. Cir. 1995) *(en banc)*.
6 *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997).
7 Graham v. John Deere & Co., 383 U.S. 1 (1966).

patent jurisdiction of the regional Courts of Appeals, thereby encompassing substantially all patent appellate jurisdiction plus jurisdiction in such other fields as government claims, international trade and taxes.

The CCPA's principal jurisdiction had been over appeals from decisions of the Patent and Trademark Office ("Patent Office"), which related to applications for patents and trademark registrations, and decisions of the Court of International Trade (formerly the Customs Court), which related primarily to actions against the federal government under the Tariff Act. The CCPA also had jurisdiction over appeals from the United States International Trade Commission ("ITC"), including appeals from ITC decisions on complaints for unfair competition involving importation of goods infringing a U.S. patent or made by a process patented in the United States.

The Court of Claims' principal, pre-merger jurisdiction was a variety of types of claims against the United States for compensation, including exclusive jurisdiction over claims seeking compensation for use or manufacture of a patented invention by or for the United States.

As a practical matter, the ability to negotiate establishment of the Federal Circuit was greatly enhanced by the fact that it and the new trial level Claims Court (now the U.S. Court of Federal Claims) were formed out of the old Claims Court and the CCPA. No new judgeships were required and the new courts could occupy the building which their predecessors had occupied.

While Congress expected the Federal Circuit to have "adequate time for thorough discussion and deliberation,"[8] twelve years later Judge Rich described that idea as "quaint."[9] The Federal Circuit's busy docket permits only limited time for consideration of each appeal. In a typical month, a Federal Circuit judge receives about 2000 pages of briefs and an average of more than one new appeal every business day. Patent litigation is only a small part of the Federal Circuit's jurisdiction, accounting for less than 20% of the caseload, but requiring a somewhat larger percentage of the judges' time due to the relatively high level of complexity of patent cases.

III. Administrative Agencies Having Patent Jurisdiction

A. *United States Patent and Trademark Office*

United States patents are granted after examination by the U.S. Patent and Trademark Office ("USPTO"), a part of the Department of

8 S. Rep. No. 275, 97th Cong., 2d Sess. 7 (1981), *reprinted in* 1982 U.S.C.C.A.N. 17.
9 Giles S. Rich, *My Favorite Things,* 35 IDEA 1, 9-10 (1994).

Commerce. The USPTO has no direct role to play in patent infringement actions. Patent revocation, as distinguished from the defense of invalidity, has never been a significant feature of the U.S. patent system.

Unlike the patent granting procedure in some countries and the USPTO's own trademark registration procedure, there is little opportunity for third parties to participate in patent proceedings in the USPTO. There is no patent opposition procedure. Members of the public are permitted to file a protest against a pending application or simply submit prior patents and publications; however, the USPTO rules do not permit further participation in patent applications by third parties. The U.S. Patent Law permits third parties (as well as patent owners) to request reexamination of patents, which may lead to cancellation of claims; however, in practice, that procedure favors the patent owner and has had little effect on the resolution of patent disputes. Recently, the reexamination procedure has been modified to permit greater participation by third party requesters, as recommended in the 1992 Report of the Advisory Commission on Patent Law Reform,[10] however, it remains to be seen whether such *inter partes* reeexamination will be useful.

The other type of proceeding in which a patent's grant may be reconsidered by the USPTO is a reissue application, which can only be commenced by the patent owner to correct errors. While a third party cannot initiate a reissue proceeding, such a proceeding which is open to the public may provide an opportunity to file a protest or request reexamination. Concurrent reissue and reexamination proceedings may be merged by the USPTO.

The USPTO may institute *inter-partes* interference proceedings when two or more applicants claim the same invention. A person who has a patent or a pending application in which the same invention is claimed as in a patent of another party may request the USPTO to declare an interference. Other patentability issues also can be raised in interference proceedings.

B. *U.S. International Trade Commission*

The U.S. International Trade Commission ("ITC") is an independent agency created by Congress to administer laws regulating trade with the United States. One such law is section 337 of the Tariff Act, which includes authority for the ITC to bar importation of articles which infringe a U.S. patent, or of articles made by a method which infringes a

10 The Advisory Commission on Patent Law Reform was formed by the Secretary of Commerce in 1990 and delivered a report of approximately 200 pages. ADVISORY COMM'N ON PATENT LAW REFORM, REPORT TO THE SECRETARY OF COMMERCE [hereinafter "ADV. COMM. REPORT"] (August 1992).

U.S. patent, provided that a industry relating to the protected articles or is being established in the United States.

Although the ITC has no authority to award damages for infringement, its non-jury procedure under section 337 is considered particularly effective by patent owners faced with foreign origin infringement because there are no geographic or personal jurisdiction limits, the ITC's exclusion orders are *in rem,* and the ITC maintains a rapid schedule of one year to decision or, at the most, in "more complicated" cases, within eighteen months.

While a full range of discovery techniques is available in ITC proceedings, ITC discovery differs from that in the usual district court case because of the participation of an ITC staff Investigative Attorney and because it must be completed rapidly in order to permit briefing, a hearing and decision by the Administrative Law Judge within a nine month period for issuing an Initial Determination.

IV. Specialized Courts—Here and Abroad

A. *Foreign Patent Litigation Examples*

The current and proposed patent adjudication systems of other countries and regions are of interest both because they provide useful examples, and because the other systems will be competing with the U.S. courts to be the preferred place of patent litigation in the coming years.

1. England

a. United Kingdom and European Patent Offices. Patents can be obtained in the United Kingdom by either of two routes. National patents are granted by the U.K. Patent Office. In addition, the European Patent Office ("EPO") examines patent applications and issues European patents which become the equivalent of national patents in the member nations designated by the applicant. Both the United Kingdom patent law and the European Patent Convention permit opposition to a patent by a third party during a limited period following patent grant. Oppositions in the EPO have proven to be very slow. Efforts are now being made to expedite that procedure.

After a U.K. patent or a European patent designating the United Kingdom is issued, questions of the patent's validity in the United Kingdom are usually raised in infringement litigation in the courts. While there is a procedure for resolution of patent infringement disputes by the U.K. Comptroller of the Patent Office, that procedure is rarely used, pos-

sibly because it requires the agreement of the parties. Validity can be placed in issue by an application for revocation of the patent before the Comptroller, in a declaratory judgment action or as a defense in an infringement action.

b. English Courts. Patent litigation in English courts has a number of similarities to U.S. litigation.[11] The English court procedure is based on common law principles, such as reliance upon advocacy and cross-examination, rather than the civil law approach of an investigating judge. Juries, however, are not available in patent cases (or in most other civil litigation).

Traditionally, the English legal and patent professions have had a different structure from those in the United States. Barristers are the specialists in oral advocacy. Practicing individually and sharing chambers with other barristers, they have had the exclusive right to appear in the higher courts, including the Patents Court. Solicitors, who can and do practice in firms, prepared the papers and pursued the discovery. Chartered patent agents, whose education is usually in engineering or science rather than in law, usually prepared patent applications and provided technical expertise to the litigation team. Solicitors and chartered patent attorneys now can appear in the Patents County Court. The Law Society (solicitors) and the Chartered Institute of Patent Agents have made application to the Lord Chancellor's Advisory Committee for litigator's rights in the High Court, which includes the Patents Court.

(1) Patents Court (High Court). Until ten years ago, patent trials took place only in the Patents Court, which is a part of the High Court's Chancery Division. Typically, I understand, at least one judge is assigned to sit regularly as Patents Judge in the Patents Court and several other chancery judges may be designated to hear patent cases. Appeals from both the Patents Court and the new Patents County Court (discussed below) are to the Court of Appeal. Further appeal to the House of Lords is at the discretion of that court or the Court of Appeal.

(2) Patents County Court. In 1990, the United Kingdom launched a new tribunal, the Patents County Court ("PCC"), which was intended as a small claimants' court, suitable for disputes between small and medium-sized entities. The experience with this new court is of particular interest because it was created in response to concern over the cost of litigation in the Patents Court and because a small claims court for patent disputes has been proposed in other countries, including the United States. Called a "County Court" because the PCC is administratively

11 Because there are differences between the court system of England and Wales, and those of Scotland and Northern Ireland, I refer to England, rather than to the United Kingdom.

connected to the County Court system, the jurisdiction of the PCC has neither of the usual County Court limits of amount in dispute or of geography. It has jurisdiction in all of England and Wales.

Barristers, solicitors and chartered patent agents (who can now call themselves "chartered patent attorneys") all have a right of audience in the PCC. Thus, a party may be represented by any one or a combination of these professions.

In his Foreword to The Patents County Court Users' Guide, the Lord Chancellor wrote, "I envisage that the Patents County Court will, by applying cheaper, speedier and more informal procedures to patents litigation, ensure that small- or medium-sized enterprises, and individuals, are not deterred from innovation by fear of the cost of the litigation which can be involved in safeguarding their rights."[12] Ways in which the PCC has sought to accomplish those goals include the imposition of strict time limits, a requirement of specificity in pleadings, and limitation of discovery, which usually requires leave of the court. As a result of the use of written evidence in chief, which may be read by the judge in advance of trial unless a party promptly objects, and other preparations, the average length of a trial is twelve hours, or two and a half days.

There has been controversy over whether the PCC has been a successful experiment. Certainly, when so many changes are made at once, there is bound to be some dissatisfaction. The very efficiency the PCC was intended to achieve must come at the expense of the practitioners who may no longer be required or whose billable hours have been reduced.

When a party decides to approach the PCC litigation as a High Court case, a particular, serious area of difficulty has arisen. One solicitor summed it up as follows: "No doubt cases can be run entirely by solicitors and patent agents on a low budget, especially if the litigants are of the same size and adopt a similar approach. However, if one side decides to raise the stakes by using senior counsel (barrister), the other side may well feel that it ought to follow suit."[13]

Perhaps the most successful result of establishing the PCC has been that its procedures, and its very existence, have encouraged the development of streamlined procedures in the Patents Court; an excellent example of the value of providing a degree of competition between courts.

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12 PATENTS COUNTY COURT USERS' GUIDE 3–4 (1990) [hereinafter PCC USERS' GUIDE], *reprinted in* AIPLA ALTERNATIVE DISPUTE RESOLUTION AND INTELLECTUAL PROPERTY COURSEBOOK Z (1993).

13 *Id.* at 35.

2. *Japan*[14]

In Japan, patent infringement disputes are decided by the courts; however, until recently, issues of patent validity have been within the exclusive jurisdiction of the Japan Patent Office ("JPO").

Japan has limited the number of attorneys-at-law (*bengoshi*) admitted to practice in its courts by admitting a relatively small number of persons each year to the Judicial Research and Training Institute, which provides training for all judges, prosecutors and private litigators. As a result, there are probably less than 20,000 attorneys-at-law in Japan. Patent attorneys (*benrishi*) prosecute patent applications and have the right to appear in the Tokyo High Court in appeals from the JPO. Like the British chartered patent attorneys, the *benrishi* are currently seeking broader litigation rights.

a. Japan Patent Office. The appeal examiners in the JPO are responsible for deciding a variety of trials (appeals) involving patent applications and issued patents. There are approximately 400 appeal examiners who sit collegially in groups of three or five. Most are appeals against rejection of an application. Boards of Appeal also hear oppositions to patents, which now are conducted post-grant.

Any interested person may request a trial for invalidation of a patent. The principal grounds for opposition or invalidation are: illegal amendment or illegal correction introducing new matter, prior art grounds and defective description.

b. Japanese Courts.[15] The principal trial courts in Japan are the fifty district courts, which are courts of general jurisdiction for a region, usually a single prefecture. Most district court cases are handled by a single judge, however, patent infringement is one of the categories requiring collegial decision by three judges. The Tokyo District Court, for example, has a total of over 60 civil divisions, each of which usually has three judges. In 1999, the number of judges assigned to intellectual property divisions in Tokyo District Court was increased to 12 and the number in such divisions in the Osaka District Court was increased to five. Those two courts and the Tokyo High Court also have technical assistants (*saibansho chosakan*), who are mid-level examiners who have resigned

14 *See generally* JAPANESE PATENT PRACTICE: PROSECUTION/LICENSING/LITIGATION (AIPLA 1994) [hereinafter "AIPLA JAPAN COURSEBOOK"].

15 *See* Robert Barry, *Litigation in the Patents County Court: A Case Study*, 47 PATENT WORLD 31, 35 (Nov. 1992).

15 *See generally*, COURT SYSTEM OF JAPAN (Supreme Court of Japan, 1992); OUTLINE OF CIVIL TRIAL IN JAPAN (Supreme Court of Japan, 1990); AIPLA JAPAN COURSEBOOK, *supra* note 14.

from the JPO to work at the court, but can be expected to return to the JPO after a few years.

Patent infringement cases can be brought in the district where defendant's head office is located, or where infringement occurred, or at the location of plaintiff's head office when plaintiff demands compensation for damages. Under a recent amendment to the Japan Civil Code, either the Tokyo or Osaka District Court can exercise jurisdiction in a patent infringement case, in addition to the regional district court. Approximately 75% of patent infringement cases is brought in the Tokyo or Osaka courts because of their intellectual property divisions.

Until very recently, validity could not be raised as a defense in a Japanese district court proceeding, because the JPO had exclusive jurisdiction over invalidity proceedings. The district courts have considered the prior art, however, for the purpose of construing the patent claims. In the April 11, 2000 decision in the litigation between *Fujitsu* and *Texas Instruments,* a Petty Bench of the Japan Supreme Court concluded that:

> it should be possible for the court which is hearing a patent infringement case to decide whether or not it is clear that grounds for invalidity exist, and as a result of such deliberation, if grounds for the invalidity clearly exist against the disputed patent, requests for an injunctive relief and damages award against the patent should not be allowed as an abuse of patent rights.[16]

The eight High Courts are the first level of appeal in patent infringement litigation. They each have territorial jurisdiction over appeals originating in their region. In a *Kōso* appeal, the appellate court inquires into the facts in the same way as the district court, the appeal being in essence a continuation of the original trial, similar to an American *de novo* proceeding. A *Jōkoku* appeal is limited to questions of law.

The Tokyo High Court has exclusive original jurisdiction to review decisions of quasi-judicial agencies, including decisions of the JPO. Since the JPO in the first instance decides issues of both patentability of applications and validity of issued patents, and many infringement actions are filed in the Tokyo region, the Tokyo High Court plays an especially important role in the Japanese patent system.

The Supreme Court sits in either Petty Benches of five justices, to which every case is initially assigned, or as the Grand Bench of at least nine of the fifteen justices, to which questions of constitutionality are referred. In civil and administrative cases, an appeal to the Supreme Court may be lodged on grounds of a violation of the Constitution, or any violation of law or ordinance which is obviously material to a judgment. In-

16 Case No. 1998 (o) 364.

stead of law clerks, experienced district judges serve the Supreme Court as Judicial Research Officers. At least one such officer has experience in a district court IP division.

3. European Proposals

Recently, consideration of proposals for improved enforcement of patents in Europe have proceeded on two fronts: within the European Union ("EU") institutions and in discussions of a proposed revision of the European Patent Convention. It appears likely that Europe is moving towards establishment of a single European patent court with two chambers, first instance and appellate.

a. The Current European Patent System and the Failure of the Luxembourg Convention. At present, Europe has parallel national patent issuing systems and a multi-national system for the issuance by the European Patent Office ("EPO") of patents pursuant to the Convention on the Grant of European Patents of 1973 ("European Patent Convention" ("EPC") or "Munich Convention"). The EPO has hardly any role after it grants a European Patent; the various member nations have jurisdiction over post-issuance enforcement and invalidation proceedings. The one exception to exclusively national, post-grant jurisdiction is the availability of post-grant opposition in the EPO within nine months of grant of a European Patent. That has been a slow procedure.

In 1975, members of the European Community signed the Luxembourg Convention on the Community Patent ("Community Patent Convention" ("CPC") or "Luxembourg Convention"). It would have created a Community Patent for all of the EU and a court system for enforcement of such patents. The CPC, however, was never ratified and it is now generally recognized that it never will be. As the Commission of the European Communities ("EC Commission") recently explained, one of the principal reasons for the failure of the CPC was that "national judges would have been able to declare a Community patent invalid for the entire territory of the Community. This aspect aroused the distrust of interested parties (potential users of the Community patent), who considered it a major element of legal uncertainty."[17]

b. The New Community Patent Proposal. Official recognition of the importance of effective patent enforcement arrived in Europe in the form of the *Green Paper on the Community patent and the European patent system* published in June 1997 by the EC Commission, which is the

17 Commission of the European Communities, Proposal for a Council Regulation on the Community Patent, Explanatory Memorandum, 1.1 (COM(2000) 412 final). *See id.* 2.4.5 *et seq.*

EU's administrative body.[18] The *Green Paper* launched wide discussion of possible improvements in the patent system within the EU, including discussion of a new proposal by the EC Commission for the EU to establish a Community Patent system by EU Council regulation, rather than by a treaty, including consideration of which courts should enforce such patents.

One long discussed question which had to be addressed was whether the EU should have its own patent office to issue and administer Community patents. The EPO is peculiar in that it is an independent organization, created by the EPC, and not subject to control or supervision by the EU. While all EU members are members of the EPO, the EPO has several other non-EU members, for example Switzerland. Out of discussion of the *Green Paper,* however, came recognition that the EPO should play a major role in connection with issuance of Community Patents.

On February 5, 1999, the EC Commission issued a Communication proposing adoption of Community Patent system and providing a broad outline. Leaders of the EU member states endorsed introducing a Community Patent without delay at the March 23-24, 2000 meeting of the European Council. The proposal was fleshed out this past summer in a July 5, 2000 press release and the *Proposal for a Council Regulation on the Community Patent,* dated August 1, 2000.[19]

The Commission recommends adoption of a relatively simple and easily achieved Community Patent system by Council regulation, set forth in detail the August 1, 2000 proposal. An application for a Community Patent would be made by designating "EU" in an European Patent application to the EPO. Amendment of the EPC to permit the EU to become a member would be required.

A Community Intellectual Property Court ("Community IP Court") would be established with exclusive jurisdiction over Community Patent infringement and validity disputes. The Commission's proposal did not include appeals to this court from the EPO Boards of Appeal, whose decisions would continue to be final. The Community IP Court would have two chambers, first instance and appellate, and would be under the European Court of Justice. The August 1, 2000 Community Patent regulation proposal does not include details of the proposed Court.

While the EC Commission's implementation goal of establishing a Community Patent by the end of 2001 may be over-optimistic, this pro-

18 COM(1997) 314 final of June 24, 1997, available at http://europa.eu.int/comm/internal_market/en/intprop/indprop/paten.pdf

19 Documents available at http://europa.eu.int/comm/internal_market/en/intprop/indprop/index.htm

posal and the EPC court protocol proposal (discussed next below) already have gained considerable support and momentum.

c. The Proposed EPC Court Protocol. EPO members has been engaged in a project for revision of the EPC since 1998. An Intergovernmental Conference ("IGC") established a committee to prepare a proposal for an optional protocol to the EPC which would permit EPO members to submit European patents designating that country to the jurisdiction of a European Patent Court. The draft EPC revision, to be considered at the European Patent Convention diplomatic conference in November 2000, expressly permits such a protocol. A majority of the protocol drafting committee has proposed a European IP Court with two chambers: first instance and appeals, staffed by national patent judges and legally qualified members of EPO Boards. The minority differs in that it would vest first instance jurisdiction in national patent courts. The proposals appear to contemplate eventual merger of this system with an EU patent court, *i.e.,* the Community IP Court.

B. *Specialized Courts in the United States*

There has always been a mixture of courts of general and special jurisdiction in the United States. Family courts, surrogate's courts, and courts for claims against the government immediately come to mind. The several specialized and semi-specialized federal courts include the Court of Appeals for the Federal Circuit which has a specialization in patent appellate litigation.

Within the past ten years, there has been increased interest in and establishment of specialized business and commercial courts at the trial level. Advantages of such a court have been observed in Delaware. Many states have recently established business and commercial courts or divisions in existing courts, and other states are considering proposals for such courts.

1. State Business Courts

a. Delaware Court of Chancery. For over 200 years, the State of Delaware has had a special court of equity, the Court of Chancery. On its bicentennial, the Chief Justice of the United States, William H. Rehnquist, described and complimented this specialized court. His remarks aptly summarize aspects of the court that are of interest to consideration of a specialized court for patent litigation:

> [T]he Delaware Court of Chancery deserves our celebration, not only as a unique and vibrant Delaware institution, but as an important contributor to our na-

tional system of justice. The Delaware state court system has established its national preeminence in the field of corporation law due in large measure to its Court of Chancery. Because the Court of Chancery, by design, has no jurisdiction over criminal and tort cases—matters which create huge backlogs in other judicial systems—corporate litigation can proceed quickly and efficiently.

. . . . As one scholar has observed, "[t]he economies of scale created by high volume of corporate litigation in Delaware contribute to an efficient and expert court system and bar."

Perhaps most importantly, practitioners recognize that "[o]utside the takeover process . . . , most Delaware corporations do not find themselves in litigation. The process of decision in litigated cases has so refined the law that business planners may usually order their affairs to avoid law suits." This recognition confers on the Court of Chancery one of the highest forms of praise the judiciary can receive.[20]

The patent field could similarly benefit from the availability of a trial court with no jurisdiction over criminal and tort cases to create backlogs, and a volume of patent litigation sufficient to develop an efficient and expert court system. As in the case of the Delaware Court of Chancery, such a court could not only resolve disputes, but also could contribute to refinement of the patent law and trial level patent litigation procedure so that businesses can more readily order their affairs to avoid patent law suits.

b. New Business Courts and Panels. During the 1990s, New York established a Commercial Division in its trial court of general jurisdiction, the state Supreme Court, at several locations including Manhattan. It is considered a great success. Currently, California, Delaware, Illinois, Massachusetts, New Jersey, North Carolina, Pennsylvania, Virginia and Wisconsin also have special courts, divisions or procedures for business litigation. An ABA Business Law Section survey shows that studies are proceeding at various stages in Colorado, Connecticut, Florida, Maryland, Michigan, Minnesota, Mississippi, Ohio and Texas.[21] This development of business and commercial courts appears to have been driven primarily by corporate counsel and business organizations.

2. *Trial Courts Having National Jurisdiction*

There are three specialized U.S. trial courts having national jurisdiction. The one we will principally discuss, the United States Court of International Trade ("CIT"), is an Article III court. The other two were created under the general legislative authority in Article I of the Consti-

20 William H. Rehnquist, *The Prominence of the Delaware Court of Chancery in the Federal-State Joint Venture of Providing Justice,* 48 BUS. LAW. 351 (1992).

21 Ad Hoc Committee on Business Courts of the ABA Business Law Section, *The Status of Business Courts in the United States,* available at http://www.abanet.org/buslaw/buscts/ctsurvey.html

tution and have judges who are appointed for fixed terms: the United States Court of Federal Claims and the United States Tax Court. As noted above, the Court of Federal Claims has exclusive jurisdiction of claims for compensation for patent infringement by or on behalf of the U.S. government. The Tax Court has no jurisdiction under the Patent Law.

a. United States Court of International Trade. The Board of General Appraisers was established in 1890 to supervise appraisements and classifications for customs purposes. It replaced federal trial courts in customs matters in 1909 and became the United States Customs Court, an Article I court, in 1926. In 1956, it became an Article III court and was renamed the United States Court of International Trade ("CIT") in 1980. The CIT currently has all the powers in law and equity of a federal district court.

The CIT has nine active judge positions and can have no more than five judges from the same political party. Usually, the judges sit alone; however, the chief judge has the power to designate a three judge panel to hear and determine civil cases involving the constitutionality or "broad or significant implications in the administration or interpretation of the customs laws." Although the CIT does not have a criminal docket, it has jurisdiction over civil penalty cases in which there is a right to jury trial. From time to time, CIT judges serve on the U.S. courts of appeals and district courts, where they obtain additional experience in jury trials.

While its headquarters is in its own courthouse in Foley Square, New York City, the chief judge may authorize one or more judges and their assistants to preside at a hearing or trial at any port of place within the jurisdiction of the United States. In the interests of economy, efficiency, and justice, the chief judge may also authorize a CIT judge to preside in an evidentiary hearing in any foreign country whose laws do not prohibit such a hearing. Title 28 of the United States Code and the CIT rules contain provisions similar to those governing civil actions in the district courts and expressly provide for jury trials using the jury pool of the district court at the place of trial. Its procedures and rules do not vary substantially from those of the district courts.

V. The CIT Proposal

The solution proposed here for addressing some of the problems of delay, expense, and unpredictability in patent litigation is simple and inexpensive. The U.S. Court of International Trade should be given patent and related claim jurisdiction paralleling that of the district courts. The CIT already is a court within the Federal Circuit. and would continue to

be subject to direct supervision by the Federal Circuit. Its judges are of the same rank as district judges, being appointed under Article III of the Constitution. The CIT can and does hold jury trials where required by law.

Like Delaware's Court of Chancery, which Chief Justice Rehnquist praised for efficiency, the CIT does not have a criminal or tort docket. Unlike the U.S. Trade Representative's proposal several years ago, of a special CIT division with jurisdiction over patent-based section 337 investigations, this proposal does not contemplate a new division or isolation of patent cases. Although its courthouse, chambers, and clerk's office are in New York, CIT judges can and do sit all over the country. Because of its existing international trade docket, the CIT would not be solely a patent court, but its judges would have the potential to develop expertise in patent law through greater exposure to patent cases than the average district judge.

This proposal does not recommend the limitation of CIT patent cases to nonjury trials. Otherwise, it might be necessary to permit any party demanding a jury to opt out of the forum. The CIT already has jurisdiction permitting a demand for a jury trial in penalty cases and has jury facilities in two courtrooms at its courthouse. Its judges occasionally sit, by designation, in district courts where they obtain additional experience in jury trials.

This proposal also would not impose any particular procedure on the CIT in patent litigation or limit its jurisdiction to small claims. The CIT, however, would be expected to develop procedures that would help achieve the objects of the proposal. The fact that the CIT has greater power to adopt its own procedural rules than that of the district courts[22] may simplify experimentation with different procedures.

A. *Statutory Amendments Required for CIT Proposal*

Relatively few statutory amendments would be necessary to implement the CIT proposal. Some suggestions, which should be sufficient, follow.

22 *See* 28 U.S.C. § 2071 (1988) (providing that federal courts generally may adopt their own rules). However, 28 U.S.C. § 2072(a) (1988), imposes general rules on the district courts: "The Supreme Court shall have the power to preserve general rules of practice and procedure and rules of evidence for cases in the United States district courts. . . ." Those general rules are not directly applicable to the CIT and, therefore, the CIT has adopted its own rules paralleling the Federal Rules of Civil Procedure. *See* COURT INT'L TRADE RULES. In addition, 28 U.S.C. § 2641(a) expressly provides that the CIT may provide exceptions to the Federal Rules of Evidence in its rules.

1. Jurisdiction

At first impression, it appears that the place to grant parallel patent jurisdiction to the CIT would be in 28 U.S.C. § 1338, which gives patent and related claim jurisdiction to the district courts. That section, however, is part of the chapter defining the jurisdiction of the district courts. The preferable place is chapter 95, which defines the CIT's jurisdiction. Because the existing jurisdictional grants in that chapter are limited to actions commenced against or by the United States, a new section, which I will call section 1586, should be added.

Plant variety protection litigation is so similar to patent litigation, particularly to plant patent litigation, that it probably should be included in the CIT's jurisdiction. The CIT also should have supplemental jurisdiction, like that of the district courts, over other IP claims and unfair competition claims when joined with a substantial and related claim under its patent and plant variety protection jurisdiction.

There is no need to mention declaratory judgments in section 1586. Sections 2201 and 2202 of Title 28, creating that remedy and providing for relief, are applicable to "any court of the United States," and pursuant to section 1585, the CIT has all the powers in law and equity of a district court.

Thus, I have proposed the following grant of jurisdiction in the new section 1586:

(a) The Court of International Trade shall have the same original jurisdiction of any civil action arising under any Act of Congress relating to patents and plant variety protection as that of the district courts.
(b) The Court of International Trade shall have original jurisdiction of any civil action asserting a claim of unfair competition, or a claim under the copyright or trade-mark laws, when joined with a substantial and related claim under the patent or plant variety protection laws.
(c) Subsection (b) applies to exclusive rights in mask works under chapter 9 of title 17 to the same extent as that subsection applies to copyrights.

The personal jurisdiction rules in the Federal Rules of Civil Procedure do not apply to the CIT, which has nationwide personal jurisdiction with respect to its existing subject matter jurisdiction.

2. Venue, Place of Trial, and Transfer

It is not necessary to enact any provisions relating to CIT venue or place of trial. The relevant district court venue provisions are not stated in exclusive terms and would therefore also cover venue in the CIT. Title 28 of the United States Code already provides that the CIT may conduct a trial or hearing at any place within the jurisdiction of the United States. It also provides for the summons and selection of a jury in the judicial district where the CIT conducts a jury trial.

Title 28 contains three provisions for transfer of cases between district courts, all of which have been employed in patent cases. Consideration should be given to whether similar provisions should permit transfers to and from the CIT. Perhaps the most used provisions are those in section 1404(a), permitting transfers "[f]or the convenience of parties and witnesses, in the interest of justice" to "any other district . . . where it might have been brought." The ability of the CIT to conduct trials and hearings anywhere in the United States appears at first to make transfers for convenience *from* the CIT unnecessary. However, because it is possible that the CIT's ability to travel may be restricted in the future for budgetary reasons, and because transfers may be desirable to consolidate actions, it would be best to provide the CIT with authority to transfer cases to other courts for reasons of convenience.

Incorporating the following paragraph in proposed section 1586 should adequately provide for transfers:

(d) The Court of International Trade, the district courts, and the judicial panel on multidistrict litigation may transfer civil actions within the Court of International Trade's subject matter jurisdiction as defined in this section to or from Court of International Trade in accordance with sections 1404 and 1407, or to the Court of International Trade in accordance with section 1406, as if Court of International Trade were a district court for the purposes of those sections.

3. Relief

Although section 1585 of Title 28 states that the CIT "shall possess all the powers of law and equity of, or as conferred by statute upon, a district court of the United States," section 2643 lists various specific types of relief that the CIT may grant. To avoid any implication that CIT relief in patent or plant variety cases is more limited than that of the district courts, legislation enacting the CIT proposal should include a new subsection 2643(e) providing:

(e) In any civil action under its section 1586 jurisdiction, the Court of International Trade may provide the same kinds of relief as a district court.

5. Appeals

One of the purposes of the CIT proposal is to provide a trial court within the Federal Circuit with patent jurisdiction. Section 1295(a)(5) of Title 28 already provides that the Court of Appeals for the Federal Circuit "shall have exclusive jurisdiction . . . of an appeal from a final decision of the United States Court of International Trade." Some of the provisions for interlocutory appeals from the CIT to the Federal Circuit, however, differ from those relating to district courts. In particular, existing law lacks a provision for review of CIT interlocutory orders relating to injunctions. Therefore, a provision relating to the CIT should be added to section 1292(c), tracking the language of section 1292(a) pertaining to district courts:

The United States Court of Appeals for the Federal Circuit shall have exclusive jurisdiction—

. . . .

(3) of an appeal from an interlocutory order of the Court of International Trade, or of the judges thereof, in any civil action pending in that court under its section 1586 jurisdiction, granting, continuing, modifying, refusing or dissolving injunctions, or refusing to dissolve or modify injunctions, except where a direct review may be had in the Supreme Court.

VI. EVALUATION

A. Specialization Evaluation Issues[23]

There have been a number of published papers regarding specialized courts in the United States, including those by Professor Lawrence Baum,[24] a political scientist, Professor Rochelle Cooper Dreyfuss,[25] a legal scholar, and the present author.[26] In this section, we briefly address

23 This part is abstracted from Pegram, *supra* note 1, 32 HOUSTON L. REV. at 121-35, to which the reader is referred for a more detailed discussion and citations of sources.

24 Lawrence Baum, *Specializing the Federal Courts: Neutral Reforms or Efforts to Shape Judicial Policy*, 74 JUDICATURE 217 (1991).

25 Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1 (1989) [hereinafter "Dreyfuss, Federal Circuit"]. *See also* Rochelle C. Dreyfuss, *Forums of the Future: The Role of Specialized Courts in Resolving Business Disputes*, 61 BROOKLYN L. REV. 1 (Spring 1995); Rochelle Cooper Dreyfuss, *Specialized Adjudication*, 1990 B.Y.U. L. REV. 377.

26 Pegram, *supra* note 1.

some of the issues those papers have identified regarding specialized courts, particularly as they may be relevant to the CIT proposal.

1. Dimensions of Specialization

Professor Baum has suggested a two dimensional analysis of specialization. One dimension is the degree of *concentration* of particular kinds of cases in a single court. The other dimension, *narrowness,* is the extent to which particular kinds of cases dominate a court's work. For example, the United States Supreme Court is very specialized in terms of concentration, because it is the only court at its level. It is very much a generalist court and, therefore, not narrow in terms of the wide range of cases it considers.

There is a long history of resistance to specialization in the U.S. judicial system on grounds of narrowness. The two principal criticisms are isolation and the possibility that a court with narrow jurisdiction would be "captured" by a segment of its constituency. In creating the Federal Circuit, Congress avoided establishment of a Court with a single specialty by giving it appellate jurisdiction in several specialized fields and by requiring the assignment of judges to panels in rotation, rather than assignment based on fields of expertise. The Federal Circuit does not appear to have become isolated or captured by a constituency. We expect that the CIT would be free of those problems for similar reasons.

2. Neutral Virtues

The most common measures of success of a specialized court are what Professor Baum refers to as "neutral virtues." They include greater expertise through assignment to judges who either come to the court with a specialist's understanding or develop such an understanding through service on the court, enhanced efficiency through reduced caseloads in the generalist courts, and assigning the cases to a court which can dispose of them more quickly, and legal uniformity through concentration in a single court.

a. Expertise in Patent Law and Patent Litigation. Patent lawyers, academics and judges appear to agree that judicial expertise in patent law is particularly desirable. In 1981 testimony, Howard T. Markey, then Chief Judge of the Court of Customs and Patent Appeals and subsequently the first Chief Judge of the Federal Circuit, pointed out an advantage of specialization that would be even more aptly applied to a trial court: "[I]f I am doing brain surgery every day, day in and day out, chances are very good that I will do your brain surgery much quicker, or

a number of them, than someone who does brain surgery once every couple of years."[27]

The statistics show that U.S. federal district judges on average have insufficient exposure to patent litigation to develop expertise in patent law and patent litigation. On average, they have only one patent trial every 6 to 8 years, and a few patent cases at a time on a docket of hundreds. The result is what one might expect. Judge Avern Cohn of the Eastern District of Michigan has reported, "[D]istrict judges have to constantly learn and re-learn patent law. They simply cannot keep current with developments in the law."[28]

Clearly, the Federal Circuit has developed patent expertise of a higher average level than that previously found in the regional circuits, as a result to deciding over 200 patent appeals per year. The fact that the Federal Circuit has a principal responsibility for the patent system, rather than for deciding the odd case, contributes to the development of that expertise. Similarly, an expected greater volume of patent cases than most district courts and the CIT's being subject to the Federal Circuit's direct supervision should cause the CIT to develop appropriate expertise in patent law and patent litigation procedures.

b. Technical Expertise. The possibility of developing technical expertise in a United States federal court is a more difficult issue. Both attorneys and judges have suggested a need for such expertise. When patent appeals were still heard in the regional circuits, Judge Friendly of the Second Circuit author of many well-reasoned patent decisions complained:

> This patent appeal is another illustration of the absurdity of requiring the decision of such cases to be made by judges whose knowledge of the relevant technology derives primarily, or even solely, from explanations of counsel and who, unlike the judges of the Court of Customs and Patent Appeals, do not have access to a scientifically knowledgeable staff.[29]

Realistically, the lack of technical expertise among district and circuit judges is unlikely to change significantly. Unlike the United States Tax Court, in which all of the judges have some type of tax experience, it appears unlikely that a substantial number of technically trained judges

27 *Court of Appeals for the Federal Circuit: Hearings on H.R. 24-5 Before the Subcomm. on Courts, Civil Liberties and the Administration of Justice of the House Comm. on the Judiciary,* 97th CONG., 1st SESS. 42–43 (1981).

28 Avern Cohn, *Tenth Annual Judicial Conference of the Court of Appeals for the Federal Circuit,* 146 F.R.D. 205, 372 (1993).

29 *General Tire & Rubber Co. v. Jefferson Chem. Co.,* 497 F.2d 1283, 1284 (2d Cir. 1974) (note omitted) .

would be appointed to the federal bench. Indeed, the Federal Courts Study Committee concluded its examination of how courts handle scientific and technological complexity in litigation by saying that "Because scientific and technological questions arise sporadically, we do not propose regular training for all, or even all new, federal judges; it might be untimely or wasted."[30]

The need for technical expertise may not be as great at the Federal Circuit as at the trial court level. According to Federal Circuit Judge Plager, "the patent law cases . . . that we get . . . tend not to be primarily problems of technology. They tend to be primarily problems of law. . . . [T]he technological side of patent law at the appellate level is less significant than the fundamental legal questions we have to deal with."[31] The Federal Circuit also benefits from the assistance of law clerks with science or engineering degrees, and a central staff of technical advisors. That could be an appropriate model for a trial level court having a patent specialization.

c. Efficiency. Efficient handling of patent litigation can be evaluated in terms of efficient operation of the judicial system and of the patent system. The efficiency objectives of the two systems are not always consistent. This paper addresses efficiency primarily from the point of view of participants in individual patent cases.

Concentration of all patent appeals in the Federal Circuit clearly benefited the efficiency of the judicial system by removing the burden of patent litigation from the regional courts of appeals. Concentration of a number of patent actions in the CIT should lead to similar efficiencies and greater efficiency for participants in those actions.

The statistics show that the Federal Circuit is promptly deciding the average appeal in less than a year from filing. The court is a busy place, with each judge on average receiving a new appeal every day, participating in a decision every day and participating in a patent decision at least once a week. Indeed, Professor Dreyfuss notes, the Federal Circuit may have been "too successful" in the sense that its clarification of patent law and its greater recognition of the statutory presumption of validity may have lead to an increase in judicial resolution of patent disputes.[32] While such a success does not greatly relieve the burdens of the judicial system, it is likely to benefit the patent system and the American economy.

30 FEDERAL COURTS STUDY COMMITTEE REPORT 97 (1990). (The Federal Courts Study Committee was appointed by the Chief Justice pursuant to the Federal Courts Study Act of 1988, Pub. L. No. 100-702, 102 Stat. 4642, 4644).

31 Jay S. Plager, *Tenth Annual Judicial Conference of the Court of Appeals for the Federal Circuit,* 146 F.R.D. 205, 244 (1993).

32 Dreyfuss, *Federal Circuit, supra* note 25, at 24.

d. Uniformity of Decisions. Uniformity of patent decisions is desirable because it leads to predictability. A principal benefit of predictability is that it reduces the need for litigation, making it more likely that a question will be avoided or resolved directly by the parties. Professor Dreyfuss expressed the patent system's need for uniformity in decision making as follows:

> Patent law is . . . unique in that its primary if not exclusive objective is to motivate future behavior. This goal is frustrated if the producers and customers of patentable information . . . cannot predict with some degree of confidence what the law will be across the nation.[33]

One of the principal reasons for assigning all patent appeals to a single appellate court, the Federal Circuit, was to achieve greater predictability through uniformity of decisions and doctrinal stability. Clearly, it has had some success in that respect. Professor Dreyfuss found that, on the whole the empirical data indicates that the Federal Circuit had made patent law more *precise,* in a way permitting the Patent Office, courts and practitioners to apply it with greater ease; and that the court had achieved greater *accuracy,* meaning correctness. The Federal Circuit, however, is less predictable than the predecessor CCPA was in deciding appeals from the Patent and Trademark Office ("Patent Office") because the Federal Circuit is larger and almost always sits in panels, whereas the CCPA always sat *in banc.*

As it becomes more experienced in patent litigation than most district courts, and because it is under direct supervision of the Federal Circuit, we can expect an increase in uniformity of decisions from the CIT over the average of those from district courts.

3. Access

A centralized court could be an inconvenient forum for localized controversies. The burden of traveling could create a systematic bias in favor of defendants if the challengers are local people who lack significant financial backing. It has been suggested that if judges are asked to ride circuit, the status of the job may be lowered and that may interfere with the efficient operation of the court. Access has not been a significant obstacle for patent disputants before the Federal Circuit. In large part,

33 Dreyfuss, *Federal Circuit, supra* note 25, at 67–68. *See* Henry J. Friendly, *Adverting the Flood by Lessening the Flow,* 59 Cornell L. Rev. 634, 639 (1974) (arguing that specialization would be more valuable to [consumers of patent law] than to criminals, who do not plan their activity with an eye fixed on the Bill of Rights, criminal law or rules of evidence).

however, that is because usually it is only necessary to visit an appellate court once, for oral argument.

In fact, participation in many patent cases in the district courts involves travel for at least one party and its counsel. Just as many district courts today use teleconferencing to limit travel by counsel for the parties, the CIT should be able to employ various types of technology to limit the need for travel without loss of any substantive rights. The CIT already is uniquely able to travel to various locations for trials.

B. *Competition Between Court Systems*

In the mid 1990s, Lord Woolf conducted a major study of the civil justice system in England and Wales, which provided insights relevant to the American system as well. His Interim Report touches on the subject of "uncompetitive costs." He notes that the cost of litigation in England "compares unfavorably with that in many other jurisdictions including Scotland." He quotes one international firm of civil engineers as having said that the risks and costs of litigation in the UK (except Scotland) exceeds those anywhere in the world where they operate, except possibly the state of California. A leading international bank was said to considering changing the venue for resolving legal disputes from London to New York. Lord Woolf noted that "The Patents judges, recognizing the attraction of significantly lower costs in Germany and Holland, have recently proposed rule amendments to limit the scale and cost of discovery in intellectual property cases."[34] In recommending more limited disclosure of documents in English patent litigation, he indicates that one reason is that to make no recommendation would be unsatisfactory "for the international competitiveness of the English legal system."[35]

In the United States, at least one court appears to be "competing" for patent litigation business. It is the United States District Court for the District of Delaware. The State of Delaware is a small state which has intentionally created a legal environment favorable to being the legal home for businesses and providing an efficient system for resolution of business disputes. The federal district court there also has sought to be an attractive district for patent litigation by providing expeditious dispositions and more judicial pretrial involvement than many other districts are able to provide.

34 Rt. Hon. Lord Woolf, ACCESS TO JUSTICE: INTERIM REPORT TO THE LORD CHANCELLOR ON THE CIVIL JUSTICE SYSTEM IN ENGLAND AND WALES 11–12. [hereinafter, "Woolf, INTERIM REPORT"].

35 Rt. Hon. Lord Woolf, ACCESS TO JUSTICE: FINAL REPORT TO THE LORD CHANCELLOR ON THE CIVIL JUSTICE SYSTEM IN ENGLAND AND WALES 126 (1996) [hereinafter, "Woolf, FINAL REPORT"].

While it is not clear that the intent of other U.S. district courts with a fast track to trial have adopted that policy to be "competitive," the "Rocket Docket" procedure of the Eastern District of Virginia has attracted patent litigation. Similarly the ITC has attracted cases, at least in part, because of its fast disposition policy.

In the Europe, the Convention of the European Communities on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters of 1973 (Brussels Convention) has created the possibility of increased competition for patent litigation between different European nations, which has recently been realized. In particular, the application of the *kort geding* summary procedure by Netherlands courts, has provided cross-border preliminary injunctive relief in intellectual property litigation.

C. *Case Management*

The principle that judges should play an active role in case management was advanced in the 1983 amendments of the Federal Rules of Civil Procedure in the United States. In particular, the amendment of Rule 16, providing for pretrial conferences, shifted "the emphasis away from a conference focused solely on the trial and toward process of judicial management that embraces the entire pretrial phase, especially motions and discovery."[36] Under the directorship of Judge William W. Schwarzer, the Federal Judicial Center encouraged greater judicial case management. The Center's support of that principle had considerable influence because its responsibilities include research and study of the operation of federal courts, presentation of recommendations for improvement in the administration and management of those courts, and training of judicial branch personnel, including judges.

Similarly, the first recommendation resulting from Lord Woolf's study was: "There should be a fundamental transfer in the responsibility for management of civil litigation from litigants and their legal advisors to courts."[37]

In 1990, Congress enacted the Civil Justice Reform Act ("CJRA"), which required district courts to experiment with different procedures through development of a "civil justice expense and delay reduction plan."[38] "The purposes of each plan are to facilitate deliberate adjudication of civil cases on the merits, monitor discovery, improve litigation

36 Advisory Committee on Civil Rules, *Advisory Committee Note*, 97 F.R.D. 165, 207 (Rule 16(a)).
37 Woolf, FINAL REPORT, *supra* note 35, at 299.
38 28 U.S.C. §§ 471–82.

management, and ensure just, speedy, and inexpensive resolution of civil disputes."[39] While the CJRA lead to procedures which were found more effective in many districts, it also created many procedural differences between districts and new reasons for forum shopping.[40] In contrast, Lord Woolf recommended that the civil justice system in England have provide a single, simpler procedural code to apply to civil litigation throughout the High Court and county courts (similar to the objective of the 1938 rules in the United States), while preserving special rules for patent cases where necessary.[41]

In 1997, a government-sponsored report by the RAND Institute for Civil Justice stated that the case management procedures mandated by the CJRA had failed to have much effect on either time delays or costs in U.S. federal court litigation.[42]

In the present author's experience, the quality of case management varies widely depending upon the availability of the judge, and the judge's interest and skill in case management. As a result, case management does not necessarily lead to cost management. Indeed, micro-management by the court can delay cases and increase their cost. The CIT proposal offers the opportunity for developing uniform and efficient case management techniques.

D. *Expediting Adjudication*

Shortening the elapsed time between filing of an action and trial has been widely recognized as one of the most effective ways to make civil litigation less expensive. When asked to estimate the cost of litigation, the present author has often referred to a "burn rate" of a specified amount per month of activity.

Among the working objectives for the new system for the civil justice system in England, envisioned by Lord Woolf's Reports, are predetermined timetables and length of trial, each to be changed only for good cause. Lord Woolf's Interim Report points out:

> Delay is an additional source of distress to parties who have already suffered damage. It postpones the compensation or other remedy to which they may be entitled. . . . It makes it more difficult to establish the facts because memories fade and witnesses cannot be traced. It postpones settlement but may lead parties to settle for in-

39 28 U.S.C. § 471.

40 *See, e.g.*, Edwin J. Wesely, *The Civil Justice Reform Act; The Rules Enabling Act; The Amended Federal Rules of Civil Procedure; CJRA Plans; Rule 83—What Trumps What?* 154 F.R.D. 563 (1994); Carl Tobias, *Finding the New Federal Civil Procedures*, 151 F.R.D. 177 (1994).

41 Woolf, FINAL REPORT, *supra* note 35, at 4, 5, 264–67, 269, 272-81, 322.

42 Woolf, INTERIM REPORT, *supra* note 34, at 20; Woolf, FINAL REPORT, *supra* note 35, at 6, 65-67.

adequate compensation because they are worn down by delay or cannot afford to continue.

Delay is of more benefit to legal advisors than to parties. . . .[43]

Similarly, in the United States a number of courts are expediting the time to trial and limiting the length of trials. For example, several judges in the District of Delaware are trying to bring patent cases to trial within one year and to limit the trial to two weeks, including all liability and damage issues. Such procedures tend to limit costs, by limiting the time available; however, they have been criticized especially by those accused of infringement as not permitting sufficient time for investigation and discovery. While the expedited schedule is a rather crude tool, it may be the most effective way to limit costs. The 1997 RAND study recommended a package of procedures including early setting of a trial date and a shorter discovery period, but cautioned that "swift disposition will not necessarily slice costs."[44]

A key to the expediting of patent litigation in Delaware has been the fact that there are few criminal cases on the docket. The CIT has no criminal docket at all.

E. *Settlement and Alternative Dispute Resolution*

In England, Lord Woolf has recommended that courts encourage the use of alternative dispute resolution ("ADR") techniques at case management conferences and pre-trial reviews, and take into account whether the parties have unreasonably refused to try ADR or behaved unreasonably in the course of ADR.[45]

There have been many court-sponsored ADR programs in the United States, with the encouragement of the Civil Justice Reform Act ("CJRA"). A number of U.S. district courts have mediation or "early neutral evaluation" programs in which a trained volunteer or paid attorney attempts to assist the parties in focusing and resolving their dispute.

A number of ADR organizations exist and several types of ADR procedures have been used in patent disputes; too many to describe in this paper. Two principal non-profit ADR organizations are the American Arbitration Association ("AAA") which has traditionally emphasized arbitration of disputes under its established rules, and the CPR Center for Dispute Resolution ("CPR") which has placed its principal emphasis on

43 Woolf, INTERIM REPORT, *supra* note 34, at 12.

44 Darryl Van Duch, *Case Management Reform Ineffective,* Nat'l L.J. A6 (Feb. 3, 1997) (reporting an evaluation study conducted pursuant to the CJRA).

45 Woolf, FINAL REPORT, *supra* note 35, at 5, 11, 64–65, 326.

mediation and the CPR pledge, an agreement by many major businesses and law firms to consider ADR before litigation.

The National Patent Board is a fairly recent development. It is modeled on the successful National Advertising Review Council which resolves many disputes concerning advertising. The Patent Board is a voluntary organization with (1) defined rules, (2) mandatory participation, (3) ability to resolve disputes at an early stage, (4) peer-reviewed panelists (arbitrators), (5) restricted discovery, (6) one-day hearings and (7) written opinions. Its opinions are non-binding, but admissible in court proceedings.

It is the author's observation that parties rarely engage in serious ADR activities to resolve patent disputes without a prior agreement or the urging of a court. The 1997 RAND study apparently reached a similar conclusion and, further, "detected no major effects of mediation or early neutral evaluation on time, costs, views of fairness, or attorney satisfaction."[46]

It should also be noted that there is substantial, systemic value in a reasonable number of disputes within any field of law being decided by a court, rather than resolved by ADR. As was noted in discussions at the time New York's commercial parts were established:

> One theory about the [New York] all-business court arrangement is that it might attract some disputes that would normally be resolved through mediation or arbitration. By going public, these cases can become reference points for the judicial system and the public as opposed to being settled in secret.[47]

Justice Rehnquist similarly noted the value of precedents in his remarks concerning the Delaware Court of Chancery, quoted above.[48]

F. *Other U.S. Patent Litigation Proposals*

There have been a number of other proposals for improving the system of patent litigation. Many were collected in the Report of the 1992 Advisory Committee.[49] It suggested study and consideration of special procedures or systems for patent litigation including: (1) restriction of the number of trial courts with patent jurisdiction, for example, one court in each of the 13 regional circuits, (2) assignment of patent cases to a designated patent "expert" judge or judges in each district, (3) implementation of a "small claims" procedure in the existing district courts, and (4)

46 Van Duch, *supra* note 44.
47 *All-Biz Court Zaps a Bunch*, BUS. L. TODAY, Mar./Apr. 1993 at 49.
48 Note 20 *supra*.
49 Note 10 *supra*.

removal of patent validity issues to a Patent Office panel. The first two of these suggestions does not appear very "doable" because they fly in the face of the generalist nature of the district courts and would raise substantial political issues in the choice of district courts. It is not at all clear that there is a patent "small claims" problem which would justify imposing a special procedure on every district; such a procedure might be more readily adopted—if justified—in a single court having a patent specialization, as proposed here for the CIT. Perhaps it would be useful to have a better way than we have now to address validity issues within the Patent Office; however, to place exclusive jurisdiction over validity issues there would go against the favorable experience with validity defenses in United States patent infringement litigation, and would be contrary to the international trend toward permitting such defenses as represented by the *Fujitsu* decision by the Japanese Supreme Court and the Community Patent Court proposal in Europe.

VII. Conclusion

Experience in the establishment of the Federal Circuit indicates three factors which might make the establishment of a trial level court with a patent specialization more likely: (1) support from the business community, (2) demonstration of a clear need for such a court, and (3) a proposal avoiding the need for new judgeships and courthouse, and. A fourth factor which may be relevant to the success of a specialized patent court is competition between jurisdictions for the adjudication of patent disputes.

Business support for specialized courts is growing. There appears to be a real need for an alternative patent litigation forum without a criminal docket and capable of conducting jury trials. Assignment of patent jurisdiction to the CIT, parallel with that of district courts, appears to be the most practical way to satisfy the four factors listed above and provide a trial court specializing in patent litigation.

LETTER FROM THE HONORABLE T.S. ELLIS, III, UNITED STATES DISTRICT JUDGE, EASTERN DISTRICT OF VIRGINIA TO THE HONORABLE LAMAR SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS, AND CHAIRMAN, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

October 25, 2005

The Honorable Lamar S. Smith
United States House of Representatives
Subcommittee on Courts, the Internet and Intellectual Property
2184 Rayburn House Office Building
Washington, D.C. 20515-4321

The Honorable Howard L. Berman
United States House of Representatives
Subcommittee on Courts, the Internet and Intellectual Property
2221 Rayburn House Office Building
Washington, D.C. 20515-0528

The Honorable Darrell Issa
United States House of Representatives
Subcommittee on Courts, the Internet and Intellectual Property
211 Cannon House Office Building
Washington, D.C. 20515-0549

Dear Chairman Smith, Ranking Minority Member Berman and Congressman Issa,

Again, I thank you for allowing me the opportunity to testify before the Subcommittee on the important topic of patent infringement litigation reform. Herewith are some modest and brief additional comments I offer on the subject.

1. The Magnitude of the *Markman* Reversal Rate (MRR)

Although able and excellent scholars like Professor Moore have sought to extract an accurate measure of the MRR from the available data, there remains much dispute about the reliability of any results. There is reasonable doubt (i) whether the available data permits such a measure, (ii) whether the data correctly counts the Federal Circuit's sometimes tacit approval of many appealed *Markman* rulings, (iii) whether the rate is increasing, stable or decreasing, and (iv) whether the MRR, whatever it might be, is appropriately compared to the reversal rate for all cases (probably approximately 20-23%), the reversal rate for all cases involving *de novo* review of questions of law (probably approximately 26%) or only the reversal rate for some types of more analogous cases and whether such accurate comparative reversal rates are even available. There is, therefore, a serious question and debate over the true dimensions of the MRR.

Yet, in the end, even those who believe (as I do) that the problem is not so dire as to justify radical structural changes in the judiciary cannot doubt that there is a problem that

warrants the focused attention and consideration of the entire intellectual property community.

Well then, assuming *arguendo* that the MRR is higher than is tolerable or even necessary given the normal vagaries of litigation, what should be done to address this issue? I have several modest suggestions targeted at what I believe to be the principal causes of whatever MRR problem may exist.

2. Judges Must Engage the Patent Technology and Issue Claim Construction Opinions

One cause of the high MRR is said to be the failure of federal district judges to engage and understand the patent technology in the course of ruling on claim construction disputes. While I do not personally know of such instances, the abundance of anecdotal information about such instances cannot be ignored. And, there is no doubt that where a judge energetically engages the patent technology and writes a coherent and rigorous opinion explaining the claim construction rulings, there is a greater likelihood that those rulings will be upheld by the Federal Circuit, both because they are more likely to be correct (or persuasive) and because the Federal Circuit, while reviewing the rulings *de novo*, is more likely to grant some degree of deference to a district court's well considered and expressed rulings. So, then, what should be done to ensure that judges do this?

The Federal Judicial Center (FJC) has already done much in this regard and can surely do more in the future. Not too long after *Markman*, the FJC recognized that *Markman* was a watershed event in patent infringement litigation history and that this decision radically altered the patent infringement litigation landscape. Appropriately, the FJC perceived a need to develop a program to provide federal district judges with helpful information and guidance regarding management and trial of patent infringement actions post-*Markman*. The first program was held at UC Berkeley with the aid of the distinguished intellectual property faculty there. I attended the first program by invitation and spoke to the group, advocating the absolutely vital need for judges in patent infringement cases to engage and attempt to understand the patent technology in the course of the claim construction effort. In this connection, we discussed as a group the need to hold *Markman* hearings and make *Markman* determinations as early as practicable in the litigation process, well before trial or summary judgment, if at all possible. Also, strongly advocated by me and by other judges was the need for judges to issue lucid and rigorous written opinions on the *Markman* determinations. It is well-accepted among judges that the discipline of writing a rigorous opinion helps ensure the integrity and soundness of a decision. Although the press of judicial work precludes issuing or publishing opinions in every case, *Markman* determinations are a category of decisions where it is especially important to do so in virtually all cases.

Since their inception, these FJC programs have continued, I believe, on a bi-annual basis. It occurs to me, and by copy of this letter to Judge Barbara Rothstein, FJC Director, I am suggesting that these programs be held more often, in more places, and for smaller groups of judges, especially newly-appointed judges and judges who are only occasionally assigned to hear patent cases. Appropriate venues for such programs might include the districts where larger numbers of patent infringement suits are filed so that experienced judges could serve as a resource.

I would be remiss if I did not acknowledge that the FJC has also published helpful material on the conduct of patent infringement trials, especially Schwartz, H., *Patent Law and Practice* (3d ed. 2001). Yet, even this material might do more to emphasize not just the importance of judges engaging the patent technology, but also the often-overlooked fact that many generalist judges have done so successfully. Examples might be provided of a number of experienced patent trial judges who, armed with their English, Political Science or History degrees, have managed successfully to engage the technology of a wide range of patents, including transistor circuitry, computer algorithms and the chemistry of pharmaceuticals and other products.

In this regard, it might also be helpful for the FJC to establish a panel of judges who have had substantial patent infringement trial experience to be available by telephone or otherwise to discuss not the facts or questions of a particular cases, but rather more general advice and suggestions that might be helpful, including perhaps the following:

(1) When in the course of the discovery process to hold the *Markman* hearing and make the *Markman* determinations.

(2) How to structure discovery to help expedite the identification of the disputed patent claim terms.

(3) How best to determine whether a *Markman* hearing is necessary and, if so, how such a hearing should be structured in light of the Federal Circuit's teachings, *e.g.*, *Vitronics Corp. v. Conceptronic*, 90 F.3d 1576 (Fed. Cir. 1996). This includes such matters as whether it may be useful to hear expert testimony, not on the meanings of disputed claim terms, but rather as an aid to the judge's understanding the technology.

(4) The advantages (few in my experience) and disadvantages (many in my experience) of using Rule 706, Fed. R. Evid. to appoint independent experts, etc.

3. <u>The Need to Reform the Drafting of Claim Language in the PTO</u>

Without doubt, an important ingredient in the MRR "stew" many believe we are in is the broad and vague claim language found in most disputed patents. This broad and vague claim language is understandably and deliberately advanced by applicants seeking the broadest scope of protection for their invention. They are too often aided in this effort when patent examiners uncritically accept such language.

Perhaps some reforms in claim writing can serve to reduce the number of claim term disputes and hence the MRR. Practitioners and the PTO could surely consider profitably whether PTO regulations can be supplemented or refined to require applicants and claim examiners to adhere to a higher standard of particularity and specificity in claim writing. Nor is there any doubt that this effort would be appropriate given that the patent statute requires the inventor to write and present claims that succeed in "particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112(2).

In particular, examiners and applicants should avoid broad or vague language such as "approximately," "nearly," "reasonable consistency," etc. Where temperatures or other quantitative measures are specified and a range is intended, the applicant should be required to specify the precise range. This would eliminate debates over whether "approximately 400 degrees" includes or excludes 420 degrees, 376 degrees, etc. A review of the cases confirms that ambiguities of this sort are not infrequent sources of claim construction disputes.

Also, a frequent problem in claim construction is the definition of technical as well as non-technical words. With respect to technical words, all applicants should be required to include in every patent a lexicography defining with particularity all technical terms. *See, e.g., John D. Watts v. XL Sys.*, 232 F.3d 877 (Fed. Cir. 2000). Similarly, where non-technical terms are intended in a sense other than their ordinary and customary usage, then these terms should also appear in the lexicography or, as a matter of law, they must be given their ordinary dictionary meaning. Thus, no patent should issue without including an applicant's lexicography of all significant technical terms used in the patent and all non-technical terms that are intended to be understood in some way other than the customary usage or understanding. And where the patent examiner can anticipate that a non-technical term is ambiguous, the examiner should require the applicant to include the term in the applicant's lexicography. The absence of a disputed ambiguous term from the patent's lexicography should, as a matter of law, require the use of the term's **narrowest** common or ordinary meaning.

In sum, the PTO, with the aid of practitioners, might usefully undertake an effort to craft new regulations aimed at reforming the drafting of claim language to include greater specificity, as envisioned by 35 U.S.C. § 112(2).

4. Scope of Federal Circuit Review

This final suggestion to address the MRR problem is less modest than the others and doubtless far more controversial: It is no less than a narrowing of the Federal Circuit's scope of review from a non-deferential *de novo* review to a more deferential review not unlike the scope of review courts accord an administrative agency's construction of its own statute. *See, e.g., Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984).

Markman established that claim construction is a question of law that is subject to non-deferential *de novo* review in the Federal Circuit. Many practitioners believe this is an important ingredient in the MRR problem and that a somewhat more deferential review would result in a tolerably lower MRR. While this reform could be accomplished by the Federal Circuit itself, that is not likely to occur and hence this is a step that Congress must undertake if it is to be done at all.

Although I mentioned that there is controversy over the Federal Circuit's scope of review of district court *Markman* rulings, it is worth noting that this controversy finds expression even in the Federal Circuit's opinions. In this regard, I invite your attention to *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), an *en banc* decision from the Federal Circuit with concurring and dissenting opinions, a copy of which is enclosed for your convenience. In particular, I call your attention to Judge Mayer's dissenting opinion.

These are just the bare outlines of some modest suggestions that I offer to address the MRR problem. To repeat briefly what I said at the Subcommittee hearing, the MRR problem, even assuming the 35% figure, does not warrant momentous structural changes such as the establishment of specialty courts or special limiting venue provisions. Even assuming, *arguendo*, that judges with specialized backgrounds are needed, the question then arises whether they are needed for every area of technology — mechanical engineering, electronics, chemistry, etc. — and at what experience level — PhD, Masters, undergraduate degree, etc. In this respect, it is worth recalling, as I mentioned at the hearing, that fully half of the current Federal Circuit judges do not have technical backgrounds. I should also point out that in my experience, the parties' experts in complex cases — almost always holders of PhDs — have no difficulty disagreeing about the meaning of claim terms and the consequences of these meanings.

In short, the debate over whether we should have specialty courts is as old as the Republic and the considered judgment has always been — wisely, I believe — that we should not and that generalist judges are a more appropriate solution.

And, with regard to limiting venue provisions, I believe this is unnecessary. The current broad venue provisions appropriately allow lawyers to choose venues experienced in patent infringement litigation and the data shows that more often than not they do precisely this. Nor do I believe that the MRR should be addressed by legislating an interlocutory appeal of *Markman* rulings from the district court to the Federal Circuit. Interlocutory appeals would not likely alter the MRR, but would almost certainly lengthen the litigation of a patent infringement case and make it more expensive than it already is.

For these reasons, I believe the modest suggestions that I offer are more appropriately tailored to the nature and dimensions of the MRR problem. If you would like any additional information or discussion regarding these suggestions I would be happy to provide it. In addition, I would be pleased to refer the Subcommittee and its staff to certain experienced and knowledgeable judges, academics and practitioners, who have well-considered views on these subjects.

Once again, many thanks for allowing me to participate in your Subcommittee's very important work.

Sincerely,

T. S. Ellis, III

Enclosure

cc: The Honorable Barbara Rothstein, FJC Director

TSE/epn

ARTICLE SUBMITTED BY THE HONORABLE T.S. ELLIS, III, UNITED STATES DISTRICT JUDGE, EASTERN DISTRICT OF VIRGINIA ENTITLED "PRESENTATION: DISTORTION OF PATENT ECONOMICS BY LITIGATION COSTS"

***PRESENTATION*:**

DISTORTION OF PATENT ECONOMICS BY LITIGATION COSTS*

Judge T.S. Ellis, III**

My thesis today is neither revolutionary nor abstruse. On the contrary, it is no more than a modest, straightforward, common-sensical observation that has likely already occurred to many veteran viewers of the patent scene. It is, simply put, that the escalating, indeed skyrocketing litigation costs of the 1970's and 1980's have distorted patent markets and patent economics. Put another way, it is my observation that the escalating costs associated with litigating patent infringement and validity issues discourage challenges to patents, thereby essentially equating the entry barriers for presumptively valid, but weaker patents with those entry barriers associated with strong or judicially tested patents.

Let me elaborate. Patents present barriers to potential unlicensed competitors. Ideally the height of these barriers is a function of the patent's strength. Strong patents or patents that have already successfully passed judicial muster properly present a formidable barrier to potential competitors wishing to compete with the patentee by practicing the invention. The height of this entry barrier may be said to be equal to a royalty rate responsive to a number of market factors, including, for example, the cost of using a product or technology that competes with the patented product or technology, but is outside the patent's scope. But significantly, one factor that is not a part of the entry barrier equation for strong or judicially confirmed patents is uncertainty over the patent's validity.

By contrast, this factor can and often does play a vital role in determining the royalty rate, or metaphorically speaking, the height of the entry barrier for patents that are only presumptively valid, patents that have not yet run the litigation gauntlet. And the role this factor plays is obvious: it raises the entry barriers associated with such presumptively valid, but untested patents. Put another way, high litigation costs serve to discourage

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potential competitors from entering the market and challenging the patent. And if litigation costs are high enough in a particular instance, then the entry barriers associated with such untested and only presumptively valid patents may be raised to the level of those barriers associated with stronger, judicially tested patents. In short, burgeoning litigation costs have distorted patent markets by significantly discouraging potential patent challenges, hence distorting competition to a degree beyond that justified by the intrinsic strength or merit of the patent.

Now why, it is fair to ask, is this bad? The answer, it seems to me, is the sensible notion, inherent in the patent system (partly explicitly and partly implicitly), holding that for various reasons, some patents are improvidently issued and these patents, the notion holds, will be ferreted out and declared invalid through litigation. It follows that artificial disincentives to such litigation, such as escalating costs, may result in the unwarranted survival of some improvidently issued patents. In other words, the patent system contemplates that litigation challenges will catch those unworthy inventions that somehow slip through the Patent and Trademark Office filter. Barriers to such challenges that are unrelated to the intrinsic strength or merit of a patent contribute to the survival of unworthy patents, a result plainly inimical to the system.

And I should note parenthetically that the likelihood that escalating costs will have this untoward result may be increased if, as some observers fear, the Patent and Trademark Office's filter is becoming more porous, resulting in patent status for greater numbers of unworthy inventions. The greater porousness of the Patent and Trademark Office filter is said to stem from a variety of factors. Among these factors are (i) what I have observed as the trivialization of the unobviousness requirement and (ii) what commentators have noted as the increasing significance of commercial success in the validity calculus.

On this latter point, I find particularly incisive Professor Merges' California Law Review article in which he documents the dramatic increase in the importance of financial and licensing success in the validity calculus. He correctly points out that heavy reliance on these secondary factors tends to reward not actual invention, but rather such arguably irrelevant matters as superior distribution and marketing systems and service networks. Indeed, only a moments reflection suggests that licensing success may more accurately reflect today's high litigation cost environment rather than intrinsic patent strength. Too common to dispute is the scenario in which a potential competitor concludes that a license is cheaper and more certain than a lawsuit.

In sum, then, the pernicious effect of the escalating expense of patent litigation is that it artificially discourages court challenges to patent validity and thereby contributes to the risk that invalid patents will pollute the market.

But this is not the only pernicious effect of the high cost of patent litigation. The patent system, it seems to me, contemplates not only that litigation will eliminate improvidently issued patents, but also that would-be competitors will not be artificially discouraged from marketing a product or using a process that is as close to the border of the patent's scope as technology and law permit. High patent litigation costs are just such an artificial disincentive; in this respect, such costs have the essential effect of improperly expanding a patent's boundaries.

In summary, to restate my thesis, it is simply that high litigation costs distort patent markets by discouraging challenges to weak, potentially invalid patents and by discouraging potential competition at the borders of a patent's scope. To be sure, this thesis does not rest on firm empirical ground, but rather on intuition and anecdotal observation. Empirical investigation is needed to determine whether theory or thesis conforms to fact. This is a daunting and challenging task, no doubt heavy sledding for some lawyer–social scientist.

Yet, some of the pieces of the empirical puzzle may already be in place. No one, for example, doubts that patent litigation expenses today are very high, certainly much higher than 25 years ago. Nor is there much doubt that the expense of litigation can affect potential competitors' decisions whether to litigate, take a license or stay out of the market. The question is whether costs have risen to the point that they distort the market by significantly affecting the decision whether to compete or challenge an otherwise weak patent. I hope some enterprising investigator accepts the challenge to undertake the task of ascertaining whether my thesis fits the facts.

Finally, assuming that my thesis is valid, it is worth addressing, in general terms, what should be done about it. First, if litigation, because it is now so expensive, can no longer be counted on to ferret out invalid patents, perhaps steps should be taken to reduce the potential for the issuance of such patents. This might be done, for example, by legislative measures designed to reinvigorate the unobvious standard or lessen the importance of commercial success as an indicium of patentability. But these momentous steps are well beyond the scope of my remarks. Equally ambitious, yet closer to the aim of my remarks, is what can be done to stem the rising tide of patent litigation costs.

Of course, I have no certain panacea for the problem of skyrocketing patent litigation costs—except perhaps to suggest as did Dick the Butcher in *Henry VI, Part 1*, "Let's kill all the lawyers." But putting extremism to one side, let me make some observations, designed more to provoke discussion than to provide certain answers.

Let's focus first on discovery, for as any experienced practitioner will quickly confirm, the discovery stage is typically the costliest stage; it is the black hole of legal costs. Lawyers approaching the discovery stage of a large, complex patent case, like matter near a black hole, are sucked in and vanish, never to be heard from again. And continuing the metaphor, discovery, like a black hole, consumes vast amounts of energy, but gives off no light. I say this as a veteran of many patent antitrust discovery campaigns and now as a consumer of the results. My conclusion: discovery provides relatively little bang for the buck. Why? Probably the combined result of incentives built into the adversary system, coupled with the practice of billing by the hour and the compulsive thoroughness of most litigators. An extreme example from my own experience as a litigator: A six week deposition of a witness in a patent antitrust case. On reflection, the results of the effort confirm that the length and depth of that deposition owed more to the situs—the French Riviera—than to any rational cost-benefit analysis. More recently, I have reviewed numerous deposition transcripts in my five years on the bench and I find that the truly useful portions rarely amount to more than ten percent of the whole transcript. Much time is wasted by aimless fishing expeditions, a situation often exacerbated by well-coached evasive witnesses.

A complete remedy is not available. I would not change the adversary system and neither I nor anyone else is going to change the compulsively thorough and combative nature of most litigators. But there are some partial remedies. Principle among these are judicially imposed limits not just on the number of depositions, but importantly, also on their length. No deposition need last or should last six weeks. More than two to three days is almost always unnecessary. In my Division, Magistrate Judges handle all discovery matters. With their cooperation, I have recently increased my effort to monitor the problem of unnecessarily lengthy depositions.

Perhaps even more effective as control on litigation expense is to shorten the time from issue to trial. Surely a case that takes five or more years to litigate, as happened not infrequently when I was at the bar, costs much more than a similar case that start to finish is over in six months. This is one of the premises of our system in the E.D.Va. Because the trial date is certain and unchangeable, many cases settle.

In any event, if my thesis is correct, if escalating litigation costs are distorting patent markets, then a concerted effort should be made to reduce or control costs. This complex problem deserves the attention and study of this Section.

Also worth study is whether the distorting effect of high costs might be ameliorated somewhat by a clear fee-shifting provision. At present, fees are awarded to the prevailing party only in "exceptional cases," a far from clear category. Perhaps adopting a clear fee-shifting provision in patent cases would counter the ill effect of high costs. At all events, this and other cost cutting measures, and the thesis itself all merit closer study. Perhaps members of this Section will consider this a worthy task.

My thanks for your attention. I hope my discussion of entry barriers has not created any barrier to my returning to future events of this group.

ARTICLE SUBMITTED BY THE HONORABLE T.S. ELLIS, III, UNITED STATES DISTRICT JUDGE, EASTERN DISTRICT OF VIRGINIA ENTITLED "PRESENTATION: QUICKER AND LESS EXPENSIVE ENFORCEMENT OF PATENTS: UNITED STATES COURTS"

***PRESENTATION*:**

QUICKER AND LESS EXPENSIVE ENFORCEMENT OF PATENTS: UNITED STATES COURTS

Judge T.S. Ellis, III*

It is a great pleasure and distinct honor to be here among you today. As professor Takenaka told you, I sit in a district that is either famous or infamous, depending on your perspective, for the so-called "rocket docket." There, everything goes from birth to death in six to eight months, regardless of the nature or dimension of the case—and that includes patent cases. The only rare exceptions that come immediately to my mind are the Dalkon Shield class action litigation[1] and the asbestos class action litigation.[2]

My goal here is to describe to you how this so-called "rocket docket" works with respect to intellectual property cases, particularly patent cases. To accomplish this, I will describe what typically happens in a patent case from start to finish, in the course of which, in passing, I will mention some of the more interesting patent issues that are alive in patent litigation in our district today.

Before beginning, let me offer five prefatory comments—five observations that I think are necessary to put my remarks in the proper perspective. First, the name "rocket docket" is not one chosen by the judges of the Eastern District of Virginia; it is not a name that we use at home. I use it here only because I am told that some of you are familiar with what we do in the Eastern District by that name. Second, I have no pride of authorship or of parenthood with respect to the "rocket docket" system. I did not conceive of it, I did not design it, I did not build it, and I am not the architect; I merely joined it some twelve to thirteen years ago when I was first appointed, and I now find it most congenial. I must say that as a practitioner

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1 See *In re A.H. Robins Co., Inc.*, "Dalkon Shield" IUD Products Liability Litigation, 610 F. Supp. 1099 (Jud. Pan. Mult. Lit. 1985).

2 See *In re Asbestos Products Liability Litigation*, 771 F. Supp. 415 (Jud. Pan. Mult. Lit. 1991).

this was not always my view, but my perspective has changed. Third, I am not here today to advertise the process; I'm not here to recommend it to other districts. Nor am I here to suggest that it is the best way to organize a trial docket, or the only way to do it. Nor am I here to criticize what other districts may do; there are many effective ways to skin the cat. Rather, I am simply here to describe the system to you because Professor Takenaka has invited me to do so. She is under the impression, possibly mistaken, that some of you may be interested in what we do in the Eastern District of Virginia.

The fourth comment I want to make, by way of a prefatory comment, is probably the most important I will make in this regard, and it concerns local legal cultures. Many of you know about and are familiar with the Federal Rules of Civil Procedure, and you know these rules apply to all federal courts nationwide. Many of you are also aware that federal courts across the country process cases at varying rates. I am sure that many of you are familiar with the fact that cases last years in some districts, and only months in others. Therefore, you may reasonably wonder how this can be so if the same rules are operable in all districts. There are many answers to that question, but perhaps the most important is that there are very different legal cultures across this country. If any of you have tried a case in the Southern District of New York or in the Eastern District of New York, or have tried a case perhaps in the District of New Mexico, then you know those are very different trial experiences. Legal cultures vary widely across this land and trying cases is a very different experience depending on where you are.

Let me also say that local legal cultures are very difficult to change, and very slow to change. I served for six years on the Judicial Conference of the Standing Committee on Rules of Practice and Procedure, and I was quite amazed to find, again and again, many persons who believed that if we only changed the rules, we would change the practice across this country. I spent six years trying to persuade the Committee members that rule changes were not always effective to change engrained legal practices and cultures. More often, rules are interpreted or adapted to fit the local culture.

My final prefatory comment is to tell you what I think are the three main ingredients of the so-called "rocket docket" that you will see as I go through the process. Indeed, these are the three most important ingredients of any system promising brisk or rapid disposition of cases. The first ingredient is the early setting of a fixed and immutable trial date, and I do mean fixed and immutable. Let me tell you a little anecdote from my practice days. Many years ago, one of my former partners had a very important municipal bond case set for trial. Regrettably, on the way to the first day of

trial, he suffered a serious heart attack. We all assumed, myself included, that the case would be continued. It was, but only for one day. The following day, I found myself in court trying the case. Now, admittedly, there were some other factors operative here, but the point is that trial dates in the Easter District of Virginia are fixed and immutable; they rarely, if ever, get moved unless there are truly exigent circumstances. In twelve years now, I have not granted a motion to continue a civil trial, nor do I know that any of my colleagues have for anything less than a truly exceptional reason. More significantly, I can remember only six times when I have been asked to move a trial.

This leads to a second feature of the "rocket docket" that is important to its success. There is a discipline that is accepted in our local legal culture, where everyone knows that the trial date is fixed and immutable, and they do not ask to move or continue trial dates. There is a discipline that is accepted in our local legal culture, where everyone accepts that it is fair and reasonable to go to trial as rapidly as we do, and that when a suit is filed, they must be ready to hit the ground running. There is also a discipline imposed on judges; they must promptly consider and decide various non-dispositive and dispositive motions that are presented in the course of a trial. No expeditious docket system can tolerate dilatory judging. It means that we cannot sit on cases; they must be promptly decided.

The third feature of the so-called "rocket docket" is a master docket. We are the only district in the country that uses a master docket. Let me explain briefly. Everywhere else in the country, judges have individual dockets; that is, they each have a group of cases assigned to them individually, and they deal with those cases from beginning to end. We do not do that in the Eastern District of Virginia. Rather, every case goes on a master docket, and this means that if I am fortunate enough to be invited to a session out in Seattle, I can attend, knowing that all trials and hearings will still be heard and resolved while I'm gone, as they will be handled by any of my colleagues who are there. Moreover, if a trial I'm handling lasts longer than anticipated, so that it conflicts with another trial I am scheduled to try, then one of my colleagues will step into the breach and try the second case so there is no need for a continuance. In the Eastern District of Virginia, the absence of a judge is never a reason to postpone a trial or hearing.

Another point I might add about our master docket system is the fragility of it. Every time a new judge is appointed, this judge may elect to have an individual docket. The next federal judge appointed in our district may come and say, "I don't want to participate in a master docket; I want my own docket." Should that occur, it might spell the end of the "rocket

docket"—a system which has been in effect since the 1950s, largely as the result of the efforts of Judge Albert Bryan, who is a Senior District Judge and still hearing cases.

Now, let us talk about some pre-filing activities and the track of a typical patent case filed in the Eastern District of Virginia. Let us assume, for example, a foreign patentee, perhaps in Germany, Japan or Taiwan, or somewhere in Korea, has a corresponding American patent that it believes is being infringed in the United States. They will have an American counsel, who will suggest bringing the suit in the Eastern District of Virginia, believing they can obtain a rapid disposition in six to eight months. That would likely be to the patentee's advantage. Now, you must of course have local co-counsel in addition to counsel in the United States, and the local counsel must be someone admitted to practice, and preferably experienced in practice, in the Eastern District of Virginia.[3]

In the last year, we have experienced an explosion of intellectual property cases in the Eastern District of Virginia. It's hard to know precisely why this has occurred. Perhaps it is the reputation of the "rocket docket," or it may be the proximity of the Patent and Trademark Office (PTO).[4] In any event, the explosion of patent cases is real—and I am astonished at what appears to me to be a lack of forethought that has gone into many of these filings. For example, very few litigants seem to give consideration to the typical venue and jurisdiction questions that crop up in patent cases, and which lead to significant litigation and expenditure of resources. One example of this is *DeSantis v. Hafner Creations, Inc.*[5] In that case, a patentee filed suit in the Eastern District of Virginia because, as his lawyer admitted, he wanted to take advantage of the "rocket docket." To create personal jurisdiction, a paralegal from the patentee's law firm ordered the infringing device, made in Florida, and had it shipped to Virginia. The ultimate dismissal for lack of personal jurisdiction could not have come as a surprise to the plaintiff.

Another area of non-merits litigation that is often wasteful concerns motions to transfer under section 1404(a). Section 1404(a) grants district judges the discretion to transfer cases to other districts in the interests of justice, and for the convenience of the witnesses and parties. A vast amount

3 See Rule 83.1, Local Rules of Practice, E.D. Va.

4 The PTO now plans to build a palatial new complex of buildings adjacent to our courthouse.

5 949 F. Supp. 419 (E.D. Va. 1996).

of jurisprudence has grown up under that provision and much of it is usefully chronicled, for those of you that are interested, in ALR Fed.[6]

There is one transfer consideration that has not yet made it into ALR Fed. It arises where a foreign patentee has no offices in the United States, but has a very important patent that is infringed by a number of different infringers across the country. These situations arise not infrequently and present the patentee with difficult forum selection issues. In one instance, I presided over a case in which a single patent was being infringed by eight putative infringers in eight different states. This patentee, facing the daunting prospect of filing suit in eight different jurisdictions across the country, elected instead to bring all of the suits in the Eastern District of Virginia and to have the cases consolidated there. When I was presented with the consolidation motion, it was clear to me the cases did not deserve to be consolidated because several involved different defenses. In addition, there was very little commonality in the cases, except for the important commonality of the patent and the validity of the patent, and several, but not all, *Markman* issues.[7] Inevitably, the defendants made motions to transfer, and each sought a transfer to its own district. I denied the motions because I found the transfers would not serve the "interests of justice" under 28 U.S.C. § 1404(a). It did not make sense to me to have eight district judges around the country making the same *Markman* determinations. Rather, I denied the transfer motions and loosely consolidated the cases for discovery only. Then, after a concerted settlement and mediation effort by our magistrate judges, six of the eight cases were settled and I then *sua sponte* called for a renewal of the motion to transfer. In the course of hearing that motion, the seventh case settled and I thereafter transferred the eighth and final case to a more convenient forum. This is a new consideration in the transfer calculus; it does not make sense to have district judges across the country deciding the same *Markman* issues if they can all be decided by a single judge.

Now let me see if I can skip ahead. As a plaintiff in the Eastern District of Virginia, you must be ready to proceed expeditiously to complete your discovery. You will have only three to four months of discovery, so at or before the time of filing you must be fairly clear about what you are going to do by way of discovery. In this regard, one area I find plaintiffs are

6 See Annotation, Questions as to Convenience and Justice of Transfer Under Forum Non Conveniens Provision of Judicial Code (28 U.S.C. § 1404(a)), 1 A.L.R Fed. 15 (1969).

7 *Markman v. Westview Instruments Inc.*, 517 U.S. 370 (1996).

frequently unclear about and unprepared on is damages discovery. No plaintiff ought to file in the Eastern District of Virginia without already having retained a trial expert, both on the issues of liability (that is, infringement and any *Markman* issues that may be determined) and damages. In other words, a plaintiff filing in the Eastern District of Virginia must have the reasonable royalty or lost profits damage claim ready to go. Surprisingly, several plaintiffs filed their cases in the Eastern District of Virginia thinking that they would formulate their lost profits or reasonable royalty damage claim in the course of discovery. That is a luxury that you will not have in the Eastern District of Virginia; you must be prepared to move more briskly than that. You must have your experts ready on liability and damages issues. Now as a plaintiff you may not be able to anticipate all the *Markman* issues that a clever and ingenious defendant may raise, but an effort to do so must be made.

Let me move on to the defendant. As far as a defendant is concerned, in pre-filing activities, if, as often occurs, the suit is filed only after licensing negotiations, then the alleged infringer may want to consider filing a declaratory judgment action. I won't discuss the problems relating to that course of action, but let me refer you in that instance to a case entitled *CAE Screenplates*.[8] That case deals with the case-in-controversy requirement. As that case reflects, it is not always appropriate for a defendant to file a preemptive declaratory judgment. Defendants must also promptly prepare independent experts, including one who can testify as to the reasonableness of continuing to make, use or sell the allegedly infringing product or method in the face of an infringement claim. In this country, as many of you know, damages for infringement may be enhanced at the discretion of the trial judge to an amount up to three times the amount of actual infringement damages, if there is a finding by clear and convincing evidence that the infringement was willful, and if the totality of the circumstances warrants the enhancement.[9] Without going into any detail, I simply note that it is important to have an expert in this regard, separate from your trial attorney. Such an expert should be retained by a putative infringer as soon as notice of the alleged infringement is received from the patentee.

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8 *CAE Screenplates, Inc. v. Beloit Corp.*, 957 F. Supp. 784 (E.D. Va. 1997) (no subject matter jurisdiction over declaratory judgment action unless it is clear that negotiations are at an impasse and patentee will sue).

9 See 35 U.S.C. § 284. See also *Applied Medical Resources Corp. v. United States Surgical Corp.*, 967 F. Supp. 861 (E.D. Va. 1997).

One further pre-filing point merits mention, namely the jury. When I was first at the bar, patent jury trials were a rarity. Indeed, most lawyers thought they were unavailable because patent trials were deemed to be predominantly equitable in nature. This, of course, has now changed. It appears that jury trials occurred in less than 5% of patent cases in the 1960s, but began thereafter to grow steadily, so that today jury trials occur in almost 95% of patent cases.[10] Whether jury trials in patent cases make sense is debatable, but I will cite one instance to you where I think we can all agree a jury trial would have been inappropriate.[11]

When you file a lawsuit in the Eastern District of Virginia, your answer or responsive pleading is due in twenty days, pursuant to Rule 12, Fed. R. Civ. P. Very often counsel will agree to extend the time to respond. Significantly, however, in the Eastern District of Virginia, such extensions do not extend the time to trial. Within twenty days of the filing of the complaint, or soon thereafter, the pretrial order will be issued. This order sets the pretrial discovery period and final pretrial conference date, at which conference the trial date will be set. All trials are set between four to six weeks after the final pre-trial conference. In summary, the six to eight month clock in the Eastern District of Virginia begins ticking as soon as the initial pre-trial order is issued. This occurs when the responsive pleading is filed or when an extension of time is sought. The initial pre-trial order establishes the discovery cut-off date and the final pre-trial conference date, as well as an expert discovery schedule. The trial date, set at the final pre-trial conference, is invariably four to six weeks from the conference date.

In patent cases, unlike most other cases in the Eastern District of Virginia, a specific district judge is assigned to hear the case.[12] Therefore,

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10 See Schwartz, Patent Law & Practice 127-131 (2d ed. 1995).

11 The unusual case in which this occurred involved 21 patents in issue, all involving either transistor circuitry or computer chip fabrication processes. It was inconceivable to me that a jury would have either the patience or the desire to sit through days of complex testimony on these subjects. Fortunately, counsel agreed and withdrew their requests for a jury trial. Thereafter, the case proceeded, complete with four Rule 706(a) experts. *Seriatim* trials were held on each patent, with decisions rendered from the Bench following the trial of each patent. See *NEC Corp. v. Hyundai Electronics Industries Co.*, Ltd., 30 F. Supp. 2d 546 (E.D. Va. 1998); *NEC Corp. v. Hyundai Electronics Industries Co., Ltd.*, 30 F. Supp. 2d 561 (E.D. Va. 1998).

12 This also occurs in some other large or complex cases, such as large criminal drug conspiracies, spy prosecutions and class actions.

in a patent case, the same judge will preside throughout the case, including threshold dismissal motions, *Markman* motions, summary judgment motions and the trial. Similarly, a single magistrate judge will be assigned in a patent case to preside over all discovery matters. The assigned magistrate judge will hold a hearing early on to set a discovery schedule and to enter a standard patent case discovery order, designed to ferret out early on any particular *Markman* issues. A different magistrate judge will preside over any settlement or mediation efforts in a patent case. As a trial judge, I do not become involved in settlement or mediation efforts because I do not want the parties' settlement positions to infect my judgment on the merits.[13] Magistrate judges in the Eastern District of Virginia are experienced in facilitating settlement and mediation of patent cases and have succeeded in resolving many of the cases filed in the district.

Also worth emphasizing is that district judges in the Eastern District of Virginia do not typically handle discovery issues; these are delegated to the assigned magistrate judge. Of course, appeals may be taken from discovery rulings of magistrate judges,[14] but such appeals are relatively rare, both because the magistrate judges are knowledgeable and experienced in this area and because their rulings are properly given great deference. *De novo* review of a magistrate judge's legal rulings on matters of law such as privileges present the quite rare occasions that, in my experience, have led to a reversal of a magistrate judge's discovery ruling.

In the Eastern District of Virginia, we strive for early hearings on claim determinations under *Markman*. As many of you know, *Markman* was a watershed event in the history of patent litigation, where the Supreme Court definitively held that the meaning of patent terms is a question of law for the court, not the jury. Prior to *Markman*, claim interpretation issues were typically left to the jury on the basis of the parties' conflicting expert testimony. And typically the jury would be asked to render its decision by way of a general verdict in which the jury would simply indicate whether it found for the patentee or the defendant, without indicating what claim interpretation decisions the jury had made. To put it mildly, under the pre-*Markman* regime, general jury verdicts concealed a multitude of sins. Now, in the post-*Markman* era, the claim determination issues must be decided by the judge, who must articulate reasons. In other words, district judges must come to

13 I also do not become involved in settlement discussions because I'm not particularly good at it.

14 See Rule 72, Fed. R. Civ. P.

grips with the technology at issue and must make highly visible determinations about the meaning of claim language, and therefore the scope of the patent.

Markman hearings in the Eastern District of Virginia are held as early as practicable. The reasons for this are obvious. Experts must know the meaning of disputed terms as soon as practicable so that they can predicate their opinions on a correct interpretation of the patent. On relatively rare occasions, *Markman* decisions are not made early and experts may be required to render their opinions based on alternative assumptions about disputed claim terms. In even rarer instances (once in my experience), the jury is asked to make its determination on alternative assumptions about the meaning of disputed claim terms. This occurred where the *Markman* determination was especially difficult and I deemed it prudent to provide the Federal Circuit with the jury's conclusions on alternative assumptions as to the meaning of a disputed claim term. In this one instance, the case settled and no appeal was taken.

Now let us turn to the summary judgment stage of the case. Although summary judgment motions may be filed before the end of discovery, they are far more typically presented at or near the end of discovery. Sometimes, a summary judgment motion is filed immediately following a *Markman* ruling if that ruling is deemed to be dispositive of some validity or infringement issue. Rule 56 permits summary judgment on all or part of any claim.[15]

In the Eastern District of Virginia, a final pre-trial conference is set in the initial scheduling order. At this conference, a trial date is set four to six weeks from the date of the conference. Also, on the day of the final pre-trial conference, the parties exchange their witness and exhibit lists, and motions *in limine* may be filed and resolved as well.

Now let me turn to a number of techniques we use in the Eastern District of Virginia to enhance jury understanding of complex patent issues. First, and perhaps most importantly, I provide the jury with initial instructions on the law they are to apply, so as to focus their attention on the relevant testimony as it's presented. In this regard, I also allow counsel to

15 See, e.g., *Hester Industries, Inc. v. Stein, Inc.*, 963 F.Supp. 1403 (E.D. Va. 1997) (defendant's motion for summary judgment granted on question of validity), *aff'd*, 142 F.3d 1472 (Fed. Cir.), *cert. denied*, 119 S.Ct. 372 (1998); *Black & Decker (U.S.) Inc. v. Universal Sec. Instruments, Inc.*, 931 F.Supp. 427 (E.D. Va. 1996) (one defendant's motion for summary judgment granted on issue of infringement in multi-defendant patent case).

make mini-arguments to the jury in the course of the trial so that the jury will understand clearly what the parties positions are on the various issues as they are hearing the testimony. These mini-arguments typically last less than five minutes. Another helpful jury aid is the use of demonstrative evidence of all kinds, including video animations, although these often raise troublesome relevancy and admissibility issues. Finally, I invariably use special verdict forms designed to provide the jury with an analytical pathway for their decision-making.[16]

One often-proposed technique to enhance jury understanding that I shun is allowing jurors to ask questions. I think it a mistake to do so. I tried this technique once, and the questions I received from the jury confirmed my judgment to avoid this practice; jurors focused on irrelevant matters. Their questions were unhelpful and reflected more desire to take over the lawyers' jobs than to understand the case. Another sometimes-proposed technique that I do not agree with is the suggestion that jurors should be allowed to discuss the case prior to their deliberations at the end of the case. This technique seems likely to create more heat than light in the jury, because those who think (usually mistakenly) they understand the issues early on in the case will try to persuade those who are more cautious in their assessments, and this can lead to resentment among the more cautious jurors.

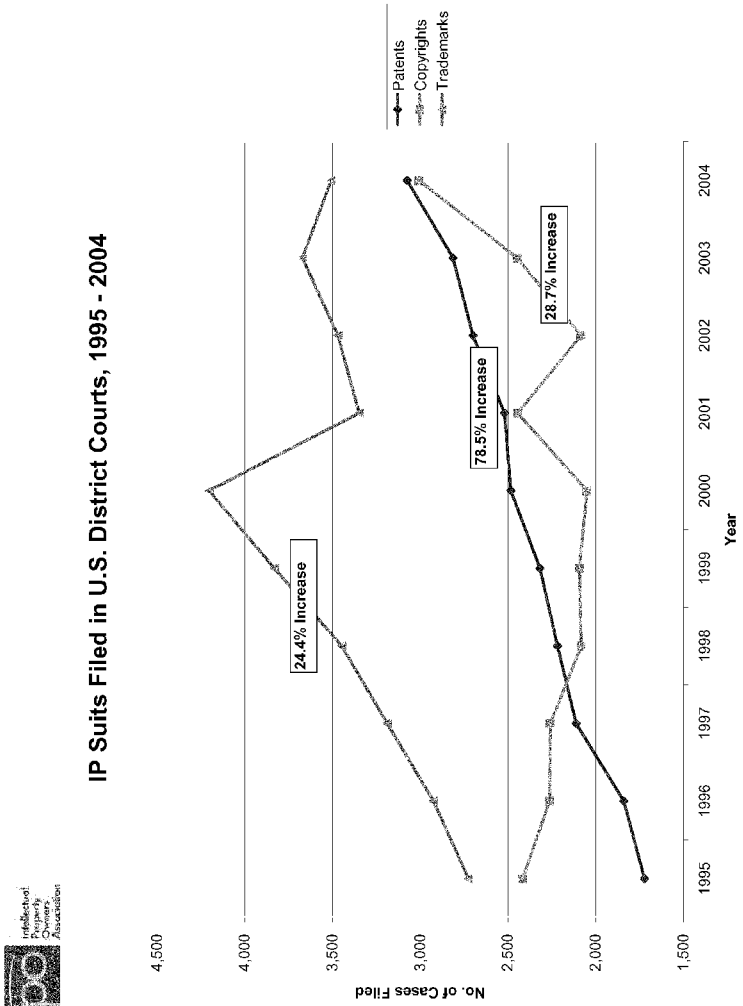
Finally, I should note that the most important factor in jury understanding is a good trial lawyer who lucidly tells an entertaining and informative story. Every trial lawyer must entertain and inform. Without doing both, the lawyer will not persuade the jury. To be entertaining, the trial lawyer must be brief and lucid. It is no accident that TV shows are more often then not one-half hour long in length, rather than two or three hours in length. It is difficult to retain a juror's attention for long periods of time.

Well, let me end by asking the question that I can only partially answer: Is this so-called "rocket docket" really a good way to process complex patent litigation? There are several components to this question: Does the "rocket docket" allow enough time for a full and fair hearing of the issues? That is, does it give the judge enough time to come to grips with the technical issues and to understand and decide them? I think it does, but of

16 The Federal Circuit strongly urges district courts to use special verdicts of this sort. See *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350 (Fed. Cir. 1984) (recognizing that the use of special interrogatories facilitates appellate review, as it frees the reviewing court from having to survey every possible basis for a jury's decision, and helps avoid lengthy retrials).

course, I may not be the best arbiter of this. Second, do the parties feel they have been fully and fairly heard? This is an important question. Again, I cannot give you an answer, but there are plenty of consumers of the "rocket docket," so you should ask them. Finally, is it cheaper? Well, this, too, is an empirical question. Intuitively, I think it must be cheaper. Some will say that if you have a shorter discovery and trial preparation period, the parties will be more focused. In any event, whether a "rocket docket" is cheaper is an empirical question worth exploring, as is the overall question of whether the "rocket docket" is a good method of processing patent litigation. I would be delighted to have any of your comments on any of these matters. Thank you.

CHARTS PREPARED BY THE INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) ON IP LITIGATION COMMENCED IN THE U.S. DISTRICT COURTS, 1993–2004, AND IP SUITS FILED IN U.S. DISTRICT COURTS, 1995–2005



Source: Annual Reports of the Director, Administrative Office of the U.S. Courts, 2004 – 1997, http://www.uscourts.gov/judbususc/judbus.html

Intellectual Property Owners Association (IPO)

IP Litigation Commenced in the U.S. District Courts
1993 - 2004

Year	Copyright	Patent	Trademark	Total IP	Total Original Filings
1993	2,588	1,553	2,419	6,560	
1994	2,828	1,617	2,457	6,902	186,775
1995	2,417	1,723	2,726	6,866	190,731
1996	2,263	1,840	2,925	7,028	204,409
1997	2,258	2,112	3,189	7,559	209,124
1998	2,082	2,218	3,448	7,748	199,197
1999	2,093	2,318	3,831	8,242	204,329
2000	2,050	2,484	4,204	8,738	212,389
2001	2,446	2,520	3,348	8,314	203,931
2002	2,084	2,700	3,470	8,254	197,960
2003	2,448	2,814	3,672	8,934	192,560
2004	3,007	3,075	3,508	9,590	217,266
2005	?	?	?		
% change over 10-year period ('95 to '04)	24.4%	78.5%	28.7%	39.7%	13.9%