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Specializing District Courts for Patent Litigation

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— Note —

SPECIALIZING DISTRICT COURTS FOR
PATENT LITIGATION

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INTRODUCTION

Specializing the judiciary is a contentious topic in an American legal system that assumes generalist judges can handle any case that comes before them. However, it has been acknowledged that patent law requires some form of specialization, whether it is among lawyers who prosecute patents before the Patent and Trademark Office (PTO) or the judges on the appellate court that reviews patent cases. Congress also recently passed a law that went even further to build patent law expertise in the judiciary, creating the Patent Pilot Program to allow participating district courts to designate specific judges to hear patent cases in that district.¹

But, while this is an admirable experiment to promote specialization for patent litigation at the trial court level, the Patent Pilot Program may have been misguided in the way it addressed the problems identified in patent law jurisprudence. As the program is now seven years into its ten-year duration,² and the midpoint report on the

1. Patent Cases Pilot Program, Pub. L. No. 111-349, 124 Stat. 3674 (2011).

2. *Id.*

program has been issued by the Federal Judicial Center,³ this Note aims to look at whether the program is achieving its goals of creating expert judges for patent cases⁴ or whether at the end of its duration Congress should consider other means of patent reform.

Part I of this Note will review studies that occurred prior to the passage of the Patent Pilot Program to evaluate what was already known about both patent litigation in district courts and district courts' relationship with the Federal Circuit. Part I will then go on to review the information from the five-year report and discuss qualities unique to patent law that lack data. Finally, Part I will address the passage and implementation of the American Invents Act (AIA)⁵ that occurred after the Patent Pilot Program began. Part II will look at the arguments for and against specialization before reviewing several suggestions of how to specialize trial courts for patent litigation. Part III of this Note will address what should be prioritized in patent litigation reform and then lay out recommendations concerning the Patent Pilot Program and how to reform district court litigation of patent cases going forward.

I. SPECIALIZATION AT THE TRIAL COURT LEVEL

In 2011, Congress enacted the Patent Pilot Program, which adjusts how patent cases are transferred between judges in federal district courts.⁶ Thirteen districts volunteered; in these districts, at least one designated judge can have any patent case originally assigned to another judge in that district voluntarily reassigned to a designated judge.⁷ This pilot program will last for ten years, with regular reports published comparing the empirical differences between patent cases handled by designated judges and nondesignated judges.⁸ The reports evaluate the effect of judicial designation by looking at the extent to which the program has succeeded in developing expertise in patent cases among the designated district court judges; the extent to which

3. MARGARET S. WILLIAMS ET AL., FED. JUDICIAL CTR., PATENT PILOT PROGRAM: FIVE-YEAR REPORT (2016).

4. 124 Stat. at 3674.

5. Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

6. 124 Stat. at 3674.

7. WILLIAMS, *supra* note 3, at 1 & n.2. Voluntary reassignment means that a nondesignated judge who the case was originally assigned to can choose to decline that case, after which the case is randomly reassigned to a designated judge. 124 Stat. at 3674. A nondesignated judge can also choose to keep the case. WILLIAMS, *supra* note 3, at 1 n.3.

8. 124 Stat. at 3675-76. The Federal Judicial Center put out its first report in 2016 with data from the first five years of the program. WILLIAMS, *supra* note 3.

the program improved the efficiency of the courts involved due to that expertise; the difference between designated judges and nondesignated judges in terms of the rate of reversal by the Court of Appeals for the Federal Circuit on the issues of claim construction and substantive law; the difference between designated judges and nondesignated judges in terms of the period of time elapsed from the date a case is filed to the date a trial begins or summary judgment is entered; evidence of forum shopping; and an assessment of whether Congress should either extend or make the program permanent.⁹

While there was general support for this program and some evidence supporting its setup,¹⁰ there was reason to believe that just building experience among generalist judges was not the solution to certain stated goals of the program, like reducing claim construction reversal rates.

A. *What We Knew*

The concept of building up district court judges' patent expertise by increasing experience to improve patent litigation is not without analogs. The International Trade Commission (ITC) is an independent, quasijudicial federal agency that adjudicates cases involving imported products that allegedly infringe intellectual property rights.¹¹ Because that adjudication is a large part of the ITC administrative law judges' (ALJs) dockets, ALJs are considered patent law experts due to their experience.¹² Prior to the implementation of the Patent Pilot Program,

9. 124 Stat. at 3675–76.

10. See Adam Shartzter, *Patent Litigation 101: Empirical Support for the Patent Pilot Program's Solution to Increase Judicial Experience in Patent Law*, 18 FED. CIR. B.J. 191 (2009); Nancy Olson, *Does Practice Make Perfect? An Examination of Congress's Proposed District Court Patent Pilot Program*, 55 UCLA L. REV. 745 (2008).

11. *About the USITC*, INT'L TRADE COMM'N, https://www.usitc.gov/press_room/about_usitc.htm [<https://perma.cc/DT7Y-M92A>] (last visited Jan. 18, 2018).

12. David L. Schwartz, *Courting Specialization: An Empirical Study of Claim Construction Comparing Patent Litigation Before Federal District Courts and the International Trade Commission*, 50 WM. & MARY L. REV. 1699, 1702 (2009). It appears that fewer ALJs have technical backgrounds than when this study was done. Holly Lance reports two ALJs had technical backgrounds. Holly Lance, *Not So Technical: An Analysis of Federal Circuit Patent Decisions Appealed from the ITC*, 17 MICH. TELECOMM. & TECH. L. REV. 243, 260–61 (2010). Currently, it appears that only one ALJ has a STEM degree. See *Administrative Law Judge Photos*, INT'L TRADE COMM'N, https://www.usitc.gov/press_room/bios/alj_photos.htm [<https://perma.cc/7E8S-53Q3>] (last visited Apr. 1, 2019). Lance also reports lower reversal rates for the ITC, with the Federal Circuit reversing claim construction at a rate of 26.2 percent. Lance, *supra*, at 266. She speculates the difference in reversal rates between her and Schwartz's studies is due to either a difference in study parameters, where she looked

data was available indicating that building expertise through exposure would not correct certain identified issues in patent litigation—specifically, the rate at which claim construction is overturned by the Federal Circuit.¹³

David L. Schwartz cautioned against holding an optimistic view of what problems the Patent Pilot Program would solve.¹⁴ He found that claim construction rulings by ALJs were not overturned at a lower rate than those by generalist district court judges.¹⁵ The district courts with the five busiest patent dockets at the time of his study¹⁶ had an average claim construction reversal rate of 30.7 percent, while the ITC's reversal rate on claim construction was 31.0 percent.¹⁷ He also looked at whether individual ALJs were overturned less often if they had accrued more experience and found that ALJs with ten or more claim construction cases did have a lower reversal rate than compared to the ITC's average overall.¹⁸ However, Schwartz noted that while these numbers are relevant when considering how to fix the patent litigation system, the small number of cases—only twenty-nine—that were appealed from the ITC with claim construction issues limits the robustness of his findings.¹⁹

at whether each individual issue was reversed and Schwartz focused on the ultimate ruling of a case, or that different time periods were studied. *Id.*

13. Schwartz, *supra* note 12, at 1699.

14. *Id.* at 1733–34.

15. *Id.*

16. The five busiest included the Northern District of California, Central District of California, Northern District of Illinois, District of Delaware, and Southern District of New York. *Id.* at 1713 & tbl.1. Interestingly, the Eastern District of Texas did not make the top five for this time frame. See *infra* note 40 and accompanying text. Four of those five are also now designated districts in the Patent Pilot Program, the fifth being the District of Delaware. Williams, *supra* note 3, at 3 tbl.1. Schwartz looked at the aggregate number of patent cases of a court's docket from the years 1996–2008. Schwartz, *supra* note 12, at 1711.

17. Schwartz, *supra* note 12, at 1716.

18. *Id.* at 1716–18. Their reversal rate was 27.3 percent. *Id.* at 1717–18.

19. *Id.* at 1712, 1716. ALJs construed claims in more instances, but these were not appealed, mostly due to settlement. *Id.* at 1718. This is one issue with basing an analysis only on the cases appealed. *Id.* There are other differences that render district courts and the ITC imperfect analogs—the ITC is only a quasijudicial body and its investigations are technically administrative proceedings. However, the substantive law is basically the same as in district courts, and there is no difference in the law of claim construction, which the Federal Circuit reviews de novo. *Id.* at 1710. And, while litigation before the ITC uses its own rules, these generally parallel the Federal Rules of Civil Procedure. *Id.* One of the biggest differences between the tribunals is the actual appeals process to the Federal Circuit:

There was indirect, contradictory evidence from a study done by Adam Shartzer that found a difference in reversal rates in cases appealed from district court judges with more experience in patent law.²⁰ The study compared the reversal rates of the fifteen district court judges across the country who had heard the most patent cases to the average reversal rate of the district courts in the top 15 percent of districts that hear patent cases.²¹ This study took a broader approach and looked to measure overall reversal rates—not just reversals on claim construction.²² As the Patent Pilot Program's goal was to address not only claim construction reversal rates but an assortment of identified problems, Shartzer noted that a better metric was whether increased experience interacting with the Federal Circuit increased expertise.²³ He tested this by evaluating if judges who had more cases appealed to the Federal Circuit had higher affirmance rates.²⁴ Results showed that the judges in districts with the top 15 percent of the patent docket were reversed at a rate of 11.53 percent, while all district court judges across the country were reversed at a rate of 15.07 percent.²⁵ More compelling to the conclusion that more experience interacting with the Federal Circuit increases expertise was the finding that the fifteen judges who sat for the most cases appealed to the Federal Circuit were reversed in an average of only 4.51 percent of cases.²⁶

appeals from district courts proceed directly to the Federal Circuit, but an appeal at the ITC proceeds from an ALJ's initial determination to a petition to the Commission and, if a violation is found, can then be reviewed by the President before the case is appealed to the Federal Circuit. *Id.* at 1710–11. The Commission is a political institution that has the option to review initial determinations—including claim construction. *Id.* at 1711. The Commission considers the American public interest when reviewing the appropriateness of a remedy for an investigation. *Id.* After the Commission's review, the President has sixty days to intervene, and it is only after the end of the presidential review period that the Federal Circuit can hear an appeal. *Id.* Interesting to note, this study also looked at reversal rates for claim construction reviewed and altered by the Commission, versus the reversal rate where the Commission did not alter claim construction: the reversal rate for altered claim construction was 40.0 percent compared to 26.3 percent for reviewed but unaltered claim construction. *Id.* at 1719.

- 20. Shartzer, *supra* note 10, at 219.
- 21. *Id.* at 234–35. The top 15 percent of jurisdictions were the only jurisdictions that qualified for the proposed patent program at the time of the study. *Id.* at 219.
- 22. *Id.* at 227, 233 n.328.
- 23. *Id.* at 227.
- 24. *Id.* at 231.
- 25. *Id.* at 233.
- 26. *Id.* at 235.

The influence of these two studies depends on the different goals identified by each author. How the data produced from the Patent Pilot Program is framed also depends on this question, as does the utility of the program in general. If the main goal for evaluation is lowering claim construction reversal rates, then data collected prior to the pilot program foreshadows whether the program will be considered a success: studies indicated that when it comes to claim construction, there was not strong evidence that having judges sit on more cases would have an appreciable impact.²⁷ Schwartz himself lists a few different possibilities for this, none of which were addressed by the Patent Pilot Program.²⁸ However, claim construction reversal rates alone may just be a bad metric.²⁹ The Patent Pilot Program sets out several goals to evaluate, which are lost in the concentration on claim construction.³⁰ It is the other purposes—evaluating expertise on other substantive issues of patent law, increasing efficiency of litigation, and gauging specialization’s effect on forum shopping—that should be kept at the forefront when evaluating the data collected in the first five years of the Patent Pilot Program.

B. What We Know

The five-year report mandated by Congress was issued in April 2016.³¹ It evaluated several features of the program: judge participation in the pilot program by district; designated and nondesignated judges’ experience with patent litigation; filings and terminations in each of the thirteen pilot districts, including method of termination and how long cases stay open before terminating; the effect of staying cases for proceedings in other tribunals; the prevalence of *Markman* hearings and appointments of third-party experts; the frequency with which summary judgment is entered; appeals of patent cases from pilot courts; and the choice of venue for patent filings relative to civil filings as a whole.³²

27. Schwartz, *supra* note 12.

28. Schwartz, *supra* note 12, at 1731–32. Those possibilities included that judges without technical backgrounds cannot do claim construction, the Federal Circuit is wrong, or claim construction is indeterminate. *Id.*

29. Shartzter, *supra* note 10, at 218; Etan S. Chatlynne, *On Measuring the Expertise of Patent-Pilot Judges: Encouraging Enhancement of Claim-Construction Uniformity*, 12 J. MARSHALL REV. INTELL. PROP. L. 309, 321 (2013).

30. Shartzter, *supra* note 10, at 217–20. Olson, *supra* note 10, at 762.

31. WILLIAMS, *supra* note 3. In patent litigation, *Markman* hearings are hearings that usually occur prior to trial where patent claims are construed. *Id.* at 23.

32. *Id.* at 1–2. The study also looked at the effects of case inclusion in multidistrict litigation (MDL) but found that the number of reported

The data the Federal Judicial Center used in its analysis included thirteen district courts participating in the Patent Pilot Program with a total of sixty-six designated judges.³³ As the goals of the program are tied to the idea that experience increases expertise among designated judges, the report begins with an evaluation of the amount of experience the designated judges had handling patent litigation prior to the program.³⁴ The report broke down the differing levels of experience among all judges in the thirteen designated districts prior to the start of the program and found a wide range: most judges had handled from 0–50 patent cases, but some judges had seen 351–1,175 filed cases and 351–861 terminated cases.³⁵ The same pattern has held five years into the program: at the higher end of the spectrum, a few judges have increased the number of cases over which they have presided to 351–4,506 filed cases and 351–3,206 terminated cases, but most still have only seen fifty total cases.³⁶

At the start of the program, there was a statistically significant difference between the amount of experience designated and nondesignated judges had in both filed and terminated patent cases; after five years, there is still a statistically significant difference in filed cases.³⁷ However, while this shows a trend in the data, experience among individual designated judges and across the districts varies due to factors like the percentage of the judges designated in each district, the amount of experience each judge had prior to the program, and the number of cases filed in each district.³⁸ For example, the Eastern District of Texas has the most patent cases filed, and 98 percent of those cases are heard by designated judges; on the other hand, the Central District of California has the second highest number of patent

cases involved in MDLs in the designated districts was too small to analyze. *Id.* at 16. The study also looked at the frequency with which companies file multiple lawsuits in the same district on the same day or sequentially to evaluate the filing activity of nonpracticing entities—i.e., patent trolls. *Id.* at 2. For results, see *id.* at 30 tbl.26, 31 tbls.27 & 28.

33. *Id.* at 2. The report analyzed data available as of January 5, 2016 and included all patent cases filed on or after the individual start date of the pilot program established by each designated district court. *Id.*

34. *Id.* at 3.

35. *Id.*

36. *Id.* at 4.

37. *Id.* at 5.

38. *Id.* at 6.

cases filed at 1,592, but only 49 percent of those cases are heard by designated judges.³⁹

Across all districts, there were 3,878 transferred patent cases since the start of the program and 72 percent were transferred for purposes of the Patent Pilot Program.⁴⁰ This indicates that the program is working to increase the experience of certain judges by increasing the amount of patent cases they see, though at varying rates among individuals and across districts.⁴¹

Another stated benefit from increased judicial experience is efficiency in handling cases, and the study reports that there is a statistically significant difference between the number of days a designated and a nondesignated judge has a case on their docket from filing to termination.⁴² Where there is an average of 287 days between filing and termination for nondesignated judges, designated judges average only 257 days.⁴³ Because the Patent Pilot Program's method of increasing judicial experience is through a procedural measure that allows judges to take on extra patent cases by having them transferred from other judges, which can take up to thirty days, the study also measured duration by pilot status, number of transfers, and a judge's number of terminations to account for patent experience.⁴⁴ The study found that pilot cases were terminated 8 percent faster, further evidencing that pilot cases are completed faster than nonpilot cases.⁴⁵

39. *Id.* at 9 tbl.3. That is not the lowest percentage—in the Northern District of California only 23 percent of filed patent cases are heard by designated pilot judges. *Id.*

40. *Id.* at 10. There were 2,776 total transferred cases. The purpose was determined to be for the pilot program because the cases were transferred to a designated judge within the transfer window established by the district. *Id.*

41. *Id.* at 38.

42. *Id.* at 22. The study also separated pending and terminated cases and looked at how many terminations each district had, the average percentage of terminations in both pilot and nonpilot cases, the different methods of termination, and the percentage of stays in pilot and nonpilot cases. *Id.* at 12–21.

43. *Id.* at 22 tbl.16.

44. *Id.* at 22–23.

45. *Id.* at 23. Special features of the patent system were taken into account when considering the duration of cases, including stays for proceedings at the ITC and PTO, *id.* at 17–18, 20–21, holding *Markman* hearings, *id.* at 23–25, and the appointment of a technical advisor or special master, *id.* at 26–27. Only 4 percent of pilot cases were stayed for review by the ITC or PTO, but these stays create a statistically significant increase in case duration. *Id.* at 20. Pilot cases hold 60 percent of all the *Markman* hearings done in patent litigation, *id.* at 23, and cases with *Markman* hearings have a longer duration time but are less likely to reach a

The effect of the Patent Pilot Program on appeals was also studied.⁴⁶ Overall, the percentage of pilot cases appealed (3 percent) is not significantly different from nonpilot cases (4 percent) in the same districts, although there is variance between the districts.⁴⁷

The study also attempted to look at whether the decisions handed down by the Federal Circuit were of a different type—i.e., procedural or substantive.⁴⁸ More substantive decisions were handed down in pilot cases.⁴⁹ However, there was no difference between the percentage of pilot and nonpilot cases affirmed or reversed on appeal; under two different definitions of when the district court reached the “correct” decision, there was no significant difference between the pilot and nonpilot cases.⁵⁰ Under the more lenient definition of correct for district court decisions, pilot cases were affirmed by the Federal Circuit ninety-one percent of the time.⁵¹

judgment on the merits, *id.* at 25. Pilot cases also make up a majority of the litigation that includes an appointment of a special master or technical advisor, with pilot cases representing 83 percent of cases where one is appointed. *Id.* at 26. Cases that have a special master or technical advisor appointed have a significantly longer duration. *Id.* at 27. These case events are unique to patent litigation, are related to an increase in the duration of litigation, and, for two of the factors, mostly take place in the pilot cases—yet, designated pilot judges still resolve patent litigation faster. *Id.* at 23. Stays are out of the court’s control once granted. *Id.* at 17. *Markman* hearings may only indicate a longer duration because if a *Markman* hearing is held, then the case is further along in litigation. *Id.* at 25. Similarly, with an appointment of a special master or technical advisor, it is unclear if the appointment is the result of a longer, more complicated case or is itself a cause of the increased duration. *Id.* at 27.

46. *Id.* at 31–32.

47. *Id.* at 32 & tbl.29. For example, in the three California pilot districts, pilot cases are appealed significantly more than nonpilot cases. *Id.* at 32. In considering what was driving appeals, the study looked at the case disposition on appeal. *Id.* at 32–33. While pilot cases from districts that were more likely to result in a judgment had more appeals than districts that disposed of less cases on a judgment, the dispositions of pilot cases for any type of disposition was not significantly different from nonpilot cases. *Id.* at 33.

48. *Id.* at 35. Substantive decision was defined as anything other than “dismissed.” *Id.* at 36.

49. *Id.* at 36.

50. *Id.* Under the stricter version of correct, a case had to be affirmed and this occurred 72 percent of the time for pilot cases; under the more lenient version of correct, a case had to be affirmed in part and the appeal dismissed. *Id.*

51. *Id.* This is not a statistically significant difference from nonpilot cases, which are correct 88 percent of the time under this definition. *Id.*

The five-year report concluded by finding that the Patent Pilot Program appears to be achieving its goal “of putting patent cases before experienced judges, who terminate these cases faster than judges without such patent experience.”⁵²

C. What This Does Not Answer

The Patent Pilot Program still does not guarantee either a technical background or technical support for designated judges. While an earlier proposal for the program included funding for hiring technically trained law clerks and training for designated judges,⁵³ this did not make it into the final version, basing the effort to build expertise solely on experience. Some advocates for specialization see this as a problem, arguing that judges should have technical backgrounds that match the technology type they review.⁵⁴ Charlie Stiernberg calls for the epistemic legitimacy of judges at both the trial and appellate level to increase the accuracy of decisions concerning the intersection of science and law.⁵⁵ He points out that a judge without a technical background in a patent case is at a serious disadvantage when performing basic judicial functions, like evaluating information from experts or construing a claim from the point of view of a person having ordinary skill in the art.⁵⁶

While Stiernberg reviewed prior literature showing the reversal rate for technically trained district court judges is higher than

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52. *Id.* at 39. Before concluding, the report looked at whether forum shopping was occurring across the districts in the Patent Pilot Program by comparing the general number of civil filings with patent filings. *Id.* at 36–37. A couple of districts did have a higher percentage of patent filings than would be expected compared to all civil filings in that district, with the Eastern District of Texas being exceptionally high. *Id.* at 37–38. However, the report was done prior to *TC Heartland LLC v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017), and it is unknown what this change in venue interpretation will do to the percentage of patent cases filed in the Eastern District of Texas.
53. Establishing a Pilot Program in Certain District Courts, H.R. 34, 110th Cong. § 1(f) (1st Sess. 2007).
54. See, e.g., Charlie Stiernberg, *Science, Patent Law, and Epistemic Legitimacy: An Empirical Study of Technically Trained Federal Circuit Judges*, 27 HARV. J. L. & TECH. 279, 280 (2013).
55. *Id.* at 281–83. He defines epistemic legitimacy as decision makers who possess basic tools of scientific reasoning. *Id.* at 282.
56. *Id.* at 282. The person having ordinary skill in the art (PHOSITA) is the reasonable person of patent law; a judge must make a determination of who is the PHOSITA in every case, based on the technology under review, before the judge construes the claims of the patent, as the judge must construe the claims as a PHOSITA would understand the claims. *Id.* at 283; see *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).

nontechnically trained judges, Stiernberg points out that the small number of technically trained federal district court judges (eight) and the relatively few cases appealed from them (only nineteen cases with forty-six construed claims) was insufficient to infer the effect of a technical background.⁵⁷ So, he reviewed decisions on claim construction by the Federal Circuit, where a higher percentage of judges possess technical backgrounds, in order to study whether those Federal Circuit judges who have a technical background in the scientific field under review disagree with district court claim construction more than the nonexperts judges on the Federal Circuit.⁵⁸ This finding would show that only those judges with epistemic competency recognize all problematic constructions, and, as such, a claim construction is not more legitimate if reviewed by nonexpert appellate judges, even with their experience-built expertise.⁵⁹

He found that when the reviewing Federal Circuit judge has a technical background in the same field as the patent before the panel, that judge is 53.42 percent more likely to modify the claim construction than a nonexpert judge.⁶⁰ This indicates that the reversal rates for claim construction may be even higher if expert judges were to review every

57. Stiernberg, *supra* note 54, at 285–86. Technically trained judges were reversed at a rate of 47.4 percent. *Id.* at 286.

58. *Id.* at 287. Stiernberg used one hundred randomly selected cases from April 30, 2007 to April 30, 2012, which had a total of 159 separate claim constructions and analyzed the vote of each judge to affirm or reject the construction, for a total sample size of 473 votes. *Id.* at 288–89. Nonexpert was used to refer to those judges without technical backgrounds in the area under review. *Id.* at 287.

59. *Id.* at 287. Stiernberg contrasts this idea with alternative causes for the claim construction reversal rate of 30 percent agreed upon by other sources, like the indeterminate nature of claim construction or the Federal Circuit's own failure to properly articulate the law; he concludes that there would be no difference in the claim construction reversal rates between expert and nonexpert judges at the Federal Circuit if the alternative causes were true. *Id.*

60. *Id.* at 295. Stiernberg looked at several other factors in considering claim construction reversal rates, including the experience of the Federal Circuit judge, general experience of the district court judge, ideology differences between the district court judge and the Federal Circuit judges according to the party of the President who appointed them, and the experience of the district court judge in patent law as measured by the number of patent cases on their docket at the time they issued the claim construction. *Id.* at 290–92. There was no statistical significance between the first three factors and whether a claim construction was reversed, but he did find that the more experienced a district court judge was according to his metric, the less likely their claim construction was to be overturned. *Id.* at 294. Stiernberg noted in his literature review that experience does marginally improve reversal rates. *Id.* at 295.

case.⁶¹ While Stiernberg notes that this does not prove the converse hypothesis that technically trained district court judges would be overturned at a lower rate, he believes the data raises normative questions about the legitimacy of nontechnically trained district court judges making mistakes that are then not caught at the appellate level by nonexpert appellate judges.⁶² Overall, Stiernberg is not suggesting that nonexpert judges can never understand technical decisions, but he does make the point that Congress' effort to reform the patent system by increasing judicial experience alone, without considering adding mechanisms to increase technical knowledge in the judiciary, is insufficient for reducing errors in claim construction.⁶³

In comparison, Holly Lance performed an ITC analysis that found that ITC decisions are reversed by the Federal Circuit at a lower rate when technical issues are considered, but at a similar rate as district courts when nontechnical issues are considered, even though most ALJs lack technical backgrounds.⁶⁴ Looking at the last twenty-five investigations appealed from the ITC to the Federal Circuit, Lance found 101 separate issues.⁶⁵ She divided these issues into five categories based on how they were reviewed by the Federal Circuit: technical claim construction issues, technical infringement/invalidity issues, nontechnical claim construction issues, nontechnical infringement/invalidity issues, and non-patent issues.⁶⁶ Overall, she

61. *Id.* at 299.

62. *Id.* at 296. There is the alternative argument that this study also does not disprove that technical expert appellate judges may overturn claim construction more often because they are acting as “technocrat-kings” and substituting in their own preferred claim construction for that of the district court, instead of finding more errors in the district court than their nonexpert counterparts. *Id.*

63. *Id.* at 297.

64. Lance, *supra* note 12, at 244–45. She also analyzed whether there was a difference in affirmance rate overall and by technical versus nontechnical issues between those judges with technical backgrounds and those without. *Id.* at 261. The results did suggest that there is a difference in affirmance rates overall, with those judges with a technical background performing better, but each judge had wide variances in affirmance rate and some have only ruled on what was considered an appealed technical issue one time. *Id.* The small sample size thus makes it difficult to conclude anything definitive about the effect of the technical backgrounds and ALJs' reversal rate in the Federal Circuit. *Id.*

65. *Id.* at 253.

66. *Id.* at 255. These spanned the time frame from May 2001 to April 2010. *Id.* at 253. While noting that at a certain level most issues in a patent case, especially with claim construction, are technical, she differentiated nontechnical claim construction and infringement/invalidity issues from the technical ones by distinguishing when “the Federal Circuit analyzed technical aspects of the patent, such as details about how the device

found that the Federal Circuit reviewed more nontechnical issues than technical, and including affirmance in part, overall the ITC was affirmed at the Federal Circuit 70.3 percent of the time.⁶⁷ On technical issues, the ITC was affirmed at an even higher rate—80.8 percent of the time.⁶⁸

This study implies that having patent experience through specialization alone improves a trial tribunal's result on appeal to the Federal Circuit,⁶⁹ which Steirnberg also recognize, although he categorized this improvement as marginal.⁷⁰ And, while certain features of the ITC—like the influence of technically trained law clerks and the Office of Unfair Import Investigations' staff attorneys, experienced patent litigators, are involved in the investigations—were not analyzed but indicate that the ITC ALJs have more technical support than district court judges, the fact that issues are more likely to be analyzed in a nontechnical way suggests that having a technical background should not be considered a prerequisite to ruling on patent law issues as this would not help a judge deal with nontechnical matters.⁷¹ Instead, Lance posits that to deal with these issues, having patent law experience would prove more useful than having a technical background.⁷² In dealing with technical issues, a judge could rely on law clerks, the parties, or experts to educate them.⁷³ She does not discount technical

worked, or engaged in an in-depth discussion about the prior art" as technical; and when the Federal Circuit looked to "non-technical techniques to make determinations, such as when it focused on grammatical issues, turned to dictionaries or specifications for definitions" or only needed to talk about the patent in broad terms as nontechnical. *Id.* at 255–58. Non-patent issues were those appealed that do not necessarily relate to patent law at all, like certain civil procedure issues including standing and timing for the petition for review. *Id.* at 258.

67. *Id.* at 259. Only 25.7 percent of the issues were technical in nature according to her metric. *Id.* For claim construction, this study finds that the ITC is reversed 26.2 percent of the time. *Id.* at 266. As noted previously, this study also finds a lower reversal rate than other studies for both the ITC and district courts for claim construction. *Id.* at 263–64. On what she considered technical claim construction appeals, the ITC is affirmed 89.5 percent of the time. *Id.* at 259. However, due to the small sample size that claim construction issues make up—only 25 percent of the issues analyzed—she cautions using it as predictor for the success of a specialized patent program. *Id.* at 266.

68. *Id.* at 264. This is 84.6 percent if affirmance in part is included. *Id.*

69. *Id.* Lance cautions against using this inference to support the Patent Pilot Program because the differing nature of the ITC and district courts. *Id.*

70. Steirnberg, *supra* note 54, at 286.

71. Lance, *supra* note 12, at 267–69.

72. *Id.* at 269–70.

73. *Id.* at 270.

backgrounds as a possible consideration, since it can be beneficial in certain instances, but she argues it is not the ultimate solution for reforming the patent system.⁷⁴

D. What the AIA Could Add

Two years into the Patent Pilot Program's run, the AIA was implemented.⁷⁵ Relevant to this Note, the AIA added a new procedural mechanism to patent law, *inter partes* review (IPR), that allows third parties to challenge a patent's validity before the PTO instead of in a district court.⁷⁶ In an IPR proceeding, the Patent Trial and Appeals Board (PTAB) issues decisions on the patentability of the challenged

74. *Id.* Lance does call back to the results that those ALJs with technical backgrounds did perform better in front of the Federal Circuit, especially when it comes to claim construction, indicating that technical backgrounds could improve a judge's performance. *Id.* Additionally, she mentions a similar idea as Stiernberg in raising concerns about the disadvantage a judge with no technical background has in trying to evaluate outside experts' reliability on a subject matter and that even having some training in the scientific method—not even the area of study that a particular patent concerns—could put a judge in a better position to evaluate credibility. *Id.*; Stiernberg, *supra* note 54, at 282. Unlike Stiernberg, who concluded that claim construction reversal rate is not due to claim construction's indeterminate nature, *id.* at 287, Lance did leave open that possibility as an explanation for why nontechnically trained ALJs would be overturned on nontechnical issues more than on technical issues. Lance, *supra* note 12, at 267. She suggested that claim construction is generally unpredictable and technical issues give more guidance for construing claims, but nontechnical issues give appellate judges more leeway in how to analyze an issue. *Id.* Etan Chatlynnne, in raising concerns about the futility of creating specialized trial judges to address claim construction reversal rates because of the mixed law created by the Federal Circuit, suggests that the indeterminate nature of claim construction and high reversal rates on the matter are due to two different strains in Federal Circuit jurisprudence for construing a claim. Chatlynnne, *supra* note 29, at 313–14. He classifies the two approaches as procedural, where judges give the most weight to claim language, versus holistic, where claims are interpreted in a more all-encompassing way that looks at the claim language, patent disclosure, prosecution history, dictionaries, and expert testimony. *Id.* at 314. According to the study he was reviewing, which tracked cases decided after *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), this question was not solved by the *Phillips* decision because neither doctrinal strain is about the priority of extrinsic evidence. *Id.* Thus, as claim construction could be decided in two different ways, no matter how much expertise a trial judge has, whether an appealed case is remanded will depend on who is on the Federal Circuit panel. *Id.* at 320.

75. Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011).

76. *Id.* at 299.

patent.⁷⁷ The administrative patent judges (APJs) who staff the PTAB have technical backgrounds and only oversee patent cases.⁷⁸ Although there are differences in procedure between IPRs and district court litigation,⁷⁹ these parallel systems can be used to compare how generalist district court judges and experienced, technically trained APJs are reviewed by the Federal Circuit.⁸⁰ Gibson Dunn tracked the

77. *Id.* at 303–04.

78. Jennifer R. Bush, *Administrative Patent Judges: Not Your Typical Federal Judge*, FENWICK & WEST LLP (July 10, 2014), <https://www.fenwick.com/publications/pages/administrative-patent-judges-not-your-typical-federal-judge.aspx> [<https://perma.cc/73SS-XJ9D>].

79. IPR proceedings differ from district court litigation. In IPRs the PTO applies the evidentiary standard by preponderance of the evidence and district courts apply a clear and convincing evidentiary standard. Laura E. Dolbow, *A Distinction Without a Difference: Convergence in Claim Construction Standards*, 70 VAND. L. REV. 1071, 1706 n.22 (2017). The PTO recently promulgated a new rule for what claim construction standard is applied in IPRs, changing the standard from the broadest reasonable interpretation to the *Phillips* standard used by district courts, thus making the systems more similar. *PTAB Issues Claim Construction Final Rule*, USPTO, <https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/procedures/ptab-issues-claim-construction> [<https://perma.cc/XDL4-DDF3>] (last visited Dec. 14, 2018).

80. *Federal Circuit Year in Review*, GIBSON DUNN, 2016/2017, at 7, <https://www.gibsondunn.com/wp-content/uploads/2017/11/Federal-Circuit-2016-2017-Year-in-Review-1.pdf> [<https://perma.cc/Y3NR-GARU>] (last visited Mar. 15, 2018) [hereinafter GIBSON DUNN 2016/2017]. Several intellectual property firms do yearly reviews of the Federal Circuit, which includes reversal rates of district court, ITC, and IPR appeals. Gibson Dunn's has analysis running from August 1, 2014 to July 31, 2015, (2014/2015), when the first PTO appeals from IPRs were decided. *Federal Circuit Year in Review*, GIBSON DUNN, 2014/2015, at 5, <https://www.gibsondunn.com/wp-content/uploads/documents/publications/Federal-Circuit-2014-2015-Year-in-Review.pdf> [<https://perma.cc/DWW5-2FTA>] (last visited Mar. 15, 2018). In 2014/2015, they reviewed 110 precedential decisions, with 91 percent coming from district courts, 7 percent coming from the PTO, and 2 percent coming from the ITC; district court appeals were reversed 28 percent of the time (37 percent including reversed in part), and 29 percent from the PTO were reversed (41 percent in part). *Id.* at 21. From the ITC there were only two cases before the Federal Circuit and, including reversed in part, both cases were reversed. *Id.* Gibson Dunn's analysis for 2015/2016 year reviewed 134 precedential decisions, 66 percent from district courts, 31 percent from the PTO, 2 percent from the ITC, and 1 percent from the Court of Federal Claims; district court appeals were reversed 33 percent of the time (39 percent in part), the PTO was reversed in 21 percent of appealed cases (29 percent in part), and the ITC was reversed on 25 percent of appeals. *Federal Circuit Year in Review*, GIBSON DUNN, 2015/2016, at 5, 26, <http://www.gibsondunn.com/publications/Pages/20152016-Federal-Circuit-Year-in-Review.aspx> [<https://perma.cc/RR9R-JD8P>] (last visited Mar. 15, 2018).

124 precedential decisions issued by the Federal Circuit in 2016–2017 and found that 60 percent of the decided patent cases were from district court, 36 percent were from the PTO, 2 percent were from the ITC, and 2 percent were from the Court of Federal Claims.⁸¹ From those decisions, the Federal Circuit reversed the appeals from district courts 20 percent of the time (including reversed in part, it is 28 percent) and from the PTO 31 percent of the time (including reversed in part, it is 45 percent).⁸² The difference in how these two methods of challenging patents are treated by the Federal Circuit will become a good source of data for further study, but as it currently stands, a data pool of only three years may not be reliable as an accurate comparative measure of reversal rates between the technically trained APJs and district court judges.

II. SPECIALIZATION'S ADVANTAGES AND DISADVANTAGES

Advocates of further specialization of district court judges argue that the Patent Pilot Program, by focusing only on increasing experience, does not go far enough in changing the relationship between trial judges and patent lawsuits.⁸³ For example, Jeff Becker advocates expanding the reach of a patent reform bill to address the technical proficiency of trial judges.⁸⁴ Becker believes the assumption that the current program rests on—that the additional experience designated judges get from having cases transferred to them optionally by their peers will create the necessary increase in efficiency and expertise in generalist judges—is flawed, especially if Congress' goal was to reduce reversal rates.⁸⁵ Instead, he argues that Congress should take a more substantive step, like making wholesale changes to trial court jurisdiction for patent law based on a hybrid of other countries' models.⁸⁶ This would result in an exclusive patent court, or at least exclusive patent jurisdiction in select district courts with a panel of technically proficient patent judges to whom cases are automatically assigned.⁸⁷ Further, the patent judges should be required to attend

81. GIBSON DUNN 2016/2017, *supra* note 80, at 26.

82. *Id.* at 28. The ITC was reversed 50 percent of the time, but only had two appealed cases. *Id.*

83. Jeff Becker, *On Creating Specialized Patent District Courts: Why H.R. 34 Does Not Go Far Enough to Address Reversal Rates in District Courts*, 61 SMU L. REV. 1607, 1618 (2008).

84. *Id.* at 1632.

85. *Id.* at 1618–19.

86. *Id.* at 1622.

87. *Id.* at 1623. Technical experience to Becker is equal to what the lawyers arguing need to possess—either the guidelines promulgated by the PTO

initial and continuing education with the Federal Judicial Center specifically created for long-term training in patent litigation.⁸⁸ And, to address claim construction issues, trial judges should be able to request opinions from the PTO on the validity of their claim construction—this would give judges further access to technical expertise and experience that would add weight to the decisions of the trial court should the construction go up on appeal.⁸⁹ Ultimately, he argues that Congress should take jurisdiction away from generalist district court judges and that solutions short of that are inadequate.⁹⁰

However, in the American judicial system there is skepticism around specialization generally and patent law specifically. Critics of the Federal Circuit have emphasized its capture by specialized interest groups and its dismissal of precedent in related law from other courts, which is moving patent law away from the mainstream legal field.⁹¹ Some have even suggested that the Federal Circuit should lose its exclusive jurisdiction over patent appeals, reasoning that the Federal Circuit's narrow focus on patent law deprives it of the benefit of debates in other fields of law that the other circuits have.⁹²

Chief Judge Diane Wood of the Court of Appeals for the Seventh Circuit argues that prizing the idea of uniformity above all else in patent law is a mistake and that the law would benefit in areas like claim construction and obviousness, where there is debate within the Federal Circuit itself, if different circuits could experiment with

or the requisite legal experience that patent litigators in district courts have. *Id.* at 1626. However, as Becker does not see experience as conferring expertise, at least some subset of the patent judges at a court would need technical backgrounds. *Id.* Although Becker thought the most positive aspect of the proposed program was the additional funding to hire technically proficient law clerks, he does not think judges should have to rely completely on technically experienced law clerks. *Id.* at 1626–27. And he objected that technical proficiency for law clerks remains undefined, which should be rectified by using the qualification the PTO sets out for the patent bar. *Id.* at 1627.

88. *Id.* at 1627.

89. *Id.* at 1628. The PTO's construction would not be dispositive, but Becker thinks that the PTO's opinion would be less likely to be reserved by the Federal Circuit given its evidentiary value. *Id.*

90. *Id.* at 1632.

91. Mark A. Lemley et al., *Does Familiarity Breed Contempt Among Judges Deciding Patent Cases?*, 66 STAN. L. REV. 1121, 1127 (2014). Lemley et al. is referencing articles that argue that the Federal Circuit has been captured by the United States government as an interest group, and thus it favors the PTO and patent validity. *Id.* at 1127 n.21.

92. *Id.* at 1128.

different strains of precedent.⁹³ However, Chief Judge Wood does not suggest abolishing the Federal Circuit altogether. Instead, she suggests that the appellate process for patents ought to work something like an appeal from the National Labor Relations Board, where a litigant would be able to appeal a decision to either the Federal Circuit, with its experience in patent law, or to the circuit court in the region where the complaint was originally filed.⁹⁴ Chief Judge Wood notes that she finds a more generalist judiciary advisable overall, as the law is meant to govern society and specialists create an “arcane” ivory tower around the law that makes it inaccessible to the public that it serves.⁹⁵

A. General Arguments for Specialization

Judicial specialization in general has several advantages and disadvantages that should be taken into account when deciding whether to pursue specialization in any particular field. Markus Zimmer compiled a list of arguments in favor of specialized courts: judicial system efficiency, legal system efficiency, uniformity, expertise, improved case management, elimination of forum shopping, and increased system flexibility.⁹⁶

Judicial efficiency and legal efficiency are related. Judicial efficiency is the idea that moving specialized fields from general jurisdiction courts to specialized courts removes the need for generalist judges to work through complicated subject matter and puts that subject matter in the hands of those who develop expertise in that area.⁹⁷ This leads to more efficient adjudication of disputes.⁹⁸ Legal system efficiency is about the

93. Diane P. Wood, *Is It Time to Abolish the Federal Circuit's Exclusive Jurisdiction in Patent Cases?*, 13 CHI. KENT J. INTELL. PROP. 1, 5 (2013). She argues that intercircuit debate “would likely give rise to a consensus methodology (which may be an entirely new posture), add resolution to the benefits and shortcomings of existing approaches, or present the Supreme Court with a clearer picture of the claim construction landscape.” *Id.* (quoting Craig Allen Nard & John F. Duffy, *Rethinking Patent Law's Uniformity Principle*, 101 NW. U. L. REV. 1619, 1656–57 (2007)).

94. *Id.* at 9.

95. *Id.* at 7.

96. Markus B. Zimmer, *Overview of Specialized Courts*, 2 INT'L J. COURT ADMIN. 1, 1–3 (2009). Zimmer's increased system flexibility—the idea that with a specialized court, the number of judges can be regulated based on boom and bust periods in litigation—and the idea of creating an administrative agency review mechanism, *id.* at 3, are less relevant to specialization in patent law, as patent litigation does not have the same fluctuating case load Zimmer worries about and already has an administrative review mechanism built in.

97. *Id.* at 1.

98. *Id.*

lawyers who present issues to judges—lawyers do not need to spend the time educating or developing an extensive record for a specialized judge as may be needed with a generalist judge, leading to reduced time and money spent on litigation.⁹⁹

Several of the generalized benefits of specialization are interconnected and relate to an overall theme of creating systematic uniformity and efficiency. Zimmer argues that specialized courts will lead to more uniformity in applying the law, which is supposed to make litigation more predictable and, thus, less necessary.¹⁰⁰ Expertise and greater jurisdiction-specific experience that leads to higher-quality decisions is also supposed to come from specialization, which is what the Patent Pilot Program is trying to achieve because the judges work in that area of law all the time.¹⁰¹ The increased exposure to both the procedural intricacies and the substantive subject matter in a specialized area of law leads to improvement in how to manage those cases that a generalist judge does not develop.¹⁰² These features all tie into an overall improvement to the efficiency of the system.¹⁰³ Forum shopping can also be eliminated by specialization at the trial level, as conflicts between different jurisdictions are removed by transferring the decision-making power to one body.¹⁰⁴

Zimmer also produced a list of arguments in opposition to specialization: inefficiency, judicial isolation, capture by narrowly focused groups, due process issues, limited public access, and lower quality of judges.¹⁰⁵ Inefficiencies from specialization can be created either when litigants forum shop by focusing on peripheral issues in order to get into a different jurisdiction or are forced to litigate related issues in separate proceedings in other jurisdictions.¹⁰⁶ Further, judges can become isolated by focusing on a limited set of issues.¹⁰⁷ Working across related legal issues is how a judge can foster and refine ideas and

99. *Id.* at 1–2.

100. *Id.* at 2.

101. *Id.*

102. *Id.* at 3.

103. *Id.* at 2.

104. *Id.* Zimmer also argues that administrative body decisions should be reviewed by one specialized body, as opposed to several generalist bodies, in order to prevent conflicting interpretations from issuing. *Id.* at 3. This would obstruct the objectives for establishing an agency to deal with an issue and lead to needless appeals, as well as, decrease a generalist court's efficiency by the adding narrowly focused and complex litigation to its docket. *Id.*

105. *Id.* at 3–4.

106. *Id.* at 3.

107. *Id.*

approaches for interpreting and applying the law, as well as, prevent a judge from becoming separated from the mainstream of legal theory and at risk for developing one-sided views that compromise objectivity.¹⁰⁸ The risk of compromised objectivity is also part of the idea of capture, which is where judges of a specialized court, because they interact with highly specialized attorneys and other interest groups, may develop a bias towards those specialized interests.¹⁰⁹ There are also due process concerns created by specialization, like the increased incentive for a narrowly specialized lobby to advocate for appointees who agree with their points of view, compared to the incentive to lobby for a generalist appointee who would rarely see a case concerning a group's issues of interest.¹¹⁰ Those same interests, who frequently appear before the specialized tribunal, would also have a leg up on litigants who are there less frequently—this compounds the concern over capture of a specialized court.¹¹¹ The level of public accessibility can also be diminished due to the possible restrictions on the location of the tribunal, which impose a travel burden that favors better funded litigants.¹¹² Zimmer also raises a concern over the quality of the judges who would accept an appointment to a specialized court, which can be seen as less prestigious due to the lack of need to master more than one area of law.¹¹³

In light of these concerns, Zimmer makes several recommendations for creating specialized courts: exercise care in selecting what areas of law to specialize, isolate the jurisdiction, define that jurisdiction to promote judicial interest, carefully consider the need for a specialized court, constrain the tendency towards isolation of the appointed judges, determine the appropriate organizational hierarchy, and make access to the court as convenient as possible for all prospective litigants.¹¹⁴ Zimmer suggests that legal fields that deserve specialization are ones in which a generalist judge is unlikely to achieve sufficient expertise because of narrow and detailed complexity of the legal issues or factual matters involved.¹¹⁵ But this area also has to be one that can be easily

108. *Id.* at 4.

109. *Id.*

110. *Id.*

111. *Id.*

112. *Id.*

113. *Id.*

114. *Id.* at 4–7. Zimmer also lists assessing whether or not judges should be given life tenure when creating a specialized system, which the United States federal court system already grants Article III judges. *Id.* at 5–6.

115. *Id.* at 4.

separated from other areas of law and still foster sufficient litigation.¹¹⁶ In considering the need for a specialized court, Zimmer suggests considering whether there is an institutional structure that could be adjusted prior to adding a court—specifically, whether or not a federal agency would be more equipped to resolve the issues in a less formal way.¹¹⁷

Specialized tribunals should have total control over the subject matter placed in their jurisdiction, along with authority to adjudicate all issues involved in cases before their tribunal in order to prevent forum shopping.¹¹⁸ But, the jurisdiction of the specialized tribunal should not be so narrow as to make the cases before the court become mechanical, leading to stagnation of the field and the judges' legal minds, as well as, leaving the court open to capture—Zimmer suggests that a specialized tribunal should have jurisdiction over at least two distinct areas of law to sufficiently widen its jurisdiction.¹¹⁹ Another way Zimmer suggests preventing isolation of judges from mainstream legal thought, other than broadening jurisdiction of the tribunal to more than one field, is to have the judges occasionally sit on generalist courts.¹²⁰

To promote access to a new, specialized tribunal when its jurisdiction is taken from widely distributed generalist courts, Zimmer suggests moving the court to a central location in a populated area.¹²¹ But, he also recommends considering a roving location, so that the court sits in different locations throughout the country to increase access to less well-funded litigants.¹²² Zimmer is further concerned over the potential reduction in a judge's status if appointed to a specialized court, which he believes typically has a reduced reputational status, and thus suggests the specialized judges should have the same trappings of office as their generalist peers, as well as, similar resources to perform their job.¹²³

116. *Id.* at 5. Zimmer singles out those areas of law based on highly technical fact disputes that come from the scientific field.

117. *Id.* at 6.

118. *Id.* at 5.

119. *Id.*

120. *Id.* at 6. To further prevent capture, Zimmer suggests that judges of the court sit in rotating panels. *Id.*

121. *Id.* at 7.

122. *Id.*

123. *Id.* at 6. Zimmer does distinguish between what he considers especially important specialized courts and other, lesser categories of specialized judges who should be set equal to generalist judge peers. *Id.* He points out the Federal Circuit as an important specialized court that has the

Zimmer considers where in the legal field's overall hierarchy a specialized court should be added. He suggests that specialization is best at the trial level when the field of law deals with a complex subject matter that requires specialized expertise, so that at the first-instance judges have the requisite subject-matter expertise and are capable of analyzing technical matters.¹²⁴ That way the specialist judges are also cognizant of review on appeal, making them less vulnerable to capture.¹²⁵ However, he suggests that specialization should occur at the appellate level when the law itself is complex and the goal is to achieve a stable and uniform body of law.¹²⁶ He views as an added benefit to specialization at the appellate level that doctrinal innovation can be added into the field.¹²⁷ The negative effects theorized to result from specialization can thus be mitigated by careful consideration of the court system.

B. Arguments Against Specialization Skepticism

The theoretical skepticism towards specialization is at odds with how the American court system works in practice. As Lawrence Baum points out in his call for more people to run empirical studies on the effect of judicial specialization on judges' decision-making, it is a misconception about how the judicial system works to think of the American court system as one filled with generalists,¹²⁸ as many judges are already specialized in some way.¹²⁹ Baum was writing in response to studies carried out on generalist and bankruptcy judges' decision-making process that found generalist judges relied heavily on intuitive thinking as opposed to deliberative thinking, which can lead to faulty judgement.¹³⁰ The study also found that bankruptcy judges, who used intuitive thinking too, took additional steps at other parts of the decision-making process that disregarded considerations that detracted from the quality of their judgments.¹³¹ This left open the possibility that

same constitutional guarantees as generalist federal judges as an example of granting equal status. *Id.*

124. *Id.* at 6–7.

125. *Id.* at 7. Zimmer does consider this review to be done by a generalist court. *Id.*

126. *Id.* at 7.

127. *Id.*

128. Lawrence Baum, *Probing the Effects of Judicial Specialization*, 58 DUKE L. J. 1667, 1667 (2009).

129. *Id.* at 1673–74.

130. *Id.* at 1668.

131. *Id.* The studies Baum is discussing also analyzed ALJs, but not in context of their specific areas of specialization, as was done with the group of

specialization improves the process by which a judge makes a decision,¹³² which links to the three virtues of specialization often touted by its proponents—uniformity, expertise, and efficiency.¹³³

While Baum allows that efficiency is a result of specialization developed by the repetition of tasks that allows for the formation of a routine, he views expertise as an attribute that implies a change to an end result.¹³⁴ It is generally assumed that the change to expertise creates better quality decisions—but what is considered a better quality decision is debatable.¹³⁵ Baum raises concerns over specialization—which might not outweigh its positive effects—noting that empirical evidence of the effect, positive or negative, that specialization can have on judges is lacking.¹³⁶ However, Baum does note one of the exceptions to this is specialization in patent law, as specialization at the Federal Circuit has been studied considerably.¹³⁷

C. The Specialization Already in Place

Patent law is already one of the main areas in the American legal system where a specialization experiment has been tried at the appellate level through the creation of the Federal Circuit.¹³⁸ While some issues with the execution of the law by the Federal Circuit is what led to renewed questions on how to fix the patent system, overall the court is viewed as a success.¹³⁹ Rochelle Cooper Dreyfuss details the specific issues that resulted from the creation of the Federal Circuit, but she considers any issues to be minimal and the Federal Circuit to be a successful experiment overall.¹⁴⁰ The solutions she offers are only improvements to the system.¹⁴¹

bankruptcy judges. *Id.* at 1669–70. It found that the ALJ results were comparable to the generalist judges. *Id.* at 1669.

132. *Id.* at 1668.

133. *Id.* at 1675. Baum does not deal with the uniformity issue, which he sees as being borne out of fewer judges deciding issues, as opposed to changes wrought by having particular judges focus on a narrower set of issues, the effect of which he is discussing. *Id.*

134. *Id.* at 1676.

135. *Id.* For example, is it about the law being more accurately applied to the facts of a case or about making better public policy? *Id.*

136. *Id.* at 1680.

137. *Id.* at 1681.

138. Rochelle Cooper Dreyfuss, *The Federal Circuit: A Continuing Experiment Specialization*, 54 CASE W. RES. L. REV. 769, 770 (2004).

139. *Id.*

140. *Id.* at 800–01.

141. *Id.*

The issues she identified as coming from judicial specialization are the Federal Circuit's failure to describe what the law is in enough detail to guide trial tribunals. Specifically, her concerns related to: the Federal Circuit's frequent use of nonprecedential decisions; the problem of internal inconsistency between Federal Circuit panels; how the Federal Circuit seems to disregard extra-judicial material related to empirical social science evidence; and the levels of deference the Federal Circuit uses to review decisions interfering with the efficiency of adjudication, like *de novo* review of claim construction from district courts.¹⁴² Without drawing conclusions on whether these issues are a serious problem for the Federal Circuit, as when it comes to answering critics of specialized courts, even the idea that the court is not working needs to be addressed,¹⁴³ Dreyfuss offers possible solutions: open the jurisdiction of the court to other related fields, giving it concurrent authority with other appellate courts;¹⁴⁴ increase the PTO's law-making authority to increase the level of deference the Federal Circuit awards it; require greater use of the designation practice of the judges on the Federal Circuit to increase the array of experience Federal Circuit panelists get; fill vacancies on the court by elevating appointees from

142. *Id.* at 773–85. Dreyfuss also raises the general concern related to specialization that the Federal Circuit would lack external consistency with other tribunals in other areas of law. *Id.* at 778. Dreyfuss identifies some empirical evidence to go with these claims, but in other places supports the issues only with anecdotal evidence. *Id.* at 769. To discuss the output of nonprecedential decisions, internal inconsistency, and external inconsistency she frames the issues with data from William M. Landes et al., *Judicial Influence: A Citation Analysis of Federal Courts of Appeals Judges*, 27 J. LEGAL STUD. 271 (1998). Dreyfuss, *supra* note 138, at 774 n.17, 776 n.25, 779 n.37. However, for looking at how the Federal Circuit is impacted by extra-judicial material she notes that such a study does not exist but uses Craig Nard's *Toward a Curious Approach to Obeisance: The Role of Scholarship in Federal Circuit Patent Law Jurisprudence*, 39 HOUS. L. REV. 667 (2002), which counts the number of secondary sources cited by the Federal Circuit and compares it to the number of secondary sources cited by the Ninth Circuit in cases concerning trademark and copyright law. Dreyfuss, *supra* note 138, at 781 n.43. To discuss the issues with the process the Federal Circuit uses to review decisions, Dreyfuss relies on anecdotal evidence concerning the problems that arise from differing level of deference and scrutiny. *Id.* at 784–86.

143. Dreyfuss, *supra* note 138, at 800–01.

144. *Id.* at 786. In discussing other areas of law that could be added to the Federal Circuit's docket, Dreyfuss also discusses choice of law rules that would bind the court to both procedural and substantive laws of other jurisdictions, which would force the court to grapple with mainstream law. *Id.* at 788–91.

elsewhere on the federal bench to gain insight on innovation law and how trials work;¹⁴⁵ and change venue laws.¹⁴⁶

In discussing her proposed changes to venue, Dreyfuss identifies where most of the other issues with the Federal Circuit come from—mistakes in the institutional design implemented by Congress that created a specialized system to increase judicial expertise at the appellate level while technical issues in patent law arise as factual considerations at the trial level.¹⁴⁷ As such, specialization at the appellate level seems to waste the substantive technical expertise that it is meant to foster; Dreyfuss points out that Congress may have been better served to create a specialized trial court for patent law in the first place.¹⁴⁸ She considers that something like a specialized trial court should still be added to the system, but if this dual specialization would remove patent law too far from the mainstream, she suggests changing venue laws so that only one court in a circuit or certain judges in specific districts hear patent cases.¹⁴⁹

D. What Commentators Have Suggested

As indicated by the various authors, while the creation of a specialized appeals court for patent law has generally proven to be a success, the lack of specialization at the trial level wastes many of the benefits that go along with a specialized legal field and that are particularly relevant to patent law. When looking at the patent system specifically, several commentators have made suggestions to fix trial level adjudication.

Dreyfuss starts by suggesting a wholesale change to create a specialized trial court as well as other reforms.¹⁵⁰ These alternative ideas include giving courts of general jurisdiction power over specialized areas of law—this looks like designating one court in each circuit with patent jurisdiction, thus concentrating patent jurisdiction in twelve courts that could each develop an expertise in patent law while still maintaining

145. *Id.* at 797.

146. *Id.* at 797–800.

147. *Id.* at 797.

148. *Id.* at 797–98.

149. *Id.* at 798–99. In another article written prior to the implementation of the Patent Pilot Program, Dreyfuss notes that even if this suggestion seems to be a step too far, the relationship between the Federal Circuit and the district courts could be repaired by reconsidering the standard of deference applied in appellate review. Rochelle Cooper Dreyfuss, *In Search of Institutional Identity: The Federal Circuit Comes of Age*, 23 BERKELEY TECH. L.J. 787, 806 (2008) [hereinafter Dreyfuss, *In Search of Institutional Identity*].

150. Dreyfuss, *supra* note 138, at 798.

generalist status.¹⁵¹ Within these twelve courts, she also suggests choosing only one or a small group of judges on the court to hear patent cases.¹⁵² This would further concentrate jurisdiction in a few judges to build expertise, as well as, build an interchange of ideas with the Federal Circuit that Dreyfuss views as conducive to improving the administration of the law.¹⁵³

Stiernberg, who raised the idea that without proper technical backgrounds in the judiciary technical decisions may not be legitimate, does not go as far in his suggestions for reform.¹⁵⁴ He sees a specialized trial court made up of judges with all the requisite scientific backgrounds to hear any case that comes before the court as impractical.¹⁵⁵ He does suggest that a specialized trial court with nonexpert judges who rely on expert support, similar to several European models, could overcome the system's current deficiencies.¹⁵⁶ He also lists several other less drastic ways to support the judiciary on technical matters, like obtaining PTO opinions on claim construction, requiring patents to be drafted in normal language, allowing for interlocutory appeals on claim construction, or awarding more deference

151. *Id.* at 798–99.

152. *Id.* at 799.

153. *Id.* at 800. The latter suggestion would not be much more of a step from what the Patent Pilot Program already creates, other than the voluntary nature of the current program. To achieve Dreyfuss' suggested result, the designated districts could acquire exclusive patent jurisdiction among trial courts, and then the designated judges on each court could gain exclusive jurisdiction over cases filed, instead of relying on the cases to be voluntarily transferred. *Id.* at 799. Indeed, Dreyfuss points out that, even in 2004, prior to the institution of the pilot program, her suggestion is really just a tweak of existing venue laws and matches what litigants already try to do. *Id.* Patent cases were not brought uniformly across the country but in a few select districts that hear the majority of cases and judges within those districts seemingly have acquired expertise out of it. *Id.* at 799–800 (citing Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. REV. 889, 903–4, 908–16 (2001)). The district courts would not be as regionally diverse as Dreyfuss' suggestion to pull one court from each circuit. This would also leave out the patent heavy jurisdiction of Delaware. But, it would have the added benefit that these jurisdictions volunteered in the first place, thus evidencing the desire to seek out patent litigation overall. This may be the easiest step to take in creating patent exclusive jurisdictions among trial courts, considering what Congress has already taken steps to do.

154. Stiernberg, *supra* note 54, at 297.

155. *Id.* at 297–98.

156. *Id.* at 297.

to district court decisions.¹⁵⁷ He notes that the earlier bill for the Patent Pilot Program that provided funds for technically trained law clerks or further judicial education would have helped address the lack of expertise, and sees providing education for judges as another possible step towards addressing epistemic legitimacy issues.¹⁵⁸

Allison Orr Larsen provides two alternatives to increasing expertise at the trial court level.¹⁵⁹ Building on the idea that the technological revolution is providing another way to supply information and that the Supreme Court already uses *amicus* briefs, although sometime of questionable reliability, she suggests a clearinghouse-type institution outside the adversarial process for *amicus* briefs that would supply outside expertise with more accuracy and objectivity.¹⁶⁰ She specifically cites the British court system's use of a nonprofit organization, P.R.I.M.E. Finance, to help nonspecialized judges with highly complicated financial cases after the 2008 crisis. The organization "maintains a database of relevant publications and routinely provides technical training, support, and a ready pool of expert witnesses for the courts" to act as a "one-stop access [point] to the best collective knowledge of law and market practice regarding derivatives and other complex financial products" that channels expertise to judges from outside the adversarial set up of the courts.¹⁶¹ As an alternative, Larson also suggests the possibility of quasi-specializing district court judges but in a different model from the Patent Pilot Program.¹⁶² Also drawing from the United Kingdom reforms for handling complex financial cases, she suggests forming a pool of district court judges with prior patent experience who could already be considered experts in the field and then allowing parties in litigation to jointly elect to select from this list of judges to oversee a trial.¹⁶³ These judges can then be continually

157. *Id.* at 299. Whether any of these last three actually answer Stiernberg's complaint or are just reforms that are suggested by others is unclear. *Id.*

158. *Id.* at 298.

159. Allison Orr Larsen, *Judicial Fact-Finding in an Age of Rapid Change: Creative Reforms from Abroad*, 130 HARV. L. REV. F. 316, 317 (2017).

160. *Id.* at 317, 319–20.

161. *Id.* at 318–19 (quoting Gerard J. Meijer & Camilla M.L. Perera-de Wit, *P.R.I.M.E. Finance: A New Dispute Resolution Facility for Conflicts Relating to Complex Financial Products*, 14 BUS. L. INT'L 153, 157 (2013)).

162. *Id.* at 320.

163. *Id.* at 321. In 2015, the government of the United Kingdom formed a list of twelve judges who had dealt with "financial claims of £50 million or more, or cases that raise issues concerning the domestic and international financial markets." *Id.* at 320–21 (quoting *History, CTS. & TRIBUNALS JUDICIARY*, <https://www.judiciary.gov.uk/you-and-the-judiciary/going-to-court/high-court/financial-list/history/> [https://perma.cc/CUR2-PWLE]

educated on the ins and outs of patent law, further developing their expertise in the specialized area without giving up their generalist status.¹⁶⁴

Judge James F. Holderman of the Northern District of Illinois acknowledges that patent cases are more fit for the specialized judge to hear than the generalist one, noting that the suggestion to create a specialist within a generalist is not enough, and instead advocates for a specialized patent court.¹⁶⁵ However, he suggests not the creation of a new court, but instead endorses the idea of expanding the jurisdiction of the U.S. Court of International Trade to hear all patent trial cases, at least concurrently with district courts.¹⁶⁶ He reasons that the Court of International Trade is an Article III court; has nationwide jurisdiction; is already subject to review by the Federal Circuit; sits all over the country; and would have higher exposure to patent litigation, allowing its judges to develop expertise while also maintaining their docket in international trade law.¹⁶⁷

E. Effects to Consider

There are some possible effects of specialization to consider. Lawrence Baum proposes several effects, both positive and negative, that specialization can have on judges.¹⁶⁸ As discussed above, the results of the study Baum analyzed found a change in the decision-making

(last visited Mar. 15, 2018)). Parties jointly ask for their cases to be heard by a judge off of the list and the Chancellor of the High Court and the Judge in Charge of the Commercial Court then appoint one to the case. *Id.* at 321. From there, the normal appellate process applies. *Id.* The judges elected to the list were then given continual education in this specialized area. *Id.* For patent litigation here, this list could include those top fifteen judges from Shartzer's study.

164. *Id.* at 321. This is supported by Shartzer's work showing that the fifteen district court judges who have seen the most patent cases have developed expertise between them and the Federal Circuit that results in their cases being overturned less. Shartzer, *supra* note 10, at 231. As Larson notes, when "a judge gets up to speed on complex technical issues like these, it seems a shame to just let that knowledge go to waste." Larson, *supra* note 159, at 321.

165. James F. Holderman, *Judicial Patent Specialization: A View from the Trial Bench*, 2002 U. ILL. J.L. TECH. & POL'Y 425, 430–31 (2002). He specifically lists the ideas of appointing expert judges, designating a single judge in each district court to hear all patent cases, using more special masters to construe patent claims, and using educated juries with technical qualifications as suggestions that do not go far enough in reforming the patent litigation system. *Id.* at 430.

166. *Id.* at 431.

167. *Id.*

168. Baum, *supra* note 128, at 1667.

process of specialized bankruptcy judges that correlated with improved positive effects on correcting intuitive decision-making.¹⁶⁹ However, the concerns over specialization he raises are somewhat different from those repeated elsewhere: assertiveness, insularity, and stereotyping.¹⁷⁰ Insularity, which he associates with the idea that the court is more open to capture by interest groups because of its narrow purview, is a common theme in the debate over specialization.¹⁷¹ But, he also raises the ideas of assertiveness, where judges who view themselves as experts are less likely to be deferential to both administrative bodies or superior courts filled with generalist judges, as well as, stereotyping, where judges repeatedly hearing certain fact patterns will simply treat current cases like past cases.¹⁷²

Mark A. Lemley, Su Li, and Jennifer M. Urban additionally found a less reported side effect of specialization that relates particularly to patent law when the authors performed a study to test the result of patent experience among judges based on something other than reversal rate.¹⁷³ The authors sought to answer the question of how specialization affects a judge's decision-making process in ruling on a case and found that specialization appears to impact the substance of decisions.¹⁷⁴ Across all districts, judges, technology areas, and time studied, judges who hear more patent cases are less likely to find a patent infringed.¹⁷⁵ The number of patent cases a judge hears does not have a statistically significant relationship to rulings about invalidity.¹⁷⁶ The authors speculate that the finding is not due to an overall increase in confidence on the part of judges with more patent experience—indeed, the increase in finding noninfringement with increased patent experience occurs quickly, with a judge needing to hear less than 0.2 prior patent cases per year¹⁷⁷—as the judges do not become any more likely to second-

169. *Id.* at 1668.

170. *Id.* at 1677.

171. *Id.* at 1677–78.

172. *Id.* While Baum initially categorizes these three possible effects as negative, he does go on to note that effects of judicial assertiveness and influence groups could improve public policy. *Id.* at 1680.

173. Lemley et al., *supra* note 91, at 1124–25.

174. *Id.* at 1124.

175. *Id.* at 1151. The authors particularly highlight this finding, as it is the one that holds across variables studied. *Id.* at 1155.

176. *Id.* at 1140.

177. *Id.* at 1143, 1143 fig.2. The authors note that this would amount to less than one patent ruling over a three-year period, with an 8 percent increase in likelihood of finding noninfringement taking place by the 0.2 prior patent case per year mark before leveling off. *Id.*

guess the PTO on findings of validity.¹⁷⁸ Instead, the authors posit that judges who see more patent cases are more likely to find that patentees overclaim their patent rights.¹⁷⁹ Alternatively, it could be that finding noninfringement is easier than holding a patent invalid because it is less likely to require a trial or be overturned by the Federal Circuit.¹⁸⁰ While both of those suggestions are merely speculation, the results do show that specialization of judges through experience—even relatively little experience—has an unintended substantive effect on judicial decisions.¹⁸¹

III. RECOMMENDATIONS

A. *What Should Be Considered*

Lemley, Li, and Urban used their finding that increased exposure to patent litigation had a significant affect on the substances of rulings to raise the question of what is a “good” result for specialization.¹⁸² If one of the proposed benefits of specialization is that it should improve the quality of decisions, Chief Judge Wood, Dreyfuss, Stiernberg, and Baum all ask what are better-quality decisions in patent law? And, how is that measured? Claim construction reversal rates have become a metric for this, but is it the right one?

Shartzter’s study found that district court judges with the most appeals to the Federal Circuit are reversed less, indicating that experience at least teaches the judges to find what the Federal Circuit believes to be better answers.¹⁸³ But Stiernberg raises the question of whether it is really better decision-making when a nontechnically trained district court judge makes a mistake that a nonexpert appellate court judge does not catch.¹⁸⁴ Baum notes two alternative meanings of the right decision: (1) properly applying facts to law, which is what Stiernberg argues may not be possible without technical expertise, or (2) making the best decision for public policy.¹⁸⁵ Chief Judge Wood agrees with Dreyfuss’s broader idea that the “correct decision” by the Federal Circuit is law that is “responsive to the philosophy of the Patent Act, to national competition policies, and to the needs of

178. *Id.* at 1151.

179. *Id.* The authors note that this same logic is also supported by the fact that a patent troll is less likely to win in district court. *Id.* at 1151–52.

180. *Id.* at 1152.

181. *Id.* at 1146–47.

182. *Id.* at 1152.

183. Shartzter, *supra* note 10, at 231.

184. Stiernberg, *supra* note 54, at 299.

185. Baum, *supra* note 128, at 1676.

researchers and technology users.”¹⁸⁶ But to talk about quality of decisions, Chief Judge Wood refers to the more narrow congressional belief that specialization will lead to better decisions.¹⁸⁷

Empirical quality metrics remain imperfect measurements. When discussing specialization through the lens of improved decision quality, one first needs to define what is meant by quality, how it is measured, and the assumptions made for that assessment. For example, for the Patent Pilot Program to use claim construction reversal rates to determine whether judges make the right decision assumes that the Federal Circuit reaches the correct result. In searches for metrics to determine the effects of isolation, experiments indicate specialization does have an affect on the decision-making process of the judge¹⁸⁸ and the substantive ruling.¹⁸⁹ But, whether either of those experiments show a result of better decision-making is another matter—and, as Lemley, Li, and Urban point out, the answer a person gives will probably depend on how they are affected by the trend in the substantive change.¹⁹⁰

It needs to be recognized that the stated objectives for improvement that will result from specialization need to be reoriented. Claim construction is not an accurate measuring tool for the idea of correct decisions. The accuracy of decisions in applying facts to law and the idea of precision that encompasses less reversal and more certainty should be addressed, but when trying to analyze accuracy and

186. Wood, *supra* note 93, at 3 (quoting Dreyfuss, *In Search of Institutional Identity*, *supra* note 149, at 796). Dreyfuss notes that the continuing issue with the Federal Circuit revolves around the idea that their decisions are not accurate, in that the court is “simply not considering whether the law is developing in a manner that reflects policies that meet the needs of the creative sector and further federal interests in promoting technological progress,” or is weighing accuracy against precision and deciding to stick with predictability. Dreyfuss, *In Search of Institutional Identity*, *supra* note 149, at 800.

187. Wood, *supra* note 93, at 3. Dreyfuss breaks better down into four different forms. Dreyfuss, *In Search of Institutional Identity*, *supra* note 149, at 796. In creating the Federal Circuit, Congress focused on the ideas of precision (that decisions would be replicable, leading to more predictability) and uniformity, which Dreyfuss believes the court has mostly achieved. *Id.* However, this may have come at the expense of the other two forms: accuracy, as in a decision in line with public policy; and quality, which depends on “law that is cohesive in that the elements work together to further overall policies, and decisions that are explicated in a manner that makes the policy goals the court understands the law to be achieving both transparent and persuasive.” *Id.*

188. Baum, *supra* note 128, at 1667, 1681.

189. Lemley et al., *supra* note 91, at 1151.

190. *Id.* at 1152. The authors do not make a judgement call on whether this makes decisions more correct, they just note the change in behavior by the judiciary. *Id.* at 1155. Neither does Baum, *supra* note 128, at 1684.

precession, substantive areas of patent law apart from claim construction need to be considered. Plus, there are other features to prioritize when building a litigation system. The focus should thus be shifted to a more expansive review of what would be considered a success if improved upon. This focus of whether specialization is achieving its goals should change to include adjustments that can be measured—like improvements to judicial efficiency that reduces time and cost of litigation, as well as, an attempt to combat forum shopping.

B. What Patent Tribunals Should Look Like Going Forward

Multiple authors noted that the Patent Pilot Program seems to be an extension of what was already going on in patent litigation, with certain districts and then certain judges within those districts hearing a higher percentage of the patent cases filed.¹⁹¹ But as Becker argues, the Patent Pilot Program does not go far enough.¹⁹² Instead of using a band-aid on the court structure that was already formed, Congress should act to create a patent law court system that builds a structure that matches the benefits the data collected on specialization support. This includes the recognition that the benefit of specialization in a technical field with complicated, fact-specific litigation occurs at the trial level.

The trial court system should be structured so that patent litigation has its own court. Placing all patent litigation in one court will reduce the forum shopping phenomenon that plagues several districts in the current system.¹⁹³ However, since placing the court in only one place may strain accessibility for some parties, Congress could consider making it a roving court, so that it could go to the litigants instead of the litigants having to go to it. The number of judges on the court would not need to be fixed but could vary to match the docket load of the jurisdiction. Removing patent cases, known to be long and complex, will lighten the dockets of other district courts, which could prove especially helpful in places like the Eastern District of Texas, the District of Delaware, and the districts in California.

Creating a singular court with exclusive jurisdiction over all district court patent litigation¹⁹⁴ will also still line up with the assumption Congress already adopted—that more experience handling patent cases will have beneficial results. While the research above shows that whether those results produce better decisions is ambiguous, the research does show that judges with more experience become more

191. See Lemley et al., *supra* note 91, at 1134; see also Dreyfuss, *supra* note 138, at 799–800.

192. Becker, *supra* note 83, at 1608–09.

193. See *id.* at 1628–30.

194. The issue concerning split jurisdiction between the PTO and district courts on the issue of validity is beyond the scope of this Note.

efficient in handling patent litigation. Having a specialized court with judges who only work on patent cases will allow those judges to become more familiar with the procedural intricacies of patent law and perfect how to manage cases, decreasing litigation time and costs. Further, experience dealing with the Federal Circuit does seem to implicate a reduction in reversal rates, which could become the rule for all trial judges on a singular patent trial court instead of applicable to only those top fifteen judges scattered across the country who currently hear the most patent cases.¹⁹⁵ In addition to giving the court exclusive jurisdiction over patent trials, the court should also have jurisdiction over the other issues in the case, similar to the Federal Circuit, so that the benefits of expedited litigation time is not negated because parties need to argue non-patent issues related to the same facts in a different forum.

As for the judges who preside in this new trial court, the benefit of requiring technical backgrounds does not outweigh the burden of reducing the pool of qualified judges who could be appointed to the court. At most, those judges who are appointed should be able to pass the patent bar as required of the lawyers in the field. That does not mean that those judges need the same perquisite education that the lawyers need to sit for the patent bar. The judges just need to pass the test, which is not based on substantive scientific material but is a test on the Manual of Patent Examining Procedure that practitioners follow to prepare and prosecute patents.

Those judges also need specific resources allotted to them once they are appointed to the court. The judges should have the funds to hire technically trained law clerks that can sit for the patent bar. This supplies the judges with technical support that is not coming from an adversarial perspective. Further, the rules of the court should encourage the use of resources already in the Federal Rules of Civil Procedure that allow judges to appoint third-party experts for those cases that, at the judge's discretion, require a level of expertise beyond what the judge and clerks can handle. In fact, the clearing house mechanism discussed above in the British court system for complex financial cases could be

195. The finding by Shartzter on this point is interesting, as the reduction in reversal rates between the most proficient judges in patent litigation indicates that those trial judges learn what the Federal Circuit will accept with repeated cases brought before it. If this were the trial judges just getting to the Federal Circuit's correct answer then the reversal rate would presumably be more panel dependent, especially in those areas where the Federal Circuit has different strains of case law. This byplay between repeat trial judges and Federal Circuit could be increasing the trust between the Federal Circuit 'technocrats' and the trial court judges. Thus, moving all litigation into the realm of trial judges who are considered experts and who would deal with the Federal Circuit on a regular basis could increase deference to trial court decisions more than an actual change in standards of review that appellate judges can write around would.

warranted, even with the current mechanism to pull in court appointed experts. Such a clearinghouse could be organized by the ABA or PTO as a third-party arbiter that coagulates expertise across every scientific field and niche areas of study to readily supply judges with a trustable source for scientific background that judges can use as another form of technical support. In addition to funds or other structural mechanisms for technical support, the setup of the new trial court should require that the appointed judges take part in regular continued education that is tailored to patent litigation.

CONCLUSION

When the Patent Pilot Program's ten-year trial period expires in 2021, Congress should not extend the current program. Instead, Congress should take more drastic steps to create real change in the patent trial system that address current identifiable and fixable problems. This includes creating a separate trial court for patent litigation with specialized judges appointed to it and supplying those judges with the necessary resources to compensate for any lack of technical experience, like funding for technically trained law clerks and mandatory continuing education on patent litigation for the judges.

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