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SHOULD THE UNITED STATES DESIGNATE SPECIALIST PATENT TRIAL JUDGES? AN  
EMPIRICAL ANALYSIS OF H.R. 628 IN LIGHT OF THE ENGLISH EXPERIENCE AND THE WORK  
OF PROFESSOR MOORE

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The United States Court of Appeals for the Federal Circuit currently reverses from one-third to nearly one-half of all U.S. district court patent claim construction decisions. Because claim construction often determines the outcome of patent litigation, the high appellate claim construction reversal rate contributes to significant uncertainty among inventors and investors. Congress is currently considering legislation, H.R. 628, which will designate specialist district court patent judges to reduce this unacceptably high reversal rate.

This Article concludes that designation of specialist patent trial judges among the federal district court judiciary is likely to reduce the high appellate claim construction reversal rate, based upon an empirical analysis of the appellate claim construction reversal rate in England, which has specialized patent tribunals. Part I of the Article examines

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proposed U.S. legislation that would designate specialized patent trial judges. Part II analyzes the patent claim construction process in the United States, enumerating the challenges faced by generalist U.S. district court judges charged with deciding highly complex patent litigation actions. Part III then examines the English patent claim construction process, drawing numerous parallels between patent litigation in the United States and England that render the English system a valid comparator when considering the respective appellate claim construction reversal rates in the two jurisdictions. Part IV presents empirical results that strongly support the notion that designation of specialist patent trial judges in the United States could indeed decrease the appellate claim construction reversal rate, thereby affording certainty to patent litigants and investors. Part V then explains why the approach proposed in H.R. 628 is superior to the current English system of specialized patent trial courts.

## I. INTRODUCTION

The U.S. Congress is currently considering legislation, H.R. 628, which would “establish a pilot program in certain United States district courts to encourage enhancement of expertise in patent cases among district judges.”<sup>2</sup> This legislation aims to foster increased patent trial experience among U.S. district court judges in order to reduce the United States Court of Appeals for the Federal Circuit’s (the Federal Circuit)<sup>3</sup> high rate of reversal of U.S. district court decisions pertaining to technical and substantive patent law issues.<sup>4</sup> Many scholars,<sup>5</sup> judges,<sup>6</sup> and legislators<sup>7</sup> have decried the results of the current system, with its high reversal rate, as unacceptable.

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<sup>2</sup> H.R. 628, 111th Cong. (2009), available at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111\\_cong\\_bills&docid=f:h628rfs.txt.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h628rfs.txt.pdf) (last visited Apr. 21, 2009).

<sup>3</sup> See *infra* notes 41-49 and accompanying text regarding the establishment and role of the Federal Circuit.

<sup>4</sup> H.R. 628 specifies that the Director of the Administrative Office of the United States Courts shall submit to the Committee on the Judiciary of the Senate a report including, among other things, a comparison of “the rate of reversal by the Court of Appeals for the Federal Circuit, of such cases on the issues of claim construction and substantive patent law.” H.R. 628, 111<sup>th</sup> Cong. §1(e)(1)(C)(i) (2009). Claim construction is the process by which the court determines what invention is claimed in the patent application. See *infra* notes 22-34 and accompanying text for an explanation of the claim construction phase of patent litigation.

<sup>5</sup> See Gretchen A. Bender, *Uncertainty and Unpredictability in Patent Litigation: The Time Is Ripe for a Consistent Claim Construction Methodology*, 8 J. Intell. Prop. L. 175, 207 (2001) (finding that the Federal Circuit reversed 40 percent of the 160 claim constructions appealed from the 1996 *Markman* decision through 2000); Christian A. Chu, *Empirical Analysis of the Federal Circuit’s Claim Construction Trends*, 16 Berkeley Tech. L.J. 1075, 1100-01, 1104 (2001) (finding that the Federal Circuit reversed 44 percent of the 179 district court claim constructions that were appealed from January 1, 1998 to April 30, 2000); Kimberly A. Moore, *Markman Eight Years Later: Is Claim Construction More Predictable?*, 9 Lewis & Clark L. Rev. 231, 238-39 (2005) [hereinafter Moore, *Markman*] (finding that the Federal Circuit determined that the district courts wrongly interpreted 34.5 percent of all claim terms that were appealed from 1996 to 2003, when considering the claims on a term-by-term basis, and that the figure would be 37.5 percent when considering the percentage of cases in which one or more claim terms was misconstrued); Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 Harv. J.L. & Tech. 1, 8-12 (2001) [hereinafter Moore, *Are District Court Judges Equipped*] (finding that district court judges improperly construed patent claims in 33 percent of the cases appealed to and decided by the Federal Circuit during the period between April 23, 1996 and December 31, 2000); Ajay Singh, *Interlocutory Appeals in Patent Cases Under 28 U.S.C. § 1292(c)(2): Are They Still Justified and Are They Implemented Correctly?*, 55 Duke L.J. 179, 179 nn.3-4 (2005) (collecting authorities asserting reversal rates of 33 to 71 percent); Symposium, *A Panel Discussion: Claim Construction from the Perspective of the District Judge*, 54 Case W. Res. L. Rev. 671, 680 (2004) (noting a survey showing that the claim construction reversal rate for the six months prior to this study was 71 percent and that the rate for the prior year was 58 percent);

Many commentators attribute the relatively high claim construction reversal rate to the fact that federal district court judges lack “both technical training and frequent exposure to patent cases in general and patent claim construction issues in particular.”<sup>8</sup> One potential legislative solution to this problem, H.R. 628, was reintroduced in the House of Representatives on January 22, 2009 by Representative Darrell E. Issa (R-CA) where it passed overwhelmingly.<sup>9</sup> As explained in one summary of the bill, H.R. 628 aims to improve patent jurisprudence by establishing a ten-year pilot program permitting certain trial judges in specific districts to decline patent cases and other judges in those districts to choose to accept such cases, thereby creating a cadre of specialist judges in particular districts.<sup>10</sup> Legislators hope that enhancing the patent expertise of trial judges will introduce efficiencies in the patent litigation process that will not only reduce the rate at which the Federal Circuit reverses trial court patent decisions, but will also reduce the

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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 in 2001 the Federal Circuit reversed 41.5 percent of trial court *Markman* hearing claim construction decisions).

<sup>6</sup> See *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1476 & n.16 (Fed. Cir. 1998) (Rader, J., dissenting from the pronouncements on claim interpretation in the en banc opinion, concurring in the judgment) (citing a 38.3 percent reversal rate during the period from the 1995 *Markman* decision until November 1997).

<sup>7</sup> See 152 Cong. Rec. H7851 (daily ed. Sept. 28, 2006) (statement of Rep. F. James Sensenbrenner (R – WI)) (indicating that “the rate of reversal on claim construction issues remains excessive”).

<sup>8</sup> William C. Rooklidge & Mansi H. Shah, *Creation of the Right to Interlocutory Appeal of Patent Claim Construction Rulings and Mandatory Stay Pending Appeal*, The Coalition for 21st Century Patent Reform, July 10, 2007, at 8, [http://www.patentsmatter.com/issue/pdfs/Interlocutory\\_Review\\_Paper.pdf](http://www.patentsmatter.com/issue/pdfs/Interlocutory_Review_Paper.pdf) (citing federal judges and scholars who emphasize the beneficial effect upon appellate judicial decision-making in patent cases due to the judges’ technical training and frequent exposure to patent litigation). See *infra* notes 44-49 and accompanying text for a fuller description of the expertise of the judges of the Federal Circuit.

<sup>9</sup> The Library of Congress, Thomas, <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:h.r.00628>: (last visited Apr. 21, 2009). The accompanying Senate bill, S. 299, was introduced in the Senate and referred to the Committee on the Judiciary. The Library of Congress, Thomas, <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:SN00299>: (last visited Apr. 29, 2009). The bill was previously introduced as H.R. 34 in the 110th Congress. The Library of Congress, Thomas, <http://thomas.loc.gov/cgi-bin/bdquery/z?d110:h.r.00034>: (last visited Apr. 21, 2009).

<sup>10</sup> H.R. 628, 111th Cong. § 1(a)(1)(B)-(C) (2009), available at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111\\_cong\\_bills&docid=f:h628rfs.txt.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h628rfs.txt.pdf) (last visited Apr. 21, 2009),

time and expense of patent litigation, thereby providing needed certainty to inventors and investors.<sup>11</sup>

If enacted, H.R. 628 would establish a program whereby the chief judge of a judicial district involved in the pilot project would designate certain district court judges who request to hear cases involving patent or plant variety protection issues. Such cases would still be randomly assigned to district court judges, regardless of whether the judges are so designated. However, a judge not designated to whom such a case was assigned could decline to accept the case,<sup>12</sup> and the case would then be randomly reassigned to one of the designated judges.<sup>13</sup> The pilot program would involve at least five U.S. district courts in at least three different judicial circuits, and these courts would be among the fifteen district courts in which the largest number of patent cases were filed in the most recent calendar year.<sup>14</sup> H.R. 628 also allots five million dollars annually to educate judges who opt to hear patent cases, as well as for the compensation of law clerks with technical expertise to assist these judges.<sup>15</sup>

This Article concludes that designation of specialist patent trial judges among the judges of the U.S. district courts is likely to reduce the high appellate claim construction reversal rate, based upon an empirical analysis of the appellate claim construction reversal rate in England, which has a system of specialist patent tribunals and a legal system comparable to our own. Part II of this Article analyzes the patent claim construction process in the United States, enumerating the challenges faced by generalist U.S. district court judges charged with deciding highly complex patent litigation actions. Part III then examines the English patent claim construction process, drawing numerous

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<sup>11</sup> 152 Cong. Rec. H7851 (daily ed. Sept. 28, 2006) (statement of Rep. F. James Sensenbrenner (R-WI)) (testifying that “[i]t is widely recognized that patent litigation has become too expensive, too time consuming, and too unpredictable” and asserting that the bill, then H.R. 34, addresses these concerns).

<sup>12</sup> Typically, federal district court judges must have senior status in order to decline cases. See Nancy Olson, Comment, *Does Practice Make Perfect? An Examination of Congress’s Proposed District Court Patent Pilot Program*, 55 UCLA L. Rev. 745, 780 (2008) (stating that senior judges who currently do not wish to hear patent cases “already frequently pass them along to junior judges”); cf. William Spade, Jr., *Beyond the 100:1 Ratio: Towards a Rational Cocaine Sentencing Policy*, 38 Ariz. L. Rev. 1233, 1282 n.299 (1996) (citing examples of federal district court judges who have elected to take senior status in order to avoid sentencing drug cases according to the federal mandatory minimum sentencing guidelines).

<sup>13</sup> See H.R. 628 § 1(a)(1) (2009). The purpose of the random case assignment is to minimize forum shopping. 152 Cong. Rec. H7851 (daily ed. Sept. 28, 2006) (statement of Rep. F. James Sensenbrenner (R-WI)) (testifying that the bill “preserves the continued random assignment of cases to prevent the pilot districts from becoming magnets for forum-shopping litigants”).

<sup>14</sup> H.R. 628 § 1(b) (2009). The legislation further specifies that the Director of the Administrative Office of the United States Courts may only designate a court in which at least ten district judges are authorized for presidential appointment and at least three of the judges have requested to hear such cases. *Id.*

<sup>15</sup> *Id.* § 1(f).

parallels between patent litigation in the United States and England that render the English system a valid comparator when considering the respective appellate claim construction reversal rates in the two jurisdictions. In Part IV, this Article presents empirical results that strongly support the notion that designation of specialist patent trial judges in the United States could indeed lessen the appellate claim construction reversal rate, thereby lending certainty to investors and litigants involved in the patent process. Part V then explains why H.R. 628 is superior to one proposed alternative, which is the implementation of a specialized U.S. patent trial court.

## II. THE PATENT CLAIM CONSTRUCTION PROCESS IN THE UNITED STATES

Like other legal actions, a patent action proceeds in the U.S. district court where the defendant resides or has minimum contacts,<sup>16</sup> as long as venue requirements are satisfied.<sup>17</sup> As one commentator noted, “While personal jurisdiction is meant to ensure that the court has legal authority over the litigants, venue rules are designed to promote fairness and efficiency by requiring that a suit be litigated where most convenient for both parties.”<sup>18</sup> Under the patent venue statute, “[a]ny civil action for patent infringement may 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.”<sup>19</sup> Presently, the most popular venues for patent litigation are the Northern and Central Districts of California, the Eastern District of Texas, the District Court of Delaware, the Eastern District of Virginia, the Northern District of Illinois, and the Eastern and Southern Districts of New York.<sup>20</sup> Factors that may account for the popularity of these districts are

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<sup>16</sup> See Yan Leychkis, *Of Fire Ants and Claim Construction: An Empirical Study of the Meteoric Rise of the Eastern District of Texas as a Preeminent Forum for Patent Litigation*, 9 *Yale J.L. & Tech.* 193, 196 (2007) (“Personal jurisdiction generally exists where the defendant has had ‘minimal contacts’ with the forum and has ‘purposefully availed himself’ of commercial benefits from his affiliation with the forum.” (citations omitted)). U.S. patent law provides that federal courts have exclusive jurisdiction over all patent infringement matters. *Id.*

<sup>17</sup> *Id.* (“As a general matter, the rules of civil procedure dictate that a civil lawsuit may be brought in any court having personal and subject matter jurisdiction, as long as venue requirements are met.”).

<sup>18</sup> *Id.* at 197.

<sup>19</sup> 28 U.S.C. § 1400(b) (2006).

<sup>20</sup> Reed Smith, *Practice Areas & Industry Groups: Patent Litigation*, [http://www.reedsmith.com/practice\\_areas\\_&\\_industry\\_groups.cfm?widCall1=customWidgets.content\\_view\\_1&cit\\_id=8488](http://www.reedsmith.com/practice_areas_&_industry_groups.cfm?widCall1=customWidgets.content_view_1&cit_id=8488) (last visited June 19, 2008); *see also* Leychkis, *supra* note 16, at 204 (citing the top ten patent litigation venues for the period from 2002 to 2006).

the reputation of [the] district's judges and their experience in patent matters, the swiftness of adjudication in that district, whatever local patent rules exist, the likelihood of getting to jury trial, the likelihood of winning the case, the leanings of the local jury pool, the relative reputations of the parties in the district, and the simple geographic convenience.<sup>21</sup>

According to Judge Plager of the Federal Circuit, among the most important challenges facing the trial judge in a patent action is to determine what invention is claimed by the patent at issue; this phase of the trial is called claim construction.<sup>22</sup> As one scholar explained, under both U.S. and English law, claims are included as part of the patent application and are designed to determine the extent of the patent's protection by demarcating what is old and obvious, and therefore unpatentable, from that which is new and inventive.<sup>23</sup> The claims also put the public on notice of the patentee's rights.<sup>24</sup> As noted by Professor Moore, now a Federal Circuit Court judge, "[d]efining the meaning and scope of the claim terms is the first step in any patent infringement analysis."<sup>25</sup>

In addition to being the first step in a patent infringement suit, determination of the scope of the patent claims is important since "to decide what the claims mean is nearly always to decide the case."<sup>26</sup> Judge Giles Rich, one of the principal authors of the U.S. Patent Act, is often quoted as stating that "the name of the game is the claim."<sup>27</sup>

In order to ensure predictability and clarity in the claim construction phase of the trial, the United States Supreme Court unanimously held in *Markman v. Westview Instruments, Inc.* that claim construction is "exclusively within the province of the court," thereby removing the responsibility from juries.<sup>28</sup> Thus, under *Markman*, trial judges

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<sup>21</sup> Leychkis, *supra* note 16, at 202.

<sup>22</sup> See S. Jay Plager, Challenges for Intellectual Property Law in the Twenty-First Century: Indeterminacy and Other Problems, 2001 U. Ill. L. Rev. 69, 71.

<sup>23</sup> Matthew Fisher, *The Tyranny of Words: Patent Claim Construction in the UK and US*, 36 Common L. World Rev. 262, 265-66 (2007).

<sup>24</sup> *Id.* at 266.

<sup>25</sup> Moore, *Are District Court Judges Equipped*, *supra* note 5, at 5 (internal citations omitted).

<sup>26</sup> *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 989 (Fed. Cir. 1995) (Mayer, C.J., concurring); see also Moore, *Are District Court Judges Equipped*, *supra* note 5, at 8 ("How the judge construes the patent claims is often dispositive of the infringement and validity analysis.").

<sup>27</sup> Fisher, *supra* note 23, at 266 & n.18 (quoting Giles S. Rich, *Extent of Protection and Interpretation of Claims - American Perspectives*, 21 Int'l Rev. Indus. Prop. & Copyright L., 497, 499 (1990)).

<sup>28</sup> *Markman v. Westview Instruments, Inc. (Markman II)*, 517 U.S. 370, 372 (1996), *aff'g Markman I*, 52 F.3d 967, 978-79 (Fed. Cir. 1995) (en banc).

“bear the initial responsibility for claim interpretation,”<sup>29</sup> a complex task requiring understanding of the technology involved.<sup>30</sup> District court judges generally hear the evidence and argument regarding claim construction either in summary judgment briefing or in a mini-trial called a *Markman* hearing.<sup>31</sup> Moreover, in reaching a decision, a district court judge “attempt[s] 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 claim means,” because patent claims are interpreted from the perspective of “one of ordinary skill in the art to which the patent pertains,” not a “reasonable man” standard.<sup>32</sup> Patent claims are particularly difficult to decipher both because patent lawyers draft claims quite broadly in order to cover as many future variants as possible, and also because the U.S. Patent and Trademark Office requires that each claim be drafted as a single sentence, no matter its length.<sup>33</sup>

Judge Plager of the Federal Circuit describes the claim construction challenge facing trial court judges as follows:

The way the language of the claims is construed is often outcome-determinative in a patent-infringement suit. Though there are exceptions, the structure of the accused device usually is not hard to determine; the question is always whether the claims read on, i.e., cover, that structure. So reading claims is an art of sorts, involving half technology and half linguistics. To many trial judges it is a foreign art; understandably, they are not batting 1.000 (more like .500).<sup>34</sup>

Compounding the challenge of deciding the complex technical issues raised in patent cases is the fact that most federal district court judges have very little patent trial experience. Estimates suggest that a district court judge presides over less than one

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<sup>29</sup> Plager, *supra* note 22, at 71.

<sup>30</sup> See *id.*

<sup>31</sup> See Moore, *Are District Court Judges Equipped*, *supra* note 5, at 7 (explaining that district court judges have broad discretion over when and whether to hold a *Markman* hearing, and over the evidence they will admit); see also Thomas K. McBride, *Patent Practice in London – Local Internationalism: How Patent Law Magnifies the Relationship of the United Kingdom with Europe, the United States, and the Rest of the World*, 2 *Loy. U. Chi. Int’l Rev.* 31, 54-55 (2004-05) (stating that, after *Markman*, “a bifurcation is required for almost every patent trial, where the first step now consists of a *Markman* hearing in order to decide claim construction and validity, and the second step consists of a jury trial applying the constructed claims after judicial interpretation to any relevant facts on infringing devices”).

<sup>32</sup> Moore, *Are District Court Judges Equipped*, *supra* note 5, at 6 (citations omitted).

<sup>33</sup> See Plager, *supra* note 22, at 71.

<sup>34</sup> *Id.*



patent trial per year on average.<sup>35</sup> What is more, according to Judge James Holderman of the Northern District of Illinois, because district court judges must be generalists in order to deal with their large and diverse caseloads, they “typically cannot concentrate on staying abreast of the changing nuances of any specific area of the law.”<sup>36</sup> Judge Avern Cohn of the Eastern District of Michigan explains that “[D]istrict judges have to constantly learn and re-learn patent law. They simply cannot keep current with developments in the law.”<sup>37</sup> Judge Plager further notes that few federal district judges have technical or patent law backgrounds and that judges are unlikely to choose law clerks with such expertise.<sup>38</sup> Furthermore, as one source noted, even in those judicial districts with very frequent patent litigation, such cases are randomly assigned.<sup>39</sup> As a result, even judges in these active patent venues do not develop patent expertise.<sup>40</sup>

While U.S. patent cases are tried before generalist courts, at the appellate level patent cases come before the specialized United States Court of Appeals for the Federal Circuit.<sup>41</sup> Congress established the Federal Circuit in 1982 and granted it exclusive

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<sup>35</sup> See 152 Cong. Rec. H7852 (daily ed. Sept. 28, 2006) (statement of Rep. Smith (R-Tex.)) (“On average, an individual federal judge has only 1 patent case go all the way through trial every 7 years, which means trial-level judges may have no more than 3 or 4 such cases over their entire judicial career.”); Plager, *supra* note 22, at 77 (estimating that, over a five-year-period, the average district court judge heard around three patent cases); cf. Judge James Holderman et al., *The Patent Litigation Predicament in the United States*, 2007 Univ. of Ill. J.L. Tech. & Pol’y 101, 104-05 (estimating that, during the twelve-month period ending March 31, 2006, the average federal district court judge received approximately four patent case filings).

<sup>36</sup> Holderman, *supra* note 35, at 104.

<sup>37</sup> Improving Federal Court Adjudication of Patent Cases: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Property of the H. Comm. on the Judiciary, 109th Cong. 21-22 (2005) [hereinafter Hearing] (statement of John B. Pegram) (quoting Avern Cohn, Tenth Annual Judicial Conference of the Court of Appeals for the Federal Circuit, 146 F.R.D. 205, 372 (1993)).

<sup>38</sup> Plager, *supra* note 22, at 77.

<sup>39</sup> Holderman, *supra* note 35 (“Each new civil complaint as it is filed in a United States District Court is assigned at random to a particular judge of the district court in which that complaint is filed.”).

<sup>40</sup> See Holderman, *supra* note 35, at 104-05 (explaining that, although the judge’s district is the fifth busiest in the country for intellectual property litigation, in 2006 less than one percent of the district’s docket concerned patents); Cono Carrano et al., *Patent Rocket Dockets: Coming Soon to a Venue Near You?*, Intell. Prop. Today, Dec. 2006, at 10 (stating that “random case assignments prevent many judges from accumulating patent litigation experience,” even in courts that “frequently hear these controversies”).

<sup>41</sup> United States Court of Appeals for the Federal Circuit, About the Court, <http://www.cafc.uscourts.gov/about.html> (last visited May 2, 2009). The jurisdiction of the Federal Circuit is not limited to patent appeals, but also includes appeals from the United States Court of Federal Claims, the United States Court of International Trade, and the United States

appellate jurisdiction over patent cases<sup>42</sup> in order to harmonize patent law among the circuits and also to reduce forum shopping.<sup>43</sup> One Federal Circuit judge estimated that each judge on his court hears about forty patent cases annually, which affords the opportunity to develop significant expertise.<sup>44</sup> What is more, some Federal Circuit judges have technical backgrounds.<sup>45</sup> While commentators have rejected the notion that Federal Circuit judges truly have superior relevant technical experience as compared to their colleagues at the trial level,<sup>46</sup> it should be noted that each Federal Circuit judge enjoys the assistance of three law clerks,<sup>47</sup> most of whom have scientific training,<sup>48</sup> as well as help from a small central staff of technical advisors.<sup>49</sup>

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Court of Appeals for Veterans Claims. *Id.* The court also takes appeals of certain administrative agencies' decisions, including the United States Merit Systems Protection Board, the Board of Contract Appeals, the Board of Patent Appeals and Interferences, and the Trademark Trial and Appeals Board. *Id.*

<sup>42</sup> See Federal Courts Improvement Act of 1982, Pub. L. 97-164, 96 Stat. 25 (1982) (codified at 28 U.S.C. § 1295(a)(1) (2006)).

<sup>43</sup> See *id.*; H.R. Rep. No. 97-312, at 23 (1981) ("A single court of appeals for patent cases will promote certainty where it is lacking to a significant degree and will reduce, if not eliminate, the forum-shopping that now occurs."); see also LeRoy L. Kondo, *Untangling the Tangled Web: Federal Court Reform Through Specialization for Internet Law and Other High Technology Cases*, 2002 UCLA J.L. & Tech. 1, 19 ("[T]he Federal Circuit was established to provide uniformity in the application of intellectual property law, prevention of forum shopping among federal courts, and specialized expertise in a complex body of law." (citations omitted)).

<sup>44</sup> Plager, *supra* note 22, at 78. Another Federal Circuit judge estimated the number of patent appeals as "perhaps 60 or 70 per judge per year" as compared to the few patent cases a typical trial judge hears annually. Judge Alan D. Lourie, Speech to PTC Section of D.C. Bar (June 12, 2000), in 60 Pat., Trademark & Copyright J. 147, ¶17 (2000) [hereinafter Lourie].

<sup>45</sup> See United States Court of Appeals for the Federal Circuit, Judicial Biographies, <http://www.cafc.uscourts.gov/judgbios.html> (last visited Apr. 8, 2009) (seven of the sixteen Federal Circuit judges, Judges Gajarsa, Linn, Lourie, Mayer, Moore, Newman, and Prost, have technical educational credentials); see also Federal Judicial Center, Biographical Directory of Federal Judges, <http://www.fjc.gov/public/home.nsf/hisj> (last visited Mar. 24, 2008).

<sup>46</sup> See Moore, *Markman*, *supra* note 5, at 245 (explaining that a relatively low percentage of Federal Circuit judges actually have technical training and that these particular judges do not reverse district court claim construction rulings any more often than their non-technically trained colleagues); see also Stuart Minor Benjamin & Arti K. Rai, *Who's Afraid of the APA? What the Patent System Can Learn From Administrative Law*, 95 Geo. L.J. 269, 315 (2007) ("[I]t is not clear that Federal Circuit judges know more about any given technology than a generalist judge would. The specialization required to understand the underlying technologies is so great that a background in patent law—or even a general science background—will provide little advantage when a judge is dealing with factual findings on a complex technological matter.").

<sup>47</sup> See Rooklidge & Shah, *supra* note 8, at 8.

In addition to the enhanced patent trial experience, technical training, and technical assistance Federal Circuit judges enjoy, another possible cause of the high appellate reversal rate of trial court claim construction decisions is the standard of review that the Federal Circuit applies in considering such decisions.<sup>50</sup> Because *Markman I* deemed claim construction a legal, rather than a factual, matter that therefore must be decided by judges rather than juries,<sup>51</sup> the Federal Circuit reviews de novo claim construction decisions of the federal district courts.<sup>52</sup> As one federal district court judge explained, the de novo standard of review permits the Federal Circuit to “look at our determinations anew and determine the correctness of our rulings” as to claim construction “based upon what counsel for the parties present to the Court of Appeals for the Federal Circuit by way of both factual and legal argument, not what was presented to us trial court judges.”<sup>53</sup>

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<sup>48</sup> See Lourie, *supra* note 44, ¶18 (“Perhaps 80 to 90% of our law clerks have technical backgrounds to help us understand the patents, a benefit trial judges rarely have.”).

<sup>49</sup> See *Hearing*, *supra* note 37, at 23; see also Benjamin & Rai, *supra* note 46, at 314 (stating that the Federal Circuit has “a small technical staff”).

<sup>50</sup> See *Cybor v. FAS Tech., Inc.*, 138 F.3d 1448, 1476 (Fed. Cir. 1998) (Rader, J., dissenting from the pronouncements on claim interpretation in the en banc opinion, concurring in the judgment) (critiquing the de novo standard of review in patent claim construction cases, which he stated has resulted in a nearly 40 percent reversal rate since *Markman I*); see also Moore, *Markman*, *supra* note 5, at 232 n.2 (gathering citations in support of the argument that the current claim construction process is flawed due to the Federal Circuit’s de novo review as well as its lack of guidance to lower courts, and opining that such criticism is warranted). For interesting hypotheses regarding other possible causes of the instability between trial and appellate decisions regarding claim construction, see Jeffrey A. Lefstin, *The Measure of the Doubt: Dissent, Indeterminacy, and Interpretation at the Federal Circuit*, 58 *Hastings L.J.* 1025, 1094 (2007) (stating that while “[s]pecialized courts would undoubtedly improve administration of patent litigation,” empirical analysis indicates that “the indeterminacy of patent law, rather than the application of patent law by the district courts or the Federal Circuit’s review of the district courts, is responsible for” the high appellate reversal rate of trial court patent claim construction decisions). See also Jeffrey A. Lefstin, *Claim Construction, Appeal, and the Predictability of Interpretive Regimes*, 61 *U. Miami L. Rev.* 1033, 1050-63 (2007) (contending that the high appellate claim construction reversal rate may stem from differences in the content and order of presentation of the information trial and appellate judges considered in patent proceedings and advocating for standardization of the order and mode in which information is received and processed during the claim construction inquiry).

<sup>51</sup> *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978-79 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996) (“Because claim construction is a matter of law, the construction given the claims reviewed is de novo on appeal.”).

<sup>52</sup> *Cybor*, 138 F.3d at 1456 (holding that claim construction is “a purely legal question” that would be reviewed “de novo on appeal including any allegedly fact-based questions relating to claim construction”).

<sup>53</sup> Holderman, *supra* note 35, at 107 (citation omitted).

While the Federal Circuit has the authority to review district court claim construction decisions de novo, the appellate court has provided scant and often conflicting guidance to the lower courts in terms of methodology to be applied in conducting the claim construction process.<sup>54</sup> This lack of guidance is to some extent unavoidable given that judges face significant factual differences in each claim construction matter that render claim construction in one case inapplicable to another. What is more, the definition of a claim term in one patent has no precedential effect upon the meaning to be given to the same claim term used in another patent in a different field of art.<sup>55</sup>

An additional procedural complexity facing district court judges is the failure of the Federal Circuit to provide district court judges “with a set of uniform rules for the timing” of the *Markman* claim construction hearing.<sup>56</sup> Eighty-one percent of district courts hold claim construction hearings, and the timing of such hearings varies greatly.<sup>57</sup> According to one commentator, fifty-eight percent of claim construction rulings occur after discovery but before trial; twenty-two percent are held during discovery; twelve percent take place at trial, and only eight percent are held before discovery.<sup>58</sup> Furthermore, since the Supreme Court’s decision in *Markman*, district courts are twice as likely to decide patent cases based on summary judgment.<sup>59</sup> According to Judge Holderman, “The ad hoc manner in which claim construction is decided increases unpredictability and expense, especially if, after discovery, and a trial or determination on a motion for summary judgment, a Federal Circuit panel reverses the district court’s claim construction.”<sup>60</sup>

In light of the challenges facing district court judges engaged in patent claim construction, it is not surprising that the Federal Circuit reverses an estimated thirty to

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<sup>54</sup> See *id.* at 108-09 (explaining that although the Federal Circuit has denoted the sources that district court judges must consult in reaching claim construction decisions, the appellate court has not set forth the “value and weight to be accorded any inconsistent information stemming” from these sources).

<sup>55</sup> See *id.* at 109-10.

<sup>56</sup> *Id.* at 110.

<sup>57</sup> Cheryl L. Johnson, Why Judges are Destined to Flunk Their *Markman* Tests: The History of Their Claim Construction Assignment, 873 PLI/PAT 9, 59 (2006).

<sup>58</sup> *Id.*

<sup>59</sup> See *id.* at 61. As one commentator noted, “parties often resort to filing summary judgment motions in the hope that the court will hold a *Markman* hearing to decide the claim construction issue, even if the overall summary judgment motion is unsuccessful.” Robert C. Weiss et al., *Markman Practice, Procedure and Tactics, in Patent Litigation 2000* 148, 149 (PLI Intell. Prop. Course Handbook Series No. G-619, 2000).

<sup>60</sup> Holderman, *supra* note 35, at 110.

fifty-three percent of all patent cases on appeal.<sup>61</sup> This compares unfavorably to an average reversal rate of less than nine percent for all district court decisions appealed to the regional courts of appeals.<sup>62</sup>

In an effort to improve the claim construction process, and avoid reversal at the appellate level, many district court judges are implementing a solution that presages H.R. 628. Commentators explain that “[a]n increasing number of district court judges are delegating claim construction to, or obtaining assistance regarding claim construction from, special masters<sup>63</sup> [and] ‘technical consultants’<sup>64</sup> who are often compensated by the parties.<sup>65</sup>

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<sup>61</sup> See Carrano, *supra* note 40, at 10; see also *supra* notes 5-7 and accompanying text regarding appellate claim construction reversal rates.

<sup>62</sup> Office of Judges Programs, Admin. Office of the U.S. Courts, Federal Judicial Caseload Statistics March 31, 2007 27 tbl.B-5 (2007), *available at* <http://www.uscourts.gov/caseload2007/tables/B05Mar07.pdf> (giving data for the 12-month period ending March 31, 2007). The Federal Circuit itself had a 13 percent reversal rate for all 1,678 cases before the court during the twelve-month period ending March 31, 2007. *Id.* at 36 tbl.B-8, *available at* <http://www.uscourts.gov/caseload2007/tables/B08Mar07.pdf>. However, Judge Ellis of the U.S. District Court for the Eastern District of Virginia, a frequent patent litigation venue, estimates that the appellate reversal rate is approximately twenty to twenty-three percent for all cases and approximately twenty-six percent for cases involving de novo review of questions of law, and also raises the question “whether such accurate comparative reversal rates are even available.” See *Letter from Judge Ellis*, 16 Fed. Cir. B.J. 1, 1 (2006/2007).

<sup>63</sup> Rule 53 of the Federal Rules of Civil Procedure authorizes federal courts to appoint Special Masters “to assist judges in pretrial proceedings, discovery, settlement negotiations or arbitration between parties, formulating recommendations for findings of fact and conclusions of law, and devising remedies such as monetary damages or injunctive relief.” Kondo, *supra* note 43, at 80-81. For a discussion of the increased use of special masters in patent cases, see Kondo, *supra* note 43, at 80-85. See also Peter J. Chassman, *When Markman Hearings Need Special Masters*, Nat’l L.J., Oct. 22, 2001, at C8, C8 (explaining that judges sometimes appoint special masters for patent claim construction proceedings); Gregory J. Wallace, *Toward Certainty and Uniformity in Patent Infringement Cases After Festo and Markman: A Proposal for a Specialized Patent Trial Court with a Rule of Greater Deference*, 77 S. Cal. L. Rev. 1383, 1404 (2003-2004) (“The use of special masters in patent infringement trials to decide issues such as claim construction has become an accepted practice.”).

<sup>64</sup> Rooklidge & Shah, *supra* note 8, at 9 n.37 (citing Wallace, *supra* note 63, at 1404-06). For a discussion of the frequent use of technical advisors in patent claim construction hearings, see Kondo, *supra* note 43, at 74-76. In addition, Federal Rule of Evidence 706 permits federal judges to appoint expert witnesses. See Fed. R. Evid. 706(a). One survey found that Rule 706 experts are often appointed in intellectual property cases. See Kondo, *supra* note 43, at 78-80.

<sup>65</sup> See William W. Schwarzer & Joe S. Cecil, *Management of Expert Evidence*, in Reference Manual on Scientific Evidence 39, 61 (2d ed. 2000), *available at* [http://www.fjc.gov/public/pdf.nsf/lookup/sciman0c.pdf/\\$file/sciman0c.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/sciman0c.pdf/$file/sciman0c.pdf) (explaining that court appointment of technical experts and special masters increases the financial obligations of the

In lieu of this ad hoc approach to achieving technical expertise, H.R. 628 proposes to establish a pilot program that would formally designate certain district judges who would request to hear patent cases, thereby enhancing their patent litigation experience. The hope is that the creation of a specialized cadre of judges with patent trial experience would reduce the high appellate claim construction reversal rate. In order to assess the viability of H.R. 628, it is instructive to review the performance of specialized patent trial courts in England. While several nations – notably Germany, Japan, and the United Kingdom – have created specialized patent courts,<sup>66</sup> the United Kingdom provides the most useful comparison in light of the similarities between the U.S. and English patent law systems.<sup>67</sup>

### III. THE PATENT CLAIM CONSTRUCTION PROCESS IN ENGLAND

England<sup>68</sup> has established a specialized patent trial court, the Patents Courts, which is part of the Chancery Division of the High Court.<sup>69</sup> Established in 1977,<sup>70</sup> the

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parties); Kondo, *supra* note 43, at 79 (stating that expert witnesses may receive compensation from the parties).

<sup>66</sup> See Kondo, *supra* note 43, at 90-91 (describing the specialized patent courts of these nations). It should be noted that nations vary greatly in their definitions of specialized intellectual property courts. According to one report, a study conducted by the International Bar Association in September 2005 identified Korea, Thailand, Turkey, and the United Kingdom as the only countries with specialized courts that hear intellectual property cases exclusively. Ryan S. Goldstein et al., *Specialized IP Trial Courts Around the World*, *Intell. Prop. & Tech. L.J.*, Oct. 2006, at 1.

<sup>67</sup> See *infra* notes 77-85 and accompanying text for an explanation of the many parallels between the U.S. and English patent systems.

<sup>68</sup> This Article focuses specifically on the patent regime in England and Wales, where most U.K. patent cases arise. See Ladas & Parry LLP, *Patent Litigation in the United Kingdom*, [http://www.ladas.com/Litigation/ForeignPatentLitigation/UK\\_Patent\\_Litigation.html](http://www.ladas.com/Litigation/ForeignPatentLitigation/UK_Patent_Litigation.html) (last visited Apr. 21, 2009) [hereinafter Ladas & Parry] (describing England and Wales as the areas where most U.K. patent cases arise). The court system with respect to patent litigation differs significantly in Scotland and Northern Ireland. See Submission by the United Kingdom, *UK Background Paper for the WIPO Advisory Committee on Enforcement from the United Kingdom Patent Office*, WIPO/ACE/2/11 (June 21, 2004), available at [www.wipo.int/edocs/mdocs/enforcement/en/wipo\\_ace\\_2/wipo\\_ace\\_2\\_11.doc](http://www.wipo.int/edocs/mdocs/enforcement/en/wipo_ace_2/wipo_ace_2_11.doc) [hereinafter WIPO] (explaining the separate patent court systems in Scotland and Northern Ireland); see also John N. Adams & Peter Thomas, *The Patents County Court: A Report by the Intellectual Property Institute for the European Patent Organisation*, at v (1995) (on file with author).

<sup>69</sup> See Kondo, *supra* note 43, at 90 (“In England, one patent judge and four chancery judges in Patents Court, part of the Chancery Division of the High Court, hears [sic] patent disputes.”); 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, 774 (2000) (stating that one Chancery Court judge is designated to hear patent cases in the Patents Court and that several other chancery judges may be

Patents Court has jurisdiction to hear all intellectual property actions and exclusive jurisdiction to hear patent and registered design infringement cases.<sup>71</sup> In addition, in 1990 the United Kingdom Parliament created the Patents County Court (PCC), a small claimants' court geared toward disputes among small and medium-sized entities.<sup>72</sup> The jurisdiction of the PCC is coextensive with that of the Patents Court,<sup>73</sup> and both of these specialist courts share the same procedural rules.<sup>74</sup> Appeals from both the Patents Court and the PCC lie, with permission, to the generalist Court of Appeal, Civil Division.<sup>75</sup> Further appeal to the House of Lords is possible at the discretion of that court or the Court of Appeal.<sup>76</sup>

There are many similarities between the U.S. and English patent law systems that render it useful to study claim construction decisions in the specialized English patent trial courts in order to determine whether H.R. 628 would improve the claim construction process in the U.S. district courts. First, as one scholar has noted, "US patent law is ultimately grown from a British seed, for the 'newly discovered' North America inherited

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assigned to hear such cases). The Patents Court has jurisdiction over all patent disputes for which the act of infringement was committed in England or Wales. Adams & Thomas, *supra* note 68, at 14.

<sup>70</sup> David Perkins & Garry Mills, *Patent Infringement and Forum Shopping in the European Union*, 20 Fordham Int'l L.J. 549, 564 n.74 (1996) (explaining that the Patents Court was established under §96 of the 1977 Patents Act, and that even before that, English patent disputes had been assigned to specialist patent judges since the 1950s).

<sup>71</sup> WIPO, *supra* note 68, at 1.

<sup>72</sup> Pegram, *supra* note 69, at 774; *see also* Adams & Thomas, *supra* note 68, at v ("The Patents County Court was established in 1990 as an attempt to provide a cheaper tribunal before which to litigate patent disputes in England and Wales."). As the current PCC judge noted, however, there are no jurisdictional limits to the factual or legal complexity of PCC cases. *See* Michael Fysh, *The Work of the Patents County Court*, Oxford Intell. Prop. Res. Centre E-Journal of Intell. Prop. Rights, Feb. 11, 2003, at 2, available at <http://www.oiprc.ox.ac.uk/EJWP0303.pdf>.

<sup>73</sup> *See* Adams & Thomas, *supra* note 68, at 2; Pegram, *supra* note 69, at 774-75 ("Called a 'County Court' because the PCC is administratively 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."). The PCC does not, however, have jurisdiction to hear appeals from Patent Office decisions. Peter Ford, *Patent Litigation: A Better Deal for Litigants*, 12 Eur. Intell. Prop. Rev. 435, 435 (1990).

<sup>74</sup> Richard Willoughby, *Intellectual Property: The Choice Is Yours*, Legal Wk., Mar. 3, 2005, <http://www.legalweek.com/Articles/123246/Intellectual+Property+The+choice+is+yours.html> ("With the introduction of the Civil Procedure Rules (CPR) in 1999, there is no longer any difference between the High Court and county courts in procedural terms.").

<sup>75</sup> WIPO, *supra* note 68, at 2; Pegram, *supra* note 69, at 774; *see also* Adams & Thomas, *supra* note 68, at 25, 36; Kondo, *supra* note 43, at 90.

<sup>76</sup> Pegram, *supra* note 69, at 774; *see also* WIPO, *supra* note 68, at 2; Adams & Thomas, *supra* note 68, at 25.

the English law concerning monopolies upon colonization.”<sup>77</sup> Second, the basic requirements of patentability — novelty, utility, and nonobviousness — are the same in both jurisdictions.<sup>78</sup> Third, both U.S. and English law have adopted patent claims as a means of demarcating the boundaries of a patentee’s right.<sup>79</sup> Fourth, in both jurisdictions claims are directed toward a person skilled in the relevant art, meaning that the court must consider the claim from the perspective of such a person.<sup>80</sup> Fifth, the discovery process is similar in both jurisdictions, albeit more extensive in the United States.<sup>81</sup> Sixth, in both jurisdictions claim construction is a matter for a judge, not a jury.<sup>82</sup> Seventh, in both jurisdictions trial judges and appellate judges deciding patent matters are appointed for lifetime terms.<sup>83</sup> Eighth, the appellate courts in both the United States and

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<sup>77</sup> Fisher, *supra* note 23, at 271.

<sup>78</sup> See Donna M. Gitter, International Conflicts Over Patenting Human DNA Sequences in the United States and the European Union: An Argument for Compulsory Licensing and a Fair-Use Exemption, 76 N.Y.U. L. Rev. 1623, 1637-38, 1644-45 (2001) (setting forth the criteria for patentability in the U.S. and the E.U., of which the U.K. is a member).

<sup>79</sup> See Fisher, *supra* note 23, at 266-67 (explaining that patent claims are used in the both the U.K. and U.S, as well as in “all major industrialized countries”); see also John A. Duffy, *On Improving the Legal Process of Claim Interpretation: Administrative Alternatives*, 2 Wash. U. J.L. & Pol’y 109, 110 (2000) (“The success of the modern patent claim is demonstrated by its universal adoption in the patent law of all major industrialized countries.”).

<sup>80</sup> See Fisher, *supra* note 23, at 271.

<sup>81</sup> See Richard Price, *Patent Litigation in England – Quiet Revolution*, 17 Eur. Intell. Prop. Rev. 290, 290-92 (1995) (stating that the English discovery process is less of a “burden on litigants” than in the U.S.); see also Perkins & Mills, *supra* note 70, at 564 (noting that there is document discovery in the English patent litigation system, unlike in continental Europe); Ladas & Parry, *supra* note 68 (“Discovery does exist in English proceedings, although it is not as extensive as in the United States (for example, there is no deposition practice).”).

<sup>82</sup> See *supra* note 28 and accompanying text regarding the United State Supreme Court’s decision in *Markman* declaring that claim construction is a matter for judge, not juries. Indeed, in *Markman*, the Supreme Court relied explicitly on U.K. precedent in deciding that patent claim construction is a matter for a judge rather than a jury. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 381-82 (1996); Adams & Thomas, *supra* note 68, at 15 (stating that Patents Court trials are “by judge alone”), 31 (stating that trials before the PCC are normally before the judge sitting alone, although technical assistance is available when needed); Paul R. Michel, *A View From The Bench: Achieving Efficiency and Consistency*, 19 Temp. Envtl. L. & Tech. J. 41, 46 (2000-2001) (The Honorable Paul R. Michel, Circuit Judge, United States Court of Appeals for the Federal Circuit, in critiquing the U.S. practice of making jury trials available in patent cases, stated that “[e]ven England stopped having jury trials in patent cases at the beginning of the last century.”).

<sup>83</sup> See U.S. Const. art. III, § 1 (providing that Article III judges “shall hold their Offices during good Behaviour,” which has been interpreted to mean that judges may serve for the remainder of their lives); E-mail from The Honorable Mr. Justice David Kitchin, Senior Judge of the Patents Court of the High Court of Justice in England and Wales, to author (Nov. 5, 2008, 03:41 E.S.T.)



England review de novo the trial court's construction of the claims.<sup>84</sup> Finally, in both jurisdictions, claim construction is often determinative of the litigation's outcome.<sup>85</sup>

The most striking difference between the U.S. and English patent regimes is the specialized patent trial court system established in the latter jurisdiction. Significantly, some of the judges in the English system possess a technical degree, and "all have technical experience."<sup>86</sup> Thus, an examination of the rate of appellate reversal of patent

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(on file with author). English judges, however, face a mandatory retirement age of seventy years. *Id.*

<sup>84</sup> See *supra* note 50 and accompanying text regarding the Federal Circuit's decision in *Cybor* that claim construction is a question of law to be reviewed de novo by the appellate court. Similarly, in England, "[t]he Court of Appeal is there to decide if the first instance Judge has erred as a matter of law in any decision that has been reached." E-mail from Doug Bell, Clerk of the Lists, Her Majesty's Court Service, to author (Nov. 5, 2007, 04:54 E.S.T.) (on file with author). As explained in a significant English Court of Appeal decision:

The review [of a lower court decision] will engage the merits of the appeal. It will accord appropriate respect to the decision of the lower court. Appropriate respect will be tempered by the nature of the lower court and its decision making process. There will also be a spectrum of appropriate respect depending on the nature of the decision of the lower court which is challenged. At one end of the spectrum will be the decisions of primary fact reached after an evaluation of oral evidence where credibility is in issue and purely discretionary decisions. Further along the spectrum will be multi-factorial decisions often dependent on inferences and an analysis of documentary material.

*E.I. Dupont de Nemours & Co. v. S. T. Dupont*, [2006] 1 W.L.R. 2793, 2800 (C.A. (Civ. Div.)). *Cf. Markman II*, 517 U.S. at 389 (stating that, with respect to expert testimony presented in claim construction hearings, while credibility determinations theoretically could play a role in claim construction, the chance of such an occurrence is "doubtful" and that "any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document, required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole").

<sup>85</sup> See *supra* notes 22-27 and accompanying text for information regarding the importance of claim construction in U.S. patent litigation; see also *Molnlycke AB v. Procter & Gamble Ltd.*, [1994] R.P.C. 49, 76 (C.A. (Civ. Div.)) ("As is often the case the issue [of infringement] is largely determined by deciding the proper construction of the patent.").

<sup>86</sup> E-mail from Elaine Harbert, Senior Personal Secretary to The Chancellor of The High Court, The Right Honorable Sir Andrew Morritt, Royal Courts of Justice, to author (Feb. 28, 2008, 04:43 E.S.T.) (on file with author); see also WIPO, *supra* note 68, at 1 ("In the Patents Court there are a number of full-time assigned judges who have a technical background, the court therefore has extensive experience of patent law and the ability to deal with complicated technologies. Additionally, scientific advisers can be appointed to the court to assist the judge."); Perkins & Mills, *supra* note 70, at 564 (explaining that the English Patents Court and Patents County Court "have judges who have considerable experience in dealing with patent disputes and are experienced patent practitioners"); Her Majesty's Courts Service, The Patents Court, [http://www.hmccourts-service.gov.uk/infoabout/patents/crt\\_guide.htm](http://www.hmccourts-service.gov.uk/infoabout/patents/crt_guide.htm) (last visited May 2, 2009).;

claim construction decisions by the specialized trial judges of the English Patents Court and Patents County Court is an instructive statistic in any consideration of H.R. 628. If England does indeed have a lower appellate reversal rate of claim construction decisions, this suggests that legislation aimed at enhancing the patent expertise of a group of U.S. district court judges has the potential to reduce the rate at which the Federal Circuit reverses district court claim construction decisions.

H.R. 628 might also decrease the cost of U.S. patent litigation. A 2005 survey revealed that, in the United States, the costs of taking a patent litigation through the discovery phase ranged from \$350,000 to \$3,000,000, and the costs of taking a patent case through appeal ranged from \$650,000 to \$4,500,000.<sup>87</sup> By contrast, in England, which is the most expensive country in Europe for patent litigation, the costs during the same time period ranged from approximately £200,000 (approximately US \$370,000) to £1,500,000 (approximately US \$2,775,000).<sup>88</sup>

The higher cost of patent litigation in the United States as compared to England arises at least in part from the unpredictability of patent litigation in the former nation (as manifested by the high appellate reversal rate of claim construction decisions). This unpredictability makes it difficult for parties to make realistic assessments of their likelihood of ultimate success when they proceed through costly discovery, pretrial proceedings, and trial. In addition, because the average district court judge hears so few patent cases annually,<sup>89</sup> it falls to the parties to inform the judge about changes in patent law as well as to educate her with respect to the technology at issue in any given case,<sup>90</sup>

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As for the PCC, Judge Fysh, the current judge of that court, has explained there is a single PCC judge, and that person is required to be “scientifically qualified.” Fysh, *supra* note 72, at 2. Judge Fysh describes himself as an “ex-chemist.” *Id.* His predecessor, Judge Peter Ford, was a patent attorney for over twenty-five years and then served as the first British member of the Boards of Appeal of the European Patent Office for about a decade before he became the first Patents County Court judge. Andrew Webb, *Patent Litigation in the UK – The New Patents County Court*, 1991 Eur. Intell. Prop. Rev. 203, 205.

There are also judges with patent experience serving on the non-specialized English Court of Appeal. *See* Price, *supra* note 81, at 290 (mentioning Judge Jacob, formerly of the Patents Court and now of the Court of Appeal, and Judge Aldous); Her Majesty’s Courts Service, The Court of Appeal, <http://www.hmcourts-service.gov.uk/cms/1287.htm> (last visited May 2, 2009).

<sup>87</sup> Salvatore Anastasi & Kevin Alan Wolff, Am. Intellectual Prop. Law Ass’n, Report of the Economic Survey 2005, at I-108 - I-110 (2005).

<sup>88</sup> Ray Black, *Never Mind the Quality, Feel the Pinch*, Managing Intell. Prop., May 1, 2005, at 27.

<sup>89</sup> *See supra* notes 39-40 and accompanying text.

<sup>90</sup> *See* John B. Pegram, *Should the U.S. Court of International Trade Be Given Patent Jurisdiction Concurrent with That of the District Courts?*, 32 Hous. L. Rev. 67, 76 (1995) (describing the average trial court judge’s lack of experience in substantive and procedural matters relating to patent litigation).

which may include paying for experts to advise the judge.<sup>91</sup> Naturally, some of the cost of U.S. patent litigation is attributable to the longer and more complex discovery process in the United States.<sup>92</sup> However, even this is exacerbated by the uncertainty arising from the high appellate claim construction reversal rate. In the United States, pretrial discovery, motion practice, and trial all occur before the party who lost the claim construction determination can appeal this issue to the Federal Circuit. As Judge Holderman noted, “Should the Federal Circuit on appeal determine that the district judge’s claim construction was erroneous, all the money and time spent litigating the case in the district court following that erroneous claim construction by the district court is thus a wasted expense.”<sup>93</sup> Thus, improving claim construction at the trial level can provide needed certainty to the patent litigation process, and it is worthwhile to examine how England has achieved this goal with specialized patent trial courts.

#### IV. EMPIRICAL ANALYSIS OF THE ENGLISH APPELLATE REVERSAL RATE OF TRIAL COURT PATENT CLAIM CONSTRUCTION DECISIONS

This empirical portion of this Article examines the appellate reversal rate of claim construction decisions of the specialized English patent courts, including the Patents Court, Chancery Division, and the Patents County Court, with the aim of assessing the potential effectiveness of H.R. 628. The English appellate reversal rate, which ranges from 14.7 to 28.2 percent, depending upon how it is measured, is less than that of the Federal Circuit. These statistics thus provide some empirical evidence that specialist judges do indeed have the potential to reduce the appellate claim construction reversal rate in the United States. As noted previously, English and U.S. approaches to patent litigation are quite similar, and differ mainly in terms of the patent expertise of the trial judges deciding patent actions.<sup>94</sup>

##### *A. Empirical Research Methodology and Analysis*

In formulating my research methodology, I am greatly indebted to the work of Professor Kimberly A. Moore, now a Federal Circuit judge; this Article builds upon her

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<sup>91</sup> See *supra* notes 63-65 and accompanying text.

<sup>92</sup> See *supra* note 81 and accompanying text.

<sup>93</sup> Holderman, *supra* note 35, at 10; see also Moore, *Are District Court Judges Equipped*, *supra* note 5, at 2-3 (“In the absence of a route for expedited appeal of claim construction, district courts are forced to proceed with lengthy and expensive patent litigation based on their frequently erroneous claim construction.”).

<sup>94</sup> See *supra* notes 77-85 and accompanying text.

scholarly research.<sup>95</sup> I created a database containing all appellate claim construction decisions in England from 1996 through 2007, examining decisions of both the Court of Appeal and the House of Lords.<sup>96</sup> For each appellate case, the information gathered included: the parties; judges; court; decision date; whether the appeal(s) were granted, dismissed, or granted in part and dismissed in part; the number of constructions of individual patent claim terms reversed on appeal; and whether any decision by the appellate court to grant an appeal resulted from the appellate court's reversal of a lower court's claim construction decision. I then examined each related trial court case, gathering information that included: the parties; judge; court; decision date; prevailing party; and the number of individual patent claim terms construed. The total number of appellate court decisions included in the database was 58, and the total number of individual claim terms construed was 153.

Using this data from English claim construction cases, I was able to calculate English appellate court claim construction reversal rates and compare them with the most recent and reliable U.S. figures,<sup>97</sup> which come from Professor Moore's 2005 article analyzing all Federal Circuit claim construction decisions from 1996 through 2003.<sup>98</sup> In order to render my results comparable to Judge Moore's, I calculated the appellate reversal rate for the period 1996 through 2003. In addition, in order to render my research as current as possible, I also analyzed the data from the period 1996 through 2007.

In calculating the appellate court claim construction reversal rate, I computed it in three different ways, as did Judge Moore in her 2005 study.<sup>99</sup> In that article, Judge Moore explained that "reversal rate" can be interpreted in one of three ways. First, it may refer to the rate at which the appellate court determined that the trial court erred in the construction of individual terms in a patent claim, on a term-by-term basis, even if the appellate court did not actually reverse the lower court's overall judgment. We could represent this ratio as  $T_R/T$ , where  $T_R$  equals the total number of claim terms reversed at the appellate level and  $T$  equals the total number of claim terms construed at the appellate level. Second, the reversal rate could mean the percentage of cases in which the appellate court reversed the trial court's construction of one or more claim terms. We could

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<sup>95</sup> See generally Moore, Markman, *supra* note 5; Moore, Are District Court Judges Equipped, *supra* note 5.

<sup>96</sup> In order to create this data set, I conducted a search on Westlaw in the file entitled *United Kingdom Reports All*, using the query "patent & claim /s interp! or constru!" Professor Moore formulated this search for her seminal 2001 article concerning the Federal Circuit's claim construction reversal rate. See Moore, *Are District Court Judges Equipped*, *supra* note 5, at 8 n.36; see also Moore, Markman, *supra* note 5, at 239 n.31 (updating her research using the same search terms). I then examined each case to verify that it did indeed concern construction of a patent claim.

<sup>97</sup> See Moore, Markman, *supra* note 5, at 234-38 (as to the reliability of the cited statistics).

<sup>98</sup> See *id.* at 239.

<sup>99</sup> See *id.* at 238.

represent this ratio as  $R_1/A$ , where  $R_1$  equals the total number of appellate cases where one or more claim terms was reversed and  $A$  equals the total number of appellate cases concerning patent claim construction. Third, the reversal rate could mean the percentage of cases in which a claim construction error actually resulted in reversal of the trial court judgment. We could represent this ratio as  $R_R/A$ , where  $R_R$  equals the total number of appellate cases where the reversal of a single claim term resulted in a reversal of the trial court's decision and  $A$  again equals the total number of appellate cases concerning patent claim construction. In her 2005 study, Professor Moore calculated these respective reversal rates as 34.5 percent, 37.5 percent, and 29.7 percent.<sup>100</sup> For the years 1996 through 2003, the same period that Professor Moore studied, my findings revealed English appellate claim construction reversal rates of 14.7 percent, 28.2 percent, and 25.6 percent respectively.<sup>101</sup> The total number of appellate court decisions included in this dataset was 39 and the total number of individual claim terms construed was 95.

**Table 1**

Ratio	U.S. 1996-2003 (Moore)	England 1996-2003 (Gitter)	England 1996-2007 (Gitter)
$T_R/T$	34.5	14.7	15.7
$R_1/A$	37.5	28.2	27.6
$R_R/A$	29.7	25.6	25.9

The 95 percent confidence interval of the claim construction reversal rate was then calculated for  $T_R/T$ , where  $T_R$  equals the total number of claim terms reversed at the appellate level and  $T$  equals the total number of claim terms construed at the appellate

<sup>100</sup> Moore, *Markman*, *supra* note 5, at 238.

<sup>101</sup> It should be noted that Judge Peter Ford, who served during the first decade of the PCC, from 1990 to 2000, was considered to have a rather high reversal rate. Michael Burdon, *UK Patents County Court – Phoenix Risen?*, Patent World, July/Aug. 2003, at 2, available at [www.olswang.com/pdfs/phoenix\\_risen.pdf](http://www.olswang.com/pdfs/phoenix_risen.pdf). Some attributed this to his experience in the European system, which is less adversarial. *New Judge for Patents Court*, The Law., Oct. 22, 2001, at 7. Certainly, lack of technical expertise was not the issue, as Judge Ford spent over three decades as a member of the patent bar and judiciary. Alan Burrington, *The UK Patents County Court – Is It Still Working?*, Patent World, Dec. 1991/Jan. 1992. Thus, the claim construction reversal rate in England is likely somewhat lower at present than the figures cited in this Article because the data compiled for use in this Article includes pre-2000 decisions by Judge Ford.

level.<sup>102</sup> A confidence interval of 95 percent means that in repeated confidence statements about the reversal rate, based on repeated samples and computed at the given level of 95 percent for 95 out of 100 such statements, the unknown true reversal rate will actually reside within the data-based interval.

To calculate the confidence interval, one divides the total number of claim terms reversed in all cases from 1996 through 2007, here 24, by the total number of claim terms construed during that period, here 153. This gives the proportion of claim terms reversed as 15.7 percent (0.157). The standard deviation of the observed reversal rate is 4.1 percent (0.041). This confidence interval is based upon all the English data from 1996 through 2007 and is computed using a standard deviation for estimating proportions from a clustered sample with clusters of unequal size.

Note that the term data under discussion consist of clusters of terms. All terms associated with a particular case form a cluster of potentially statistically interdependent terms. Since these clusters vary in size, a ratio estimate was used for computing the reversal rate, according to the formula<sup>103</sup>

$$p = \sum_i a_i / \sum_i M_i$$

where  $a_i$  denotes the number of reversals in case  $i$  that had a total of  $M_i$  terms. The summation extends over all  $n$  cases in the data. We consider the cases as sampled from a population of cases from all possible years of interest.

The standard deviation of the reversal rate per term was computed using the ratio-estimation variance formula

$$V(p) = (1-f) / \sum_i M_i^2 (p_i - p)^2 / (\sum_i M_i)^2$$

where

$f$  = fraction of cases (clusters) included in the sample

$M$  = average number of terms per case

$n$  = number of cases in the sample data

$p_i = a_i/M_i$

The summation extends over all cases in the data, as we used the data to estimate quantities needed in Cochran's original formula (9.32). The desired standard deviation is the square root of this variance. In using the formula, we took the sampling fraction  $f$  to be zero, thereby inflating the standard deviation of our estimate, and obtaining the least

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<sup>102</sup> The author is deeply indebted to Professor Shulamith Gross, Professor of Statistics and Computer Information Systems and Director, Statistical Consulting Laboratory, Baruch College, City University of New York, for the statistical analysis presented herein.

<sup>103</sup> See William G. Cochran, *Sampling Techniques* 247 (3d ed. 1977).

desirable or longest possible confidence interval.<sup>104</sup> The latter interval is obtained as the estimate plus or minus twice the standard deviation.

Thus, one can say with 95 percent confidence that in any given year appellate courts in England reverse between 11.6 percent and 19.8 percent of the claim terms they construe. This is substantially lower than Professor Moore's corresponding U.S. claim construction reversal rate of 34.5 percent. Because Professor Moore does not compute a confidence interval for her data, it is not possible at this time to achieve a more statistically accurate comparison of U.S. and English appellate claim construction reversal rates based on her data.<sup>105</sup>

Nevertheless, the data gathered for this Article support the contention that, from 1996 through 2003, a significantly lower percentage of claim terms were reversed in England upon appeal (14.7 percent), with over twice as many claim terms being reversed in the United States (34.5 percent). Interestingly, in England these reversals of the trial court's constructions of individual terms affected a relatively larger percentage of the appealed cases, so that in 28.2 percent of English cases the appellate court reversed the trial court's construction of one or more claim terms. However, the English figure of 28.2 percent is still considerably lower than the U.S. figure of 37.5 percent. The most similar reversal rate percentage in the United States and England is the one relating to the percentage of cases in which the lower court's claim construction error actually resulted in reversal of the trial court judgment. This figure was 25.6 percent in England and 29.7 percent in the United States. These percentages speak less to the competency of the respective court systems, however, and more to the fact that claim construction is truly outcome-determinative.<sup>106</sup> Updating the English data through 2007 revealed similar results. The appellate claim construction reversal rates in England for the period 1996 through 2007 were 15.7 percent, 27.6 percent, and 25.9 percent, according to Moore's three methods of calculation.

One question that arises from data demonstrating a higher appellate claim construction reversal rate in the United States as compared to England is whether the United States Court of Appeals for the Federal Circuit, as a specialized tribunal with exclusive jurisdiction over patent cases,<sup>107</sup> has greater patent expertise than the generalist English Court of Appeal, thereby allowing the former court to better detect and reverse trial court claim construction errors. This hypothesis itself posits that specialized courts render superior claim construction decisions.<sup>108</sup> If this is so, then it is noteworthy that

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<sup>104</sup> *Id.* at formula 9.32.

<sup>105</sup> As noted above, however, the U.S. appellate claim construction reversal rate Professor Moore calculated is comparable to the rate other scholars have computed. *See supra* note 5 and accompanying text.

<sup>106</sup> *See supra* notes 26-27 and accompanying text.

<sup>107</sup> *See supra* notes 41-42 and accompanying text (describing the jurisdiction of the Federal Circuit).

<sup>108</sup> *Cf. Moore, Are District Court Judges Equipped*, *supra* note 5, at 24 (stating that, in the United States, "the frequency with which the Federal Circuit judges are construing claims

English patent court judges possess more technical experience than Federal Circuit judges, few of whom actually have scientific backgrounds.<sup>109</sup> In addition, a theory which suggests that the English Court of Appeal somehow overlooks the erroneous patent claim construction decisions of the patent trial court is unlikely in light of the fact that the English patent court system is highly regarded internationally, as well as by the members of the patent bar that practice before it.<sup>110</sup>

Alternatively, the lower appellate reversal rate of claim construction decisions in England might suggest that the English patent trial courts are more interested in and/or adept than the U.S. trial courts at anticipating how the appellate court will decide claim construction matters, and thus decide in accordance with the appellate court. A hypothesis about the tendency of English patent court judges to decide matters in a way that would avoid reversal is quite difficult to test empirically. If this is indeed the case, such congruent decision-making does not necessarily establish that the trial court decisions are incorrect, and is entirely consistent with the notion that specialized English patent courts render superior claim construction decisions than U.S. trial courts.

One could also hypothesize that the lower appellate reversal rate in England results from a tendency of the English appellate court to accord deference to the specialized patent trials court, although it has the equivalent of de novo review of trial court claim construction questions.<sup>111</sup> This would be in contrast to the specialized Federal Circuit, which conducts true de novo review of federal district court claim construction decisions. The careful analysis of the claim construction decisions of the English appellate court conducted for this Article, however, revealed a very thoroughly reasoned review process by the appellate judiciary of patent trial claim construction decisions, and did not suggest a lenient review process.

Another question that arises is whether the civil appellate reversal rate for all English cases is lower than that in the United States. The converse is true, in fact. In the United States, as noted above, the average reversal rate was less than 9 percent for all district court decisions appealed to the regional courts of appeals during the twelve-

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suggests that these judges are developing expertise at the task that will increase their ability to perform it accurately”).

<sup>109</sup> See *supra* notes 45 and 86 and accompanying text.

<sup>110</sup> See, e.g., Price, *supra* note 81, at 290 (stating that “the English Civil Courts have a worldwide reputation for high-quality decision-making” and that the PCC has become so popular that it has attracted multinationals among its litigants); Joanne Harris & Ben Moshinsky, *Judges Survey: Judgment Day*, The Lawyer.com, Oct. 9, 2006, <http://www.thelawyer.com/cgi-bin/item.cgi?id=122303&d=122&h=24&f=46> [hereinafter *Judgment Day*] (quoting a member of the patent bar as stating that the patent litigation process is considered to be working well and noting that trial times have been greatly reduced due to procedural reforms).

<sup>111</sup> See *supra* note 84 and accompanying text.



month period ending March 31, 2007.<sup>112</sup> In England, the percentage of trial court decisions the Court of Appeal reversed for the year 2007 was 41.9 percent.<sup>113</sup>

Furthermore, it is instructive to observe that, within England itself, the appellate reversal rate for all patent cases (whether relating to claim construction, validity, infringement, or some other issue), was only 19 percent in 2007, lower than that for nearly every other type of civil action in England.<sup>114</sup> Thus, within England itself, the appellate reversal rate of patent court claim construction decisions, whether 14.7, 28.2, or 25.6 percent, is lower than the appellate reversal rate of most every other category of trial court decision. Indeed, two Patents Court judges, Justices Mann and Kitchin, are considered among the best judges in England, with a record of one hundred percent of judgments upheld in the Court of Appeal during the 2005-2006 court year.<sup>115</sup> The foregoing comparison of appellate reversal rates of trial court decisions suggests that the specialization of the English patent courts is indeed permitting such courts to perform better than generalist English courts, thereby supporting the notion that such a result might be replicated in the United States if H.R. 628 were enacted.

It is important, however, to keep in mind some differences in the U.S. and English patent litigation systems that might account at least in part for the lower appellate reversal rate of trial court claim construction decisions in England. First, throughout England, the loser pays the litigation fees and expenses of the winner.<sup>116</sup> Second, in England, unlike in the United States, juries do not hear patent cases.<sup>117</sup> Both of these factors render it likely that parties in England are more disposed to settle weak cases than their counterparts in the United States. The higher English settlement rate could possibly affect the appellate reversal rate of trial court claim construction decisions, since English patent trial judges might enjoy a relatively small docket as compared to their U.S. peers, thereby allowing them to spend more time on each case and consequently reach more sound outcomes.<sup>118</sup>

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<sup>112</sup> See *supra* note 62 and accompanying text.

<sup>113</sup> See Ministry of Justice, Judicial and Court Statistics 2007, at 24 tbl.1.8 (2008), <http://www.official-documents.gov.uk/document/cm74/7467/7467.pdf>; see also *Judgment Day*, *supra* note 110 (stating that, during the year preceding the Article's publication, the average English High Court judge in the chancery and commercial courts had approximately thirty-seven percent of judgments reversed by the Court of Appeal).

<sup>114</sup> Ministry of Justice, Judicial and Court Statistics 2007, at 24 tbl.1.8 (2008), <http://www.official-documents.gov.uk/document/cm74/7467/7467.pdf> (demonstrating that among the eighteen categories of courts from which appeals can be taken to the English Court of Appeal (Civil Division), only the Family Division had a lower appellate reversal rate than the Patent Court).

<sup>115</sup> See *Judgment Day*, *supra* note 110.

<sup>116</sup> See Herbert M. Kritzer, "Loser Pays" Doesn't, *Legal Aff.*, Nov.-Dec. 2005, at 24.

<sup>117</sup> See *supra* note 82.

<sup>118</sup> An English Patents Court judge hears and decides approximately five to seven patent trials and appeals from Patent Office decisions annually, along with numerous motions of other kinds in patent cases. Email from David Kitchin, Senior Judge, the Patents Court of the High Court of

However, the effect of the smaller English docket might be somewhat offset by the fact that, since it is likely that weaker cases tend to settle in England, the courts typically hear only the more challenging cases. If that is so, then one would expect that the English patent trial courts, which are left with harder cases, to have a higher appellate claim construction reversal rate than the U.S. patent trial courts, which face a larger number of weaker cases that are therefore easier to decide. Yet in fact, the English appellate reversal rate of claim construction decisions is lower, as demonstrated herein.

The English patent system also differs from the U.S. system in that business methods and software are not as easily patentable in the former jurisdiction. One recent study by Professor Schwartz posits that such patents have a higher appellate claim construction reversal rate, as compared to biotech, pharmaceutical, and chemical patents, because there is no common scientific vocabulary in the fields of business methods and software patents, thereby rendering such patents more indeterminate.<sup>119</sup> Thus, the lower appellate claim construction reversal rate in England could possibly be attributed to the fact that business methods and software are harder to patent than in the U.S. Professor Schwartz also points out, however, that during the period from 1996 to 2007, relatively few appellate claim construction appeals involved business method or software patents.<sup>120</sup>

It should be noted that the data presented in this article include only those trial court claim construction decisions that were reviewed on appeal. This parallels the approach used by Professor Moore, who excluded all trial court claim constructions that were not appealed, either because the parties settled after the *Markman* hearing or because they simply chose not to appeal.<sup>121</sup> Professor Moore acknowledged that this approach may have made the appellate reversal rate seem higher than it actually is, since it excludes all the trial court decisions that were not appealed, and thus presumably were

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Justice in England and Wales, to author (Oct. 24, 2008, 10:01 AM E.S.T.) (on file with author). By contrast, a typical U.S. District Court judge serving in one of the jurisdictions with the most patent litigation hears roughly between eight and twenty-eight cases annually involving different subject matters. See Statistics Div., Office of Judges Programs, Admin. Office of the U.S. Courts, 2007 Annual Report of the Director: Judicial Business of the United States Courts (2008), available at <http://www.uscourts.gov/judbus2007/JudicialBusinesspdfversion.pdf> (using Table C-7, U.S. District Courts—Civil and Criminal Trials Completed by District, During the 12-Month Period Ending September 30, 2007, and Table X-1A, which sets forth the number of authorized judgeships per judicial district, to calculate the number of trials per district court judge).

<sup>119</sup> See David L. Schwartz, *Confusing Construction or Constructing Confusion? An Empirical Study of Patent Claim Construction Reversal Rates Across Technologies*, 2009 Intellectual Property Roundtable at Drake Law School (Feb. 28, 2009), at 8, 11; see also *supra* note 50 (regarding the inherently indeterminate nature of patent language).

<sup>120</sup> E-mail from David L. Schwartz, Assistant Professor of Law, The John Marshall Law School, to author (Mar. 9, 2009, 9:17 PM E.S.T.) (on file with author) (estimating that business method and software patents accounted for less than ten percent of the 1354 patents studied).

<sup>121</sup> See Moore, *Are District Court Judges Equipped*, *supra* note 5, at 9 (acknowledging this limitation in her data); Moore, *Markman*, *supra* note 5, at 239 (explaining that this 2005 article updates and expands her earlier empirical project, which excluded data relating to claims construction cases that were not reviewed on appeal).

correctly decided.<sup>122</sup> On the other hand, she hypothesizes that perhaps “the cases that are appealed are most likely the close cases in which the parties are more likely to disagree on the predicted outcome,” meaning that the outlier cases where the judge clearly erred in construing the claim will likely settle to avoid transaction costs.<sup>123</sup> According to this theory, the unappealed claim construction decisions are unlikely to substantially change the results of her empirical research.<sup>124</sup> Ultimately, Professor Moore concludes that, while “appealed claim construction decisions may not be a random sample of all claim construction disputes,” her empirical results still shed light on the decision-making ability of district court judges.<sup>125</sup> Not only Professor Moore, but also many other scholars researching the Federal Circuit reversal rate of trial court claim construction decisions, limited their studies to appealed cases.<sup>126</sup> It is likely that they did so because the only way to truly assess if a patent claim was correctly construed, in the eyes of the Federal Circuit, is if the trial court’s claim construction has been reviewed upon appeal. This Article follows a similar approach.

### *B. Conclusions Drawn With Respect to H.R. 628 Based upon the Empirical Data*

The lower English appellate reversal rate of claim construction decisions suggests that a specialist court can indeed serve to reduce the reversal rate.<sup>127</sup> The next question that arises is what sort of experience the judges on the specialist court must have in order

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<sup>122</sup> See Moore, *Are District Court Judges Equipped*, *supra* note 5, at 9-10.

<sup>123</sup> See *id.* at 10 (citations omitted).

<sup>124</sup> See *id.*

<sup>125</sup> See *id.*

<sup>126</sup> See *supra* note 5.

<sup>127</sup> According to one empirical study conducted by Professor Schwartz, United States district court judges do not actually improve their skills at patent claim construction as a function of experience, which includes having their decisions reviewed by the Court of Appeals for the Federal Circuit. See generally David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 Mich. L. Rev. 223 (2008). This could suggest that “funneling patent cases via the Patent Pilot Program to a smaller subset of judges on its own is unlikely to reduce the reversal rate.” *Id.* at 262. As Professor Schwartz acknowledges, however, it is possible that district court judges may need a greater number of claim construction appeals, rather than the two or three they decide on average in an over ten-year period, in order to gain the experience necessary to improve their claim construction reversal rates. What is more, as Professor Schwartz points out, H.R. 628 might also decrease the appellate claim construction reversal rate in the United States by allowing judges with the most interest in patent cases to handle such cases; by funding the appointment of law clerks with technical experience; and by enabling certain designated patent judges to develop a reputation for sound decision-making that would potentially allow the Federal Circuit to accord deference to these highly respected district court judges. *Id.* at 262 nn.19 & 263.

to make accurate claim construction decisions; for example, technical education or prior experience with patent law may be required. This issue is important in light of the fact that H.R. 628 proposes to designate certain judges as patent judges and permit them to decide a greater proportion of patent matters, but does not require that such judges have technical training.

It would seem that, even more important than technical training, is the fact that English patent judges hear numerous patent cases and in this way enhance their expertise. In the United States, it appears that technical education and prior patent expertise are uncorrelated with claim construction reversal rates, based upon scholarly research demonstrating that the rate at which a Federal Circuit judge reverses district court claim construction decisions is entirely unrelated to the district judge's technical education and prior patent expertise.<sup>128</sup>

In England, presently just three of the seven Patents Court judges have "specialist IP backgrounds."<sup>129</sup> According to one spokesperson for the English High Court, of which the Patents Court is a part:

All the judges bring their varying amounts of technical experience from their respective practices, and they all acquire further experience in the course of their Patent Court work. The English practice of concentrating patent work in the hands of a limited number of judges in the Patents Court, rather than spreading the work more generally, has the further effect of increasing the exposure of that limited number to technical issues and focussing the combined experience accordingly.<sup>130</sup>

Indeed, because H.R. 628 allows judges to self-select into the pool of judges handling patent cases,<sup>131</sup> it is likely that judges who are designated patent specialists will have the interest and aptitude to handle such cases well. In addition, the judges' inherent intellectual interest will be further enhanced by H.R. 628's funding for educational programs aimed at developing their technical expertise.<sup>132</sup> H.R. 628 will also provide

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<sup>128</sup> See Moore, *Are District Court Judges Equipped*, *supra* note 5, at 26-27 (defining prior patent experience as expertise gained as a member of the patent bar or as an academic).

<sup>129</sup> See E-mail from The Honorable Mr. Justice David Kitchin, Senior Judge of the Patents Court of the High Court of Justice in England and Wales, to author (Nov. 19, 2008, 3:37 AM E.S.T.) (on file with author).

<sup>130</sup> E-mail from Elaine Harbert, Senior Personal Secretary to The Chancellor of The High Court, The Right Honorable Sir Andrew Morritt, Royal Courts of Justice, to author (Mar. 3, 2008, 9:17 AM E.S.T.) (on file with author).

<sup>131</sup> See H.R. 628, 111th Cong. (2009); Olson, *supra* note 12, at 755.

<sup>132</sup> See H.R. 628, 111th Cong. (2009); see also *supra* note 15 and accompanying text.

funds for hiring clerks with scientific and technical educational credentials, an advantage currently enjoyed by Federal Circuit judges, most of whom are not patent experts.<sup>133</sup>

#### V. THE ADVANTAGES OF H.R. 628 OVER THE IMPLEMENTATION OF A SPECIALIZED PATENT COURT

In light of the apparent advantages of the English specialized patent courts, it is important to ask why H.R. 628 proposes a system of funneling patent cases to certain generalist judges, rather than a system establishing specialized courts modeled upon those in England. Traditionally, the weight of scholarly and judicial opinion has opposed increased specialization in the U.S. federal courts.<sup>134</sup> Commentators raise several concerns about such courts. First, specialized courts are vulnerable to capture by a particular constituency, and there is the possibility that patent courts would favor certain ideological positions.<sup>135</sup> Second, establishing a single patent trial court would eliminate the “percolation” that occurs when numerous trial courts grapple with similar legal issues and converge on the optimal legal rules.<sup>136</sup> Because the United States already has a

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<sup>133</sup> See *supra* notes 46-49 and accompanying text.

<sup>134</sup> See, e.g., Lawrence Baum, *Specializing the Federal Courts: Neutral Reforms or Efforts to Shape Judicial Policy?*, 74 *Judicature* 217, 224 (1991) (contending that judicial specialization may unintentionally affect judicial decision making and advocating careful review of proposals for specialized courts); Simon Rifkind, *A Special Court for Patent Litigation? The Danger of a Specialized Judiciary*, 37 *A.B.A. J.* 425, 425-26 (1951) (arguing against the creation of specialized patent courts); *Transcript: Franklin Pierce Law Center Second Patent System Major Problems Conference, Thursday March 23, 1989*, 30 *IDEA* 107, 212-14 (1989) (quoting Chief Judge Markey, the first judge of the Federal Circuit, who opposes the establishment of specialized patent trial courts, even as he had supported the establishment of the Federal Circuit)..

<sup>135</sup> Pegram, *U.S. Court of International Trade*, *supra* note 90, at 125-26; see also *Improving Federal Court Adjudication of Patent Cases*, Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Property of the U.S. H.R. Judiciary Comm., 109th Cong. 1 (2005) [hereinafter *Moore Testimony*] (statement of Professor Kimberly A. Moore) (proposing the designation of patent judges, ideally with a technical education or patent background, in each judicial district); Goldstein, *supra* note 66, at 4 (“Another criticism is that specialized courts may be particularly susceptible to special interest group manipulation. A specialized judiciary may become susceptible to political lobbying, a stratified bar, or special interest group manipulation that would ensure the appointment of favorable judges to the specialized courts.”).

Even under the system H.R. 628 proposes, the possibility exists that ideological generalist federal judges will elect to hear patent cases so as to influence the law in that area.

<sup>136</sup> See *Moore Testimony*, *supra* note 135 (“[H]aving 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.”); Pegram, *U.S. Court of International Trade*, *supra* note

specialized appellate court that resolves all patent cases, there is concern that the creation of a single specialized patent trial court would result in “too much specialization.”<sup>137</sup> Third, as a related matter, confining decision-making to a limited number of specialized courts will impede the flow of new ideas from areas of law other than intellectual property, and could result in a myopic focus.<sup>138</sup> The proposal offered by H.R. 628 avoids these concerns and would be one step toward improving the appellate claim construction reversal rate and enhancing judicial efficiency in patent cases, which are important goals.

Commentators have, however, voiced concerns about H.R. 628. First, some contend that H.R. 628 will foster forum-shopping by encouraging litigants to file patent cases in those districts that have specialist judges.<sup>139</sup> One commentator contends that once there is enough information to determine how the designated judges decide claim construction issues (for example, whether a particular judge narrowly or expansively construes claims), it is likely that patent litigants will select particular districts with this information in mind.<sup>140</sup> The drafters of H.R. 628 have modified the legislation to include a safeguard that will minimize forum shopping, specifying that the pilot program can exist only if a court has at least ten district judges and at least three of the judges have requested to hear such cases.<sup>141</sup> What is more, in the opinion of Judge Holderman, forum shopping based on a court’s expertise is not deleterious, in contrast to forum shopping intended to secure an individual litigant a preferred outcome.<sup>142</sup>

Another concern about forum shopping that arises in connection with H.R. 628 is the speculation that certain smaller judicial districts that are not eligible to participate in the pilot program, but which have become desirable patent litigation venues due to their development of effective local patent rules that enhance efficiency, such as the Eastern District of Texas, may not hear as many cases if Congress enacts H.R. 628. Judge

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90, at 123 (speaking of the “[p]ercolation of ideas in patent law” that arises “through attention to patent issues in a number of trial courts”).

<sup>137</sup> See Moore Testimony, *supra* note 135, at 10.

<sup>138</sup> See Goldstein, *supra* note 66, at 4; Pegram, *U.S. Court of International Trade*, *supra* note 90, at 123-25.

<sup>139</sup> See Lynn Malinoski, *Why Does Congress Care Where Patent Cases Are Filed?*, The Legal Intelligencer, Oct. 18, 2006, at 5, available at <http://www.woodcock.com/publications/newsletters/intellectual%20property%20perspectives%20ofall%202006%20newsletter.pdf>.

<sup>140</sup> See *id.*

<sup>141</sup> H.R. 628, 111th Cong. §1(b) (2009); see also *supra* note 14. This provision was not included in the original version of the bill. Malinowski, *supra* note 139, at 3.

<sup>142</sup> See Holderman, *supra* note 35, at 120 (“While I believe that forum shopping generally should be discouraged, in this instance, where the choice of forum is based on a district’s development of an expertise in the complicated area of patent law, the federal judicial system of our country will not be harmed by encouraging this type of forum selection.”).

Holderman has expressed his belief that this result is unlikely, given that some litigants will continue to seek out the predictability afforded by these local patent rules.<sup>143</sup>

## VI. CONCLUSION

The empirical analysis presented in this article supports the notion that a current Congressional bill, H.R. 628, which proposes to enhance the patent expertise of certain federal district court judges by allowing them to elect to hear more patent cases, offers the potential to reduce the relatively high appellate reversal rate of patent claim construction decisions in the United States. The examination of English data sheds light on this issue, since the English and U.S. patent litigation processes are quite similar, differing primarily in that the former nation has specialized patent trial courts while the latter does not. Based upon the considerably lower appellate reversal rates in England as opposed to the United States, it appears worthwhile to implement the pilot project that H.R. 628 proposes. For a relatively low cost and without much disruption to the existing federal court structure, H.R. 628 offers the potential to reduce the appellate claim construction reversal rate, thereby affording needed certainty to U.S. inventors and investors who require stability in the U.S. patent litigation process.

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<sup>143</sup> *Id.* (citation omitted).