

TEXAS INTELLECTUAL PROPERTY LAW JOURNAL

INTELLECTUAL PROPERTY LAW SECTION OF THE STATE BAR OF TEXAS
THE UNIVERSITY OF TEXAS SCHOOL OF LAW

THE PATENT TRIAL AND APPEAL BOARD'S
EVOLVING IMPACT ON CLAIM CONSTRUCTION

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The Patent Trial and Appeal Board’s Evolving Impact on Claim Construction

Timothy R. Holbrook*

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I. Introduction

Claim construction – the process by which the meanings of terms in a patent claim are determined – is central to nearly every patent case.¹ Both validity and in-

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¹ KIMBERLY A. MOORE, TIMOTHY R. HOLBROOK, & JOHN F. MURPHY, PATENT LITIGATION AND

fringement hinge on the meaning of the patent claims.² The development of the various doctrines governing claim construction generally has been the province of the courts. Although examiners, formerly the Board of Patent Appeals and Interferences (BPAI), and now the Patent Trial and Appeal Board (PTAB) at the U.S. Patent and Trademark Office (USPTO) often construe claims, they have had little impact on the development of claim construction doctrine more broadly. There are reasons for this lack of impact. Before the advent of quasi-adversarial procedures at the USPTO, examination tended to emphasize explicit claim construction less, focusing more on the give and take between the examiner and the applicant.³ Unlike the district courts, the USPTO also only deals with validity and not infringement, so the agency only confronts part of the claim scope issue. The USPTO also applies a unique claim construction standard for patent applications and extant patents, the “broadest reasonable interpretation” (BRI) standard.⁴ The rationale for this standard is that the USPTO is assessing the outer reaches of a patent claim to determine its validity, and the applicant is free to amend the claim to narrow its scope in response. This standard differs from that used in the district courts during litigation proceedings.

This situation seems poised to change. Because the relatively-new *inter partes* review (IPR) and post grant review (PGR) procedures are designed in ways to act as a cheaper alternative to district court litigation as to validity, these proceedings are garnering more attention and influence. The PTAB engages in far more formal claim construction than examiners had in the past. Recent decisions suggest that it is beginning to resist a key aspect of claim construction: prosecution disclaimer.⁵ If the PTAB begins to reject such disclaimers, then the district courts may come to view the record at the USPTO far differently regarding its claim construction. Moreover, the PTAB’s formal constructions potentially could serve as issue preclusion in related district court litigation, even with the BRI standard.

This Article explores the potential impact the PTAB could have on broader claim construction doctrine. It starts by offering an overview of claim construction in the courts and in the USPTO. It then considers the potential unintended consequence of a particular Federal Circuit decision, *Marine Polymer*. *Marine Polymer* decided a seemingly narrow question: whether the defense of intervening rights

STRATEGY 321 (West, 4th ed. 2013).

² *Id.*

³ *In re Cuozzo Speed Techs. LLC*, 793 F.3d 1297, 1300 (Fed. Cir. 2015) (Newman, J. dissenting from rehearing en banc) (“Specifically, we have long explained that the broadest reasonable interpretation standard is a useful tool, prior to patent issuance, for clarifying the metes and bounds of an invention during the back-and-forth between the applicant and examiner when claims are not yet in their final form.”); *In re Buszard*, 504 F.3d 1364, 1368 (Fed. Cir. 2007) (“In other words, unlike a district court in an infringement suit, there is no need for the Board [or this court] to engage in a complicated, in-depth claim construction analysis during patent prosecution.”).

⁴ *Cuozzo Speed Techs. LLC v. Lee*, No. 15-446, 2016 WL 3369425, at *10 (U.S. June 20, 2016).

⁵ See generally Todd R. Miller, *The ‘Doctrine of Prosecution Disclaimer’ in Construing Patent Claims*, 86 J. PAT. & TRADEMARK OFF. SOC’Y 931 (2004).

could be triggered only by a narrowing amendment at the USPTO or whether a disclaimer of claim scope could also create intervening rights. The court decided the former such that disclaimers of claim scope, absent an amendment, do not trigger intervening rights. A number of PTAB decisions have taken this holding more broadly, prohibiting parties in IPR proceedings from arguing for any disclaimer. Patent holders in this position can be in a bit of a bind because the PTAB has also been very reluctant to allow patent claim amendments during IPR proceedings. If the Federal Circuit agrees with the PTAB's approach, it could signal a waning of the use of prosecution disclaimer.

The PTAB's approach presents some interesting issues that the next part of the Article explores. It examines the difference between a formal claim construction by an examiner or the PTAB versus the seemingly implicit construction that is reflected in prosecution disclaimer doctrine. At times the Federal Circuit has noted it is not bound by USPTO constructions yet, in estoppel-like fashion, it does bind the patent holder to potentially narrowing arguments made during a USPTO proceeding. What really is the difference? And if the USPTO is increasingly performing formal claim construction, what role, if any, remains for prosecution disclaimer? The estoppel provisions, and collateral estoppel, may step in to eliminate the use of prosecution disclaimer, as we have previously seen in claim construction, at least for those patents that go through IPR proceedings.⁶

Finally, this Article explores the potential for issue preclusion to arise from PTAB claim constructions. The Supreme Court recently affirmed the use of BRI in IPR proceedings, which means the claim construction standard between PTAB post-issuance proceedings and district courts will continue to differ.⁷ Nevertheless, the potential for issue preclusion remains. The Supreme Court held, in *B & B Hardware, Inc. v. Hargis Industries, Inc.*, that a decision by the Trademark Trial and Appeal Board (TTAB) can preclude relitigation of the issue of likelihood of consumer confusion, even though that standard varies widely across the country.⁸ This Article considers the parallel situation of PTAB claim construction determinations in light of that Supreme Court precedent, concluding that issue preclusion very well may arise from PTAB claim construction determinations.

II. Claim Construction in the Courts and at the USPTO

Claim construction is the means by which a decision-maker—a court, examiner, or the PTAB—assesses the meaning and scope of the claims in a patent. This

⁶ An interesting empirical question is whether examiners in regular examination, reexamination, or reissuance proceedings are beginning to be more formal about their claim constructions in reaction to the more formal procedures used by the PTAB.

⁷ *Cuozzo*, 2016 WL 3369425, at *10.

⁸ 135 S.Ct. 1293 (2015); see *infra* notes 117-156 and accompanying text.

section explores the methodology and standards used by the courts and the USPTO in construing patent claims.

A. *Claim Construction in the Courts and the Phillips Hierarchy*

Claim construction is perhaps the single most important issue in patent litigation.⁹ It drives much of the argument in what have become known as *Markman* hearings in homage to the Supreme Court's decision giving judges, not juries, responsibility for interpreting a patent's claims.¹⁰ Claim construction, in theory, is relevant for both infringement and validity, and a court must interpret the claims as having the same scope for both inquiries. It is legal error to construe a claim one way for validity purposes and in a different way for infringement.

Unsurprisingly, the courts have produced a voluminous paper trail of judicial opinions interpreting patent claims. Commentators have also created a cottage industry of empirical and theoretical investigations into claim construction.¹¹ While one can question the consistency and predictability of claim construction within the courts, the methodology is well-established.

Patent claims are generally given their customary and ordinary meaning from the perspective of a person having ordinary skill in the art (PHOSITA) at issue.¹² When courts are construing the claims, in contrast to the USPTO, the goal is to 'seek out the correct construction—the construction that most accurately delineates the scope of the claimed invention.'¹³ The primary evidence used to construe a patent claim is the public record, known as the intrinsic evidence. This includes the patent claims, the patent specification, and the record before the USPTO of the prosecution of the patent application (known as the 'prosecution history'). Intrinsic

⁹ See Dan L. Burk & Mark A. Lemley, *Fence Posts or Sign Posts? Rethinking Patent Claim Construction*, 157 U. PA. L. REV. 1743, 1751 (2009) ("there is essentially always a dispute over the meaning of the patent claims.").

¹⁰ See *Markman v. Westview Instruments*, 517 U.S. 370 (1996).

¹¹ A very small sample includes: J. Jonas Anderson & Peter S. Menell, *Informal Deference: A Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108 Nw. U. L. Rev. 1 (2013); Burk & Lemley, *supra* note 9; Richard S. Gruner, *How High Is Too High?: Reflections on the Sources and Meaning of Claim Construction Reversal Rates at the Federal Circuit*, 43 LOY. L.A. L. REV. 981, 984 (2010); Jeffrey A. Lefstin, *Claim Construction, Appeal, and the Predictability of Interpretive Regimes*, 61 U. MIAMI L. REV. 1033 (2007); Kimberly A. Moore, *Markman Eight Years Later: Is Claim Construction More Predictable?*, 9 LEWIS & CLARK L. REV. 231 (2005); Kristen Osenga, *Linguistics and Patent Claim Construction*, 38 RUTGERS L.J. 61 (2006); David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223 (2008).

¹² See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) ("We have frequently stated that the words of a claim 'are generally given their ordinary and customary meaning. We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art. ") (citations omitted).

¹³ *PPC Broadband, Inc. v. Corning Optical Commc'ns RF, LLC*, 815 F.3d 734, 740 (Fed. Cir. 2016).

evidence is viewed as part of the purely legal aspect of claim construction, such that no deference is due a district court's evaluation of this record on appeal.¹⁴ A court may also rely on factual, extrinsic evidence such as treatises, other patents, dictionaries, and expert testimony.¹⁵

The starting point is, of course, the patent document itself. Most important are the claims in the patent, which serve to demarcate the scope of the patent holder's exclusive rights.¹⁶ The Federal Circuit has noted that a court should consider both the claims asserted in the case along with unasserted ones,¹⁷ as the language differences between them may shed light on the scope of the claims.¹⁸

In addition to the claims, the patent document also includes a description of the invention, known as the specification.¹⁹ The specification discloses and explains the claimed invention.²⁰ Because the patent is 'a fully integrated written instrument,'²¹ a patent's claims, 'must be read in view of the specification.'²² 'Thus, the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'²³ The patent applicant can act as her own lexicographer, using the specification to afford a term a unique, particular meaning.²⁴ A patent applicant can also disavow claim scope through representations made in the specification.²⁵ Such surrender can oper-

¹⁴ See *Teva Pharm. USA, Inc. v. Sandoz, Inc.* 135 S. Ct. 831, 841 (2015) ("As all parties agree, when the district court reviews only evidence intrinsic to the patent (the patent claims and specifications, along with the patent's prosecution history), the judge's determination will amount solely to a determination of law, and the Court of Appeals will review that construction *de novo*.").

¹⁵ *Id.*

¹⁶ See 35 U.S.C. § 112(b) (2013). See also Timothy R. Holbrook, *Patents, Presumptions, and Public Notice*, 86 IND. L.J. 779, 785 (2011) ("A claim acts as the metaphorical 'fence' that determines the scope of the patentee right.").

¹⁷ See *Phillips v. AWH Corp.* 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc) ("Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term.").

¹⁸ See *id.* ("Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.").

¹⁹ See 35 U.S.C. § 112(b). Technically, the claims are part of the specification. The convention is to discuss the specification as if it is different from the claims, even though this is inaccurate.

²⁰ 35 U.S.C. § 112(a) (requiring a written description of the invention and of how to make and use it).

²¹ *Markman v. Westview Instruments, Inc.* 52 F.3d 967, 978 (Fed. Cir. 1995) (en banc) *aff'd*, 517 U.S. 370 (1996).

²² *Id.* at 979.

²³ *Vitronics Corp. v. Conceptor, Inc.* 90 F.3d 1576, 1582 (Fed. Cir. 1996).

²⁴ See *id.* ("Although words in a claim are generally given their ordinary and customary meaning, a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history.").

²⁵ See *Hill-Rom Servs. Inc. v. Stryker Corp.* 755 F.3d 1367, 1371 (Fed. Cir. 2014) ("We depart from the plain and ordinary meaning of claim terms based on the specification in only two instances: lexicography and disavowal."); *SciMed Life Sys. Inc. v. Advanced Cardiovascular Sys. Inc.* 242 F.3d 1337, 1341 (Fed. Cir. 2001) ("Where the specification makes clear that the invention does not

ate in a manner akin to the way the prosecution history is used to narrow claim scope, although such surrender is not volitional and may arise for reasons unrelated to patentability.²⁶

Turning to the role of the prosecution history in claim construction, a court may also consider the prosecution history of the patent to inform its analysis.²⁷ The prosecution history, while important, is viewed as secondary to the specification and claims.²⁸ Nevertheless, it is part of the intrinsic evidence and is to be considered if available and in evidence.²⁹ Anything within the prosecution record is considered part of the intrinsic record, including other patents and prior art cited during the prosecution.³⁰ The prosecution history of patents related to the patent-at-issue may also be considered.³¹

include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.”). For a discussion of the evolution of this doctrine, see Timothy R. Holbrook, *Substantive Versus Process-Based Formalism in Claim Construction*, 9 LEWIS & CLARK L. REV. 123, 139-43 (2005).

²⁶ See Holbrook, *supra* note 25, at 142-44. Cf. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 30-31 (1997) (“In each of our cases cited by petitioner and by the dissent below, prosecution history estoppel was tied to amendments made to avoid the prior art, or otherwise to address a specific concern—such as obviousness—that arguably would have rendered the claimed subject matter unpatentable.”).

²⁷ See *Markman*, 52 F.3d at 980 (“[T]he court should also consider the patent’s prosecution history, if it is in evidence.”).

²⁸ See *Phillips*, 415 F.3d at 1317 (“[B]ecause the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.”).

²⁹ *Id.* (“Nonetheless, the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.”).

³⁰ See *Vitronics Corp.*, 90 F.3d at 1583 (“Included within an analysis of the file history may be an examination of the prior art cited therein.”).

³¹ See, e.g., *Regents of U. of Minnesota v. AGA Med. Corp.*, 717 F.3d 929, 942 (Fed. Cir. 2013) (“We have also held that a disclaimer made during the prosecution of a patent application may operate as a disclaimer with respect to later patents of the same family.”); *Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1401-02 (Fed. Cir. 2008). The claim language in the related applications must be similar to trigger disclaimer. *Regents of U. of Minnesota*, F.3d 929 at 943 (“Thus, our cases establish that the two patents must have the same or closely related claim limitation language. If the language of the later limitation is significantly different, the disclaimer will not apply.”). Courts have also relied upon the prosecution histories of related patent applications from foreign patent offices, though such records would be extrinsic evidence. See, e.g., *Tanabe Seiyaku Co. v. U.S. Int’l Trade Comm’n*, 109 F.3d 726, 733 (Fed. Cir. 1997) (“In the present case, the representations made to foreign patent offices are relevant to determine whether a person skilled in the art would consider butanone or other ketones to be interchangeable with acetone in Tanabe’s claimed N-alkylation reaction.”); *Caterpillar Tractor Co. v. Berco, S.P.A.*, 714 F.2d 1110, 1116 (Fed. Cir. 1983). See generally Timothy R. Holbrook, *Territoriality Waning? Patent Infringement for Offering in the United States to Sell an Invention Abroad*, 37 U.C. DAVIS L. REV. 701, 714-17 (2004) (discussing examples of use of foreign prosecution histories). But see, *Pfizer, Inc. v. Ranbaxy*

Generally, the use of the prosecution history is uncontroversial. The Supreme Court has long used the prosecution history to limit the scope of a patent,³² particularly with respect to equivalents available to a patent holder under the doctrine of prosecution history estoppel.³³ The Supreme Court has only applied the prosecution history in this limiting fashion in the presence of actual claim amendments.

The Federal Circuit takes a more capacious view of the use of prosecution history and has extended its relevance beyond the Supreme Court's applications. Under the Federal Circuit's jurisprudence, arguments made during the prosecution history alone can result in the surrender of certain equivalents.³⁴ Such argument-based surrender differs from the Supreme Court's approach in terms of prosecution history estoppel because courts 'do not presume a patentee's arguments to surrender an entire field of equivalents through simple arguments and explanations to the patent examiner.'³⁵ The Federal Circuit justifies the use of the prosecution history in this way on the basis of public notice: 'prosecution disclaimer promotes the public no-

Labs. Ltd. 457 F.3d 1284, 1290 (Fed. Cir. 2006) ("[T]he statements made during prosecution of foreign counterparts to the '893 patent are irrelevant to claim construction because they were made in response to patentability requirements unique to Danish and European law. ").

³² See *Schriber-Schroth Co. v. Cleveland Trust Co.* 311 U.S. 211, 220–221 (1940); *Goodyear Dental Vulcanite Co. v. Davis*, 102 U.S. 222, 227 (1880) ("We do not mean to be understood as asserting that any correspondence between the applicant for a patent and the Commissioner of Patents can be allowed to enlarge, diminish, or vary the language of a patent afterwards issued. Undoubtedly a patent, like any other written instrument, is to be interpreted by its own terms. But when a patent bears on its face a particular construction, inasmuch as the specification and claim are in the words of the patentee, it is reasonable to hold that such a construction may be confirmed by what the patentee said when he was making his application. ").

³³ See, e.g. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.* 535 U.S. 722, 733 (2002) ("Estoppel is a 'rule of patent construction' that ensures that claims are interpreted by reference to those 'that have been cancelled or rejected. '") (quoting *Schriber-Schroth Co. v. Cleveland Trust Co.* 311 U.S. 211, 220–221 (1940)); *Warner-Jenkinson*, 520 U.S. at 30 ("We can readily agree with petitioner that *Graver Tank* did not dispose of prosecution history estoppel as a legal limitation on the doctrine of equivalents."); see also *Omega Eng'g, Inc. v. Raytek Corp.* 334 F.3d 1314, 1323 (Fed. Cir. 2003) ("The doctrine of prosecution disclaimer is well established in Supreme Court precedent, precluding patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution. "). The doctrine of equivalents affords protection to a patent that does not literally cover a particular device but nevertheless is viewed as insubstantially different. See *Warner-Jenkinson*, 520 U.S. at 1054 ("An analysis of the role played by each element in the context of the specific patent claim will thus inform the inquiry as to whether a substitute element matches the function, way, and result of the claimed element, or whether the substitute element plays a role substantially different from the claimed element. "). See generally Timothy R. Holbrook, *Equivalency and Patent Law's Possession Paradox*, 23 HARV. J.L. & TECH. 1, 16 (2009) ("Specifically, if a limitation of the claim is not literally present in the accused device, there may yet be infringement if that component is considered equivalent to what was claimed. ").

³⁴ See *Deering Precision Instruments, L.L.C. v. Vector Distribution Sys. Inc.* 347 F.3d 1314, 1326 (Fed. Cir. 2003) ("To invoke argument-based estoppel, the prosecution history must evince a 'clear and unmistakable surrender of subject matter.'") (quoting *Eagle Comtronics, Inc. v. Arrow Commc'n. Labs. Inc.* 305 F.3d 1303, 1316 (Fed.Cir. 2002)).

³⁵ *Conoco, Inc. v. Energy & Envtl. Int'l, L.C.* 460 F.3d 1349, 1364 (Fed. Cir. 2006).

tice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution.³⁶

The Federal Circuit has dubbed the use of the prosecution history in this estoppel-like function 'prosecution disclaimer.'³⁷ The court has expressly drawn comparisons between prosecution history estoppel as a limit on the doctrine of equivalents and prosecution disclaimer as a limit on literal claim scope.³⁸ The disclaimer can arise even if the USPTO did not rely upon the representations.³⁹ The standard for surrender, though, is exacting.⁴⁰ Claim scope is only lost if there is a 'clear and unmistakable surrender.'⁴¹ If there is some ambiguity in the statement, then there will be no disclaimer.⁴² Any statements must be quite clear to trigger any sort of surrender.⁴³

The use of the prosecution history is not limited to the original prosecution before the USPTO. The Federal Circuit has held that such disclaimer can arise in subsequent proceedings at the USPTO, including reissuance,⁴⁴ ex parte reexamination,⁴⁵ inter partes reexamination,⁴⁶ and, seemingly, IPR⁴⁷ and PGR.⁴⁸

³⁶ *Omega Eng'g, Inc. v. Raytek Corp.* 334 F.3d 1314, 1324 (Fed. Cir. 2003).

³⁷ See Holbrook, *supra* note 16, at 137-39 (exploring the evolution of prosecution disclaimer doctrine).

³⁸ See *Trivascular, Inc. v. Samuels*, No. 2015-1631, 2016 WL 463539, at *4 (Fed. Cir. Feb. 5, 2016) ("The same general tenets that apply to prosecution history estoppel apply to prosecution history disclaimer."); *Alpex Computer Corp. v. Nintendo Co.* 102 F.3d 1214, 1221 (Fed. Cir. 1996) ("Just as prosecution history estoppel may act to estop an equivalence argument under the doctrine of equivalents, positions taken before the PTO may bar an inconsistent position on claim construction under § 112, ¶ 6.")

³⁹ See *Fenner Inv. Ltd. v. Celco P'ship*, 778 F.3d 1320, 1325 (Fed. Cir. 2015) ("However, the interested public has the right to rely on the inventor's statements made during prosecution, without attempting to decipher whether the examiner relied on them, or how much weight they were given.")

⁴⁰ See *Avid Tech., Inc. v. Harmonic, Inc.*, 812 F.3d 1040, 1045 (Fed. Cir. 2016) ("When the prosecution history is used solely to support a conclusion of patentee disclaimer, the standard for justifying the conclusion is a high one.")

⁴¹ *Omega Eng'g, Inc.* 334 F.3d at 1323 (disclaimer if "the patentee unequivocally imparted a novel meaning to those terms or expressly relinquished claim scope during prosecution.")

⁴² See *Cordis Corp. v. Medtronic AVE, Inc.* 339 F.3d 1352, 1359 (Fed. Cir. 2003) ("The statement is amenable to multiple reasonable interpretations and it therefore does not constitute a clear and unmistakable surrender.")

⁴³ See *Gammino v. Sprint Comm'ns Co. L.P.* 577 F. App'x 982, 989 (Fed. Cir. 2014) ("Gammino's repeated and unqualified statements that his claimed invention will block 'all international calls' extend beyond merely illuminating 'how the inventor understood the invention, Phillips, 415 F.3d at 1317, and provide an affirmative definition for the disputed claim terms."); *Golden Bridge Tech. Inc. v. Apple Inc.* 758 F.3d 1362, 1366 (Fed. Cir. 2014) ("However, this is not a typical IDS, and GBT did more than simply disclose potentially material prior art. It submitted its own stipulated construction of a claim term in the context of the particular patents being reexamined ('267 patent) and prosecuted ('427 patent). This is a clear and unmistakable assertion by the patentee to the PTO of the meaning and scope of the term preamble.")

⁴⁴ See *AstraZeneca UK Ltd. v. Watson Labs. Inc.* 905 F. Supp. 2d 589, 594 (D. Del. 2012) (explor-

With IPRs and potentially PGRs more closely paralleling district court litigation, the role of claim construction at the USPTO is becoming more formal. The administrative judges of the PTAB generally offer specific claim construction determinations in response to the briefing of the parties in a manner very similar to the results of *Markman* hearings in district court litigation. The next section explores the rules of claim construction at the USPTO.

B. USPTO's Claim Construction Methodology

In construing a patent, the USPTO generally looks to the claim language and the specification, the two most important considerations per *Phillips*. During the initial examination, there is no prosecution history, of course, but even in post-grant settings for unexpired patents, however, the USPTO typically does not rely on earlier prosecution history in performing claim construction.⁴⁹ There is no formal rule against consulting earlier prosecution histories, and the Federal Circuit has suggested such consideration may be appropriate.⁵⁰ The PTAB has occasionally used earlier

ing and rejecting disclaimer from reissuance); *Paradox Sec. Sys. Ltd. v. ADT Sec. Servs. Inc.* 710 F. Supp. 2d 590, 602 (E.D. Tex. 2008) (disclaimer during reissuance proceeding).

⁴⁵ See *Golden Bridge Tech.* 758 F.3d at 1366 (Fed. Cir. 2014) (disclaimer triggered by reexamination).

⁴⁶ See *Grober v. Mako Prods. Inc.* 686 F.3d 1335, 1341 (Fed. Cir. 2012) (“Statements made during reexamination can also be considered in accordance with this doctrine.”).

⁴⁷ *Samuels v. Trivascular Corp.* No. 13-CV-02261-EMC, 2015 WL 7015330, at *6 n.3 (N.D. Cal. Nov. 12, 2015) (“At least two judges in this District have noted that prosecution disclaimer has viability in IPR proceedings, even though an IPR is technically an adjudicative proceeding rather than an examination.”); *Evolutionary Intelligence, LLC v. Sprint Nextel Corp.* No. C-13-03587, 2014 WL 4802426, at *4 (N.D. Cal. Sept. 26, 2014) (“Statements made by Evolutionary Intelligence during the IPR could disclaim claim scope, aid the court in understanding the meaning of the terms, or otherwise affect the interpretation of key terms.”). Comments made by a patent holder during inter partes reexamination proceedings can limit claim scope. See *Grober v. Mako Prods.* 686 F.3d 1335, 1341 (Fed. Cir. 2012) (“When a patentee makes a ‘clear and unmistakable disavowal of scope during prosecution, a claim’s scope may be narrowed under the doctrine of prosecution disclaimer. Statements made during reexamination can also be considered in accordance with this doctrine. [T]he doctrine of prosecution disclaimer only applies to unambiguous disavowals.”); *Pragmatus AV. LLC v. Yahoo! Inc.* No. C-13-1176 EMC, 2014 WL 1922081, at *5 (N.D. Cal. May 13, 2014) (“The same should be true now that inter partes review, rather than inter partes reexamination, is in effect.”).

⁴⁸ There have been very few PGR proceedings, so there has yet to be occasion to assess whether disclaimer will arise. Given the similarity to IPR, however, one would expect it to apply to those proceedings as well.

⁴⁹ See 37 C.F.R. § 42.100(b) (2015) (“A claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.”). Note the conspicuous failure to mention earlier prosecution records. See, e.g., *Corning Optical Comms. RF, LLC v. PPC Broadband, Inc.* IPR2013-00342, 2014 WL 6680906, at *4 (Patent Tr. & App. Bd. Nov. 21, 2014) (discussing only claims and specification), *aff’d-in-part, vacated-in-part, and remanded* Nos. 2015-1361, 2015-1366, 2015-1368, 2015-1369, slip op. at 2 (Fed. Cir. Feb. 22, 2016).

⁵⁰ See *Tempo Lighting, Inc. v. Tivoli, LLC*, 742 F.3d 973, 978 (Fed. Cir. 2014) (“This court also observes that the PTO is under no obligation to accept a claim construction proffered as a prosecution

er prosecution records in claim construction.⁵¹ But, for the most part, the PTAB does not rely upon prosecution records in the same way that district courts do, and it has made clear that they are not obligated in any way to follow such disclaimers.⁵² This failure to consider routinely earlier prosecution files further distances the USPTO claim construction from that of the courts.

Another key difference between the way the courts and the USPTO perform claim construction is the USPTO's application of the BRI for patent applications and unexpired issued patents.⁵³ It uses this standard not only in the initial examination but also in various post-issuance proceedings.⁵⁴ This has been the governing standard at the USPTO for over a century.⁵⁵ The USPTO uses this approach because the agency's role is to explore the outer boundaries of a patent or patent application to see where it may transgress the prior art.⁵⁶ Giving it the broadest, yet importantly reasonable, interpretation means that it will run afoul of more prior art,

history disclaimer, which generally only binds the patent owner. However, in this instance, the PTO itself requested Tivoli rewrite the 'non-photoluminescent' limitation in positive terms. Tivoli complied, and then supplied clarification about the meaning of the 'inert to light' limitation."); *see also* Microsoft Corp. v. Proxyconn, Inc. 789 F.3d 1292, 1298 (Fed. Cir. 2015) ("The PTO should also consult the patent's prosecution history in proceedings in which the patent has been brought back to the agency for a second review.").

⁵¹ *See, e.g.* Apple, Inc. v. VirnetX Inc. IPR2014-00481, 2015 WL 5047986, at *6 (Patent Tr. & App. Bd. Aug. 24, 2015) (discussing, though rejecting, disclaimer arguments made by patent owner); Hulu, LLC. v. Intertainer, Inc. Appeal 2015-005565, 2015 WL 5734596, at *7 (Patent Tr. & App. Bd. September 29, 2015) (considering and rejecting prosecution disclaimer).

⁵² *See Apple*, 2015 WL 5047986 at *3 (noting 'the PTO is under no obligation to accept a claim construction proffered as a prosecution history disclaimer, which generally only binds the patent owner. ') (quoting *Tempo Lighting*, 742 F.3d at 978); *Hulu*, 2015 WL 5734596 at *7 ("Although the Office is under no obligation to accept a claim construction proffered as a prosecution history disclaimer, the prosecution history of the '592 patent does not limit the construction of the link program to a single link programFalse") (citation omitted).

⁵³ *See* 37 C.F.R. § 42.100(b); MPEP § 2111. It is possible for expired patents to be reviewed at the USPTO given that it could impact pre-expiration damages. If the patent has expired, the USPTO applies the *Phillips* standard, including any prosecution history, in large part because the patent holder no longer has the ability to amend the claims of an expired patent. *See In re Rambus, Inc.* 753 F.3d 1253, 1256 (Fed. Cir. 2014) ("If, as is the case here, a reexamination involves claims of an expired patent, a patentee is unable to make claim amendments and the PTO applies the claim construction principles outlined by this court in *Phillips v. AWH Corp.* 415 F.3d 1303 (Fed.Cir.2005)."); MPEP § 2258(g).

⁵⁴ *See In re Yamamoto*, 740 F.2d 1569, 1572 (Fed. Cir. 1984) ("The same policies warranting the PTO's approach to claim interpretation when an original application is involved have been held applicable to reissue proceedings because the reissue provision, 35 U.S.C. § 251, permits amendment of the claims to avoid prior art. The reexamination law, set forth below, gives patent owners the same right.") (citations omitted); *see also* *Cuozzo Speed Techs. LLC v. Lee*, No. 15-446, 2016 WL 3369425, at *12 (U.S. June 20, 2016) (affirming use of BRI standard for IPRs). For a discussion of the implications of *Cuozzo*, see *infra* Section IV.

⁵⁵ *See In re Cuozzo Speed Techs. LLC*, 793 F.3d 1268, 1276 (Fed. Cir. 2015) ("[T]he broadest reasonable interpretation standard has been applied by the PTO and its predecessor for more than 100 years in various types of PTO proceedings. For more than a century, courts have approved that standard."), *aff'd sub nom. Cuozzo Speed Techs.* 2016 WL 3369425.

⁵⁶ *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

and the applicant can then amend the claims to narrow its scope and avoid that prior art.⁵⁷

The BRI standard has been criticized, particularly as it is used in the post-grant procedures.⁵⁸ Moreover, one may question whether the difference in standard actually makes much difference.⁵⁹ Nevertheless, both the Supreme Court and the Federal Circuit blessed this standard for IPRs in the *Cuozzo* litigation.⁶⁰

Litigation at the USPTO, particularly in IPRs and PGRs, places a patent holder in a different posture than litigation in the courts. When asserting the patent against a potential infringer, often the patentee will argue for a broader construction so as to ensnare the accused device.⁶¹ Patentees at times have encountered a catch-22 in this

⁵⁷ See *PPC Broadband, Inc. v. Corning Optical Commc'n. RF, LLC*, 815 F.3d 734, 740 (Fed. Cir. 2016) (“While broadly construing claim language increases the likelihood that otherwise distinguishable prior art will render the claimed invention anticipated or obvious, the patentee can amend the claim language during prosecution—and narrow it if necessary—to clarify the scope of the invention and avoid rejection or cancellation of the claims.”); *In re Prater*, 415 F.2d 1393, 1404-05 (C.C.P.A. 1969) (“claims yet unpatented are to be given the broadest reasonable interpretation consistent with the specification during the examination of a patent application since the applicant may then amend his claims, the thought being to reduce the possibility that, after the patent is granted, the claims may be interpreted as giving broader coverage than is justified.”).

⁵⁸ *In re Cuozzo Speed Techs. LLC*, 793 F.3d at 1290-91 (Newman, J. dissenting) (“The new PTO regulation authorizing ‘broadest reasonable interpretation’ in these post-grant proceedings defeats ‘the will of Congress as expressed in the statute’ for it defeats the purpose of substituting administrative adjudication for district court adjudication. (citation omitted)), *cert. granted sub nom. Cuozzo Speed Techs. LLC v. Lee*, No. 15-446, 2016 WL 205946 (U.S. Jan. 15, 2016). Dawn-Marie Bey & Christopher A. Cotropia, *The Unreasonableness of the Patent Office’s ‘Broadest Reasonable Interpretation’ Standard*, 37 AIPLA Q.J. 285, 288 (2009) (“Not only does the BRI standard fail to provide the advantages touted by the courts that created the standard, the standard is contrary to both the patent statutes and the concept of a unitary patent system.”); Lauren Drake, Note, *Preventing Inequity: Extending Issue Preclusion to Claim Construction During Reexamination of Previously Litigated Patents*, 44 LOY. L.A. L. REV. 749, 762-63 (2011).

⁵⁹ *But see PPC Broadband*, 2016 WL 692368, at *4 (“This case hinges on the claim construction standard applied—a scenario likely to arise with frequency. And in this case, the claim construction standard is outcome determinative.”). As a formal matter, the BRI standard makes application of collateral estoppel based on PTAB claim constructions problematic given the differing legal standard. See Drake, *supra* note 51, at 759-60 (“To implement a form of issue preclusion in patent claim interpretation, the PTO must abandon the broadest reasonable interpretation standard in the limited context of reexamination proceedings of patents that have previously been interpreted during a *Markman* hearing.”); Michael Risch, *The Failure of Public Notice in Patent Prosecution*, 21 HARV. J.L. & TECH. 179, 192 (2007) (“This Article concludes that, while application of the rule does produce an iterative process that corrects some vague claims, the process fails to eliminate many types of ambiguous claims.”).

⁶⁰ *In re Cuozzo Speed Techs. LLC*, 793 F.3d 1268, 1275-81 (Fed. Cir. 2015), *aff’d sub nom Cuozzo Speed Techs. LLC v. Lee*, 15-446, 2016 WL 3369425, at *9, *12 (U.S. June 20, 2016).

⁶¹ There may be cases where the patentee argues for a narrower claim construction if the primary issue is invalidity and there is no question that the claim covers the accused device, even under the narrower construction. The patentee may also want a narrower construction in the face of a declaratory judgment action challenging the patent’s validity, particularly as a counterclaim, if infringement is not truly at issue.

regard, however. By advocating a broad construction, they open themselves up to invalidity challenges, to which the courts have been receptive.⁶² At the USPTO, however, only the validity of the patent is at issue. Patent holders therefore may want narrower constructions of claims to avoid the prior art and preserve the patent's validity. In IPRs and seemingly PGRs, the USPTO has significantly limited the ability of patent owners to amend the challenged claims.⁶³ Consequently, patentees may prefer to narrow the scope of their claims through arguments and disclaimer.

The USPTO is aware of the role prosecution disclaimer plays in claim construction. Recent cases, however, show that the USPTO, at least in IPRs and potentially PGRs, is stepping away from allowing such disclaimers, or at least away from allowing patent owners to argue for such disclaimers. The source for this shift, however, is a bit surprising as its genesis is in a case that generally is unrelated to claim construction and instead involves a defense to patent infringement.

III. Wither Prosecution Disclaimer?

A number of recent, albeit related, decisions by the PTAB have stated that patent owners will not be able to disclaim subject matter during the proceeding, effectively eviscerating the idea of prosecution disclaimer in IPRs and potentially PGRs. This holding seems at odds with *Phillips* and prior law that notes prosecution disclaimer applies to various proceedings. How did this PTAB panel get to this state of affairs? By interpreting an *en banc* Federal Circuit decision that had nothing to do with claim construction.

⁶² See *Liebel-Flarsheim Co. v. Medrad, Inc.* 481 F.3d 1371, 1380 (Fed. Cir. 2007) (“The irony of this situation is that Liebel successfully pressed to have its claims include a jacketless system, but, having won that battle, it then had to show that such a claim was fully enabled, a challenge it could not meet. The motto, ‘beware of what one asks for, might be applicable here.’); *Auto. Techs. Int’l, Inc. v. BMW of N. Am., Inc.* 501 F.3d 1274, 1285 (Fed. Cir. 2007) (quoting *Liebel-Flarsheim* and noting ‘ATI sought to have the scope of the claims of the ’253 patent include both mechanical and electronic side impact sensors. It succeeded, but then was unable to demonstrate that the claim was fully enabled. Claims must be enabled to correspond to their scope.’); *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 1000 (Fed. Cir. 2008) (“Because the asserted claims are broad enough to cover both movies and video games, the patents must enable both embodiments.”). For an argument that instead of invalidating these claims, the courts should use the narrower interpretation that preserves the claim’s validity, see Holbrook, *supra* note 19, at 802-03.

⁶³ *In re Cuozzo Speed Techs.* 793 F.3d at 1287-88 (Newman, J. dissenting) (“patent owners are limited to ‘one motion to amend, and are presumptively limited to substituting one issued claim for one amended claim. 37 C.F.R. § 42.221(a)(3). There is no right of amendment in these new post-grant proceedings, and motions to amend are rarely granted.”), *cert. granted sub nom.* *Cuozzo Speed Techs. LLC v. Lee*, 136 S. Ct. 890 (2016).

A. Marine Polymer and the Federal Circuit's Characterization of USPTO Practice

If there is a single *en banc* Federal Circuit patent decision that has generated little conversation in the literature, it has to be *Marine Polymer Technologies, Inc. v. HemCon, Inc.*⁶⁴ The *en banc* court considered a number of issues, but the decision was rather fractured. The district court's judgment on damages was affirmed because the court was evenly split.⁶⁵ Importantly for this Article, however, a slim majority of the court did reach a decision on when the defense of intervening rights is available to an accused infringer.⁶⁶

Intervening rights are a statutory defense to patent infringement.⁶⁷ The courts, however, originally created the doctrine to protect infringers from a potential inequity arising from reissuance proceedings.⁶⁸ In reissuance, a patent holder can request that the USPTO reconsider the validity of the claims of a patent 'patent is, through error, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent.'⁶⁹ Because the scope of the claims can change, someone relying on the original patent might think they do not infringe or that the original patent was invalid. Such concern is particularly true in the context of reissuance, where a patent holder can *expand* the scope of the patent if they file within two years of the patent issuing.⁷⁰ Imagine being a competitor, thinking you

⁶⁴ See *Marine Polymer Technologies, Inc. v. Hemcon, Inc.* 672 F.3d 1350 (Fed. Cir. 2012) (*en banc*). As of February 15, 2016, the Westlaw database on law reviews and journals lists only sixteen articles that cite the decision.

⁶⁵ *Id.* at 1360 ("The damages award is therefore affirmed by an equally divided court. ").

⁶⁶ *Id.* at 1362-63.

⁶⁷ See 35 U.S.C. § 252, ¶ 2.

⁶⁸ See *Marine Polymer*. 672 F.3d at 1361 ("The doctrine of intervening rights first developed as courts recognized that permitting substantive changes to the scope of patent claims through post-issuance procedures left 'the door open for gross injustice' where a third party, having already begun to make, use, or sell a given article, finds its previously lawful activities rendered newly infringing under a modified patent.") (quoting *Sontag Chain Stores Co. v. Nat'l. Nut Co.* 310 U.S. 281, 293-95 (1940)).

⁶⁹ 35 U.S.C. § 251 (2011). Before the AIA, any such error had to be made without deceptive intent; the AIA removed that requirement. See AIA, PL 112-29, September 16, 2011, 125 Stat 284 § 20(d)(1)(B) (striking "and without deceptive intent").

⁷⁰ See *Sontag Chain Stores Co. Ltd. v. Nat'l Nut Co. of California*, 310 U.S. 281, 293-94 (1940) ("Recapture within two years of what a patentee dedicates to the public through omission is permissible under specified conditions, but not, we think, 'at the expense of innocent parties. '); see also *Ashland Fire Brick Co. v. Gen. Refractories Co.* 27 F.2d 744, 746 (6th Cir. 1928) ("because the claims of the original patent were limited as to the form of conveyor, and because after the issue of the original patent and with knowledge of it and expressly appreciating its limited character, indeed, being governed therein by the advice of patent counsel, the defendant built a noninfringing brick machine, and still before the reissue application another one, at a substantial expense, and put them into commercial use on a large scale by extensively selling their product, and thus made them substantially material to its manufacturing business, the defendant thereby acquired at least a right to continue to use these two machines as if it held a license therefor under the reissued patent. ").

have successfully navigated around a patent, only to discover that you now infringe after it reissues.⁷¹ Courts recognized this potential inequity and created a defense as a result.⁷²

Congress codified this defense in the 1952 Patent Act⁷³ by adopting 35 U.S.C. § 252, the second paragraph of which created intervening rights. With the advent of *ex parte* reexamination proceedings in 1980,⁷⁴ Congress expanded intervening rights to those proceedings as well.⁷⁵ When Congress created IPRs, it also extended intervening rights as a defense to amended and new claims arising from those proceedings.⁷⁶ Congress did the same with IPRs, PGRs, and covered business method proceedings.⁷⁷

There are two types of intervening rights: absolute and equitable.⁷⁸ The former is an absolute defense to patent infringement, and courts have no discretion whether to apply it.⁷⁹ Equitable intervening rights may ‘apply as a matter of judicial discre-

The Supreme Court cited *Ashland Fire Brick* approvingly in *Sontag*. See *Sontag*, 310 U.S. at 294-95.

⁷¹ See Timothy R. Holbrook, *Liability for the ‘Threat of A Sale’ Assessing Patent Infringement for Offering to Sell an Invention and Implications for the on-Sale Patentability Bar and Other Forms of Infringement*, 43 SANTA CLARA L. REV. 751, 769 (2003) (“Because the scope of a patent’s claims can change as a result of reissue, competitors who may have relied upon the original patent in order to design around or otherwise compete with the patentee may have concerns as to the scope of the patent and their potential liability. The reissued patent could now cover activities that the original patent did not, which could unfairly ensnare a competitor who was not infringing the original patent, but who may now infringe the reissued patent.”).

⁷² See *supra* note 70.

⁷³ Patent Act of 1952, ch. 950, 66 Stat. 792, 808 (1952).

⁷⁴ See Act of Dec. 1, 1980, Pub. L. No. 96-517, 94 Stat. 3015 (1980).

⁷⁵ See 35 U.S.C. § 307(b) (2011) (“Any proposed amended or new claim determined to be patentable and incorporated into a patent following a reexamination proceeding will have the same effect as that specified in section 252 for reissued patents on the right of any person who made, purchased, or used within the United States, or imported into the United States, anything patented by such proposed amended or new claim, or who made substantial preparation for the same, prior to issuance of a certificate under the provisions of subsection (a) of this section.”); see also *Marine Polymer*, 672 F.3d at 1362 (“Although intervening rights originated as a defense against patents modified through reissue procedures, the doctrine has since been extended to the context of patent reexamination.”).

⁷⁶ See 35 U.S.C. § 316(b) (2011) (“Any proposed amended or new claim determined to be patentable and incorporated into a patent following an inter partes reexamination proceeding shall have the same effect as that specified in section 252 of this title for reissued patents on the right of any person who made, purchased, or used within the United States, or imported into the United States, anything patented by such proposed amended or new claim, or who made substantial preparation therefor, prior to issuance of a certificate under the provisions of subsection (a) of this section.”); see also *Marine Polymer*, 672 F.3d at 1362 (“Pursuant to 35 U.S.C. §§ 307(b) and 316(b), respectively, both *ex parte* and *inter partes* reexaminations can give rise to intervening rights.”).

⁷⁷ See 35 U.S.C. § 318(c) (2013) (*inter partes* review); 35 U.S.C. § 328(c) (2013) (*post-grant* review),

⁷⁸ See Holbrook, *supra* note 71, at 769-70 (“To combat this inequity, 35 U.S.C. § 252, ¶ 2 provides for ‘intervening rights, which act as a limited defense to patent infringement. There are two forms of intervening rights: absolute and equitable.”).

⁷⁹ See *Marine Polymer*, 672 F.3d at 1361-62 (discussing ‘intervening rights that abrogate liability for

tion to mitigate liability for infringing such claims even as to products made or used after the reissue if the accused infringer made substantial preparations for the infringing activities prior to reissue.⁸⁰

In *Marine Polymer*, the court confronted a particular aspect of intervening rights: whether intervening rights are triggered when a patent holder surrenders claim scope by argument alone and not through a claim amendment or the addition of a new claim. In other words, could intervening rights arise through prosecution disclaimer? The *en banc* court, through a 6-5 vote, concluded that intervening rights arise only when a new claim is added or a claim has been amended.⁸¹ Mere argumentation, even if it results in a narrowing of the claim scope, is insufficient.⁸²

Because intervening rights are governed by statute, the court started with the statutory language. That statutory language notes that intervening rights are available 'with respect to 'amended or new' claims in the reexamined patent.'⁸³ According to the court, an argument alone cannot trigger intervening rights 'because it disregards the plain and unambiguous language' of the statute.⁸⁴ The court viewed the requirement of an amendment or a new claim to be a threshold requirement that must be addressed before any assessment of whether there has been a substantive change in the claim.⁸⁵ Given this clear language and the particularized definitions the statutory language has in patent law, the court rejected the argument that the patentee's 'actions in reexamination rendered the asserted claims effectively 'amended' by disavowal or estoppel, even though the language of the claims was not formally changed.'⁸⁶

infringing claims added to or modified from the original patent if the accused products were made or used before the reissue, often referred to as absolute intervening rights"); see also *BIC Leisure Prods. Inc. v. Windsurfing Int'l, Inc.* 1 F.3d 1214, 1220-21 (Fed. Cir. 1993) ("The first sentence defines 'absolute' intervening rights. This sentence provides an accused infringer with the absolute right to use or sell a product that was made, used, or purchased before the grant of the reissue patent as long as this activity does not infringe a claim of the reissue patent that was in the original patent.").

⁸⁰ *Marine Polymer*, 672 F.3d at 1362; *BIC*, 1 F.3d at 1221 ("The second sentence permits the continued manufacture, use, or sale of additional products covered by the reissue patent when the defendant made, purchased, or used identical products, or made substantial preparations to make, use, or sell identical products, before the reissue date. This equitable right is not absolute. [T]he trial court may, as dictated by the equities, protect investments made before reissue.").

⁸¹ See *Marine Polymer*, 672 F.3d at 1362.

⁸² See *id.*

⁸³ *Id.*

⁸⁴ *Id.* at 1363.

⁸⁵ See *id.* at 1363 ("But under § 307(b), the first question when assessing whether intervening rights arose from a reexamination is whether the asserted claim is 'amended or new' if the answer is no, that ends the inquiry. Only if the claim at issue is new or has been amended may the court proceed to the second step in the analysis and assess the substantive effect of any such change pursuant to § 252.").

⁸⁶ *Marine Polymer*, 672 F.3d at 1363.

The court recognized that limiting intervening rights to amended or new claims could result in patent holders trying to game the system. Patentees could now argue for narrower claim scope in reexamination to preserve a patent's validity while avoiding triggering intervening rights for third parties.⁸⁷ The court rejected this policy concern by speculating that examiners would not permit it to happen: 'If, in reexamination, an examiner determines that particular claims are invalid and need amendment to be allowable, one would expect an examiner to require amendment rather than accept argument alone.'⁸⁸ If argument alone would suffice, then 'it is probably because the claims at issue are not unallowable.'⁸⁹

Indeed, the court noted that any such gamesmanship could work against the patentee if argument alone could trigger intervening rights: 'the patent owner will necessarily make substantive arguments in defending the claims, thereby allowing the requestor to allege intervening rights based on those arguments.'⁹⁰ The court refused to 'speculate about possible consequences with respect to situations not before us and which we cannot foresee.'⁹¹ Ultimately the court viewed this case as simply a matter of statutory interpretation:

To be sure, patent applicants' actions and arguments during prosecution, including prosecution in a reexamination proceeding, can affect the proper interpretation and effective scope of their claims. But in rejecting HemCon's request for intervening rights, we are not here interpreting claims. Rather, we are interpreting a statute that provides for intervening rights following reexamination only as to "amended or new" claims.⁹²

The dissent rejected the majority's viewpoint. As a threshold matter, the dissent viewed the holding to be dicta. Because the equally divided court affirmed the district court, the claim scope was not narrowed and intervening rights would not be triggered, regardless of the outcome.⁹³ Regardless, the dissent rejected the majority's interpretation of the statute. The dissent noted that '[t]he effect [of the argument] was to narrow the claims and protect them from a finding of invalidity.'⁹⁴ As such, 'although identical in language, the claims of the patent after reexamination were not identical in scope for purposes of intervening rights because they were

⁸⁷ See *id.* at 1364 ('[S]hrewd patentees would simply opt to rely on arguments rather than amendments to effectively change, and thereby preserve, otherwise invalid claims during reexamination without engendering intervening rights against those claims.').

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.* at 1365.

⁹¹ *Id.*

⁹² *Marine Polymer*, 672 F.3d at 1365.

⁹³ See *id.* at 1371 (Dyk, J. dissenting) ('In other words, under the district court's incorrect claim construction, now binding on the parties as a result of the affirmance of the district court's judgment, the original and reexamined claims are identical in scope, and there is thus no issue of intervening rights and no need for the majority to offer 'an alternative ground for decision.').

⁹⁴ *Id.* at 1373 (Dyk, J. dissenting).

'substantively changed' during reexamination' and thus triggered intervening rights.⁹⁵ The dissent took the fear of gaming the system far more seriously:

Tellingly, the amici who support the court's interpretation of the statute recognize that formal amendments to claim language during the course of reexamination are unusual. *See* Amicus Br. of Soverain et al. at 10. Telling too they admit that formal amendments are now, and will be, avoided for the very purpose of avoiding the creation of intervening rights. *Id.* at 4 (arguing that patent owners often "follow a course of not seeking to amend their asserted claims, with the settled understanding that if they could avoid claim amendments, they could also avoid intervening rights"). In other words, applicants will amend claims by argument rather than formal methods for the very purpose of avoiding intervening rights.⁹⁶

The law now is clear, however. Prosecution disclaimer cannot trigger intervening rights. Only amended claims or new claims are sufficient.

B. Unintended Consequences? PTAB Panels Use Marine Polymer to Per Se Reject Disclaimer

The issue decided in *Marine Polymer* was rather narrow. Because the decision was 6-5, its precedential effect is arguably suspect. Most importantly, as the dissent noted, the holding on intervening rights seemingly is dicta.⁹⁷ Because the district court's construction was affirmed by an equally divided court, the claim scope did not change. There was no narrowing of the claim scope by argument, so there should be no intervening rights at stake. As such, one may be skeptical about reading the decision to have broad impact.

A number of related decisions at the PTAB, however, have done just that, affording *Marine Polymer* broad play by refusing to permit prosecution disclaimer in IPRs. The gamesmanship dynamic discussed by both the majority and dissent in *Marine Polymer* appeared to be arising in IPRs, with parties using arguments to disclaim subject matter without an amendment. This may not be pure gamesmanship, however. The PTAB has been very reluctant to permit amendments in IPRs, so arguing for a narrower construction of the claim may be a patent holder's only avenue for avoiding prior art in the patent's extant claims.

⁹⁵ *Id.*

⁹⁶ *Id.* at 1377 (Dyk, J. dissenting) ("the majority's interpretation of intervening rights will create the very opportunities for mischief and 'foster gamesmanship' that the statute was designed to avoid.").

⁹⁷ *See Marine Polymer*, 672 F.3d at 1362-63 ("Although we reject the premise of HemCon's argument regarding intervening rights—that the district court's claim construction prior to reexamination of the '245 patent was erroneous—we conclude, as an alternative ground for decision, that even if the district court's claim construction was erroneous, HemCon's intervening rights argument must fail because it disregards the plain and unambiguous language of § 307(b).").

Nevertheless, efforts by patentees to surrender scope by disclaimer have been rebuffed by some panels at the PTAB. In *eBay, Inc. v. Xprt Ventures, LLC*, an IPR, the PTAB affirmed the examiner's conclusion that the claims at issue were invalid.⁹⁸ Importantly, the PTAB rejected the patent holder's efforts to disclaim subject matter by argument. The patentee argued that it disavowed the full scope of the terms 'payment account' and 'payment accounts.'⁹⁹ The PTAB noted that '[u]nderlying these arguments though, is the erroneous premise that claim scope can be altered during prosecution, such as in a reexamination, by 'clearly and unambiguously' disavowing particular features, instead of amending the claim.'¹⁰⁰ Relying on *Marine Polymer*, the PTAB succinctly noted 'it is well established that the appropriate method for changing the scope of a claim during prosecution is claim amendment.'¹⁰¹ The PTAB thus rejected the patentee's disavowal efforts:

Where, as here, the Examiner has rejected the claims as unpatentable over the cited prior art, amendment may be needed to distinguish the claims. The Patent Owner cannot circumvent this method by affirmatively stating 'a clear and unambiguous' disavowal. Accordingly, we agree with the Requester's position that the Patent Owner cannot change the scope of the claim terms through disavowal and find each of the arguments presented based on disavowal of claim scope unpersuasive.¹⁰²

As such, the PTAB simply refused to permit the patent holder to narrow the scope of the claim through disclaimer alone. The court took the Federal Circuit's language in *Marine Polymer* to heart, even though the case was about intervening rights and not claim construction at the USPTO.

The scope of this holding is unclear, though four other PTAB decisions have held the same. The opinions, however, are in related cases, all involving eBay's challenges to Xprt Ventures' related patents.¹⁰³ The panel of PTAB judges is exactly the same: Judges Turner, Saindon, and McKeown. The authoring judge in all is also Judge McKeown. Although the claim terms at issue in the cases do differ, all of the decisions reject the disclaimer argument on legal grounds, using verbatim language from the first case.¹⁰⁴ With the same judges, the same author, the same

⁹⁸ 2014 WL 1311749 (Patent Tr. & App. Bd. March 21, 2014).

⁹⁹ *Id.* at *3-4.

¹⁰⁰ *Id.* at *4.

¹⁰¹ *Id.* at *4.

¹⁰² *Id.* at *4 (citation omitted).

¹⁰³ *eBay, Inc. v. Xprt Ventures, LLC*, 2015 WL 3506036 (Patent Tr. & App. Bd. May 29, 2015); *eBay, Inc. v. Xprt Ventures, LLC*, 2014 WL 1331053 (Patent Tr. & App. Bd. March 31, 2014); *eBay, Inc. v. Xprt Ventures, LLC*, 2014 WL 1311754 (Patent Tr. & App. Bd. March 31, 2014); *eBay, Inc. v. Xprt Ventures, LLC*, 2014 WL 1311748 (Patent Tr. & App. Bd. March 31, 2014).

¹⁰⁴ *See eBay, Inc. Requester, Respt. and Cross-Appellant, APPEAL 2015-004981*, 2015 WL 3506036, at *4 (Patent Tr. & App. Bd. May 29, 2015); *Ebay, Inc. Requester and Respt., APPEAL 2014-002130*, 2014 WL 1331053, at *4 (Patent Tr. & App. Bd. Mar. 31, 2014); *Ebay, Inc. Requester and Respt., APPEAL 2014-002490*, 2014 WL 1311754, at *4 (Patent Tr. & App. Bd. Mar. 31, 2014); *Ebay, Inc. Requester and Respt., APPEAL 2013-009578*, 2014 WL 1311748, at *4 (Pa-

language, and the same parties in related cases, this approach may not be widely embraced by other PTAB judges.

Additionally, the Federal Circuit has yet to address the PTAB's approach in these cases. The refusal to allow disclaimers by patent holders presents an interesting question of appellate review, however. The USPTO has no substantive rule-making authority.¹⁰⁵ The Article III courts – and the Federal Circuit and Supreme Court in particular – control the substantive development of patent law. The USPTO does have authority over the procedures before its various tribunals, and generally the Federal Circuit affords some level of deference to such procedures.¹⁰⁶ It is unclear whether the PTAB's prosecution disclaimer prohibition is substantive or procedural.¹⁰⁷ It appears to be stuck squarely in the middle. The rule is procedural in the sense that it is merely limiting the arguments that a patent holder can make at the PTAB; it does not directly govern the outcome of the case. In practice, however, it can have significant substantive impact: if the patent holder is unable to disclaim subject matter, the patent is far more likely to be struck down. This rule epitomizes why the procedure versus substance line has always been viewed as fuzzy if not entirely artificial.¹⁰⁸

From a reviewability viewpoint, though, it may matter. If the Federal Circuit views it as a substantive one related directly to claim construction doctrine, then it will be free to discard the rule if it feels it is inappropriate. If the rule is viewed as procedural, though, the court will need to explain why it should not defer to the rule adopted by the PTAB panel. Thus, whether the *eBay* rule survives on appeal remains an open question.

Nevertheless, sophisticated patent counsel, eBay's lawyers, advanced the argument. With the success at the PTAB, one would think these decisions could be the

tent Tr. & App. Bd. Mar. 31, 2014).

¹⁰⁵ See *Ass'n for Molecular Pathology v. U.S. Patent and Trademark Office*, 689 F.3d 1303, 1343–44 (Fed. Cir. 2012) (Moore, J. concurring) (reviewing longstanding practice of USPTO to issue gene patents even though not binding on courts), *aff'd in-part, rev'd in-part* by Association Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107 (2013); Sapna Kumar, *The Accidental Agency?*, 65 FLA. L. REV. 229, 237 (2013) (“The PTO notably lacks substantive rulemaking authority over the Patent Act.”); David Orozco, *Administrative Patent Levers*, 117 PENN. ST. L. REV. 1, 7 (2012) (noting that USPTO “lacks substantive rule-making authority, and its foray into substantive rulemaking will likely be reviewed by the federal courts.”).

¹⁰⁶ Kumar, *supra* note 105 at 237–38 (“[T]he Federal Circuit has granted Chevron deference to the PTO only when it has ‘interpret[ed] statutory provisions relat[ed] to the conduct of proceedings in the Patent Office.’”) (quoting *Cooper Techs. Co. v. Dudas*, 536 F.3d 1330, 1335–37 (Fed. Cir. 2008)).

¹⁰⁷ The *Cuozzo* decision, though, suggests that claim construction is substantive and the USPTO has substantive rulemaking authority in the IPR context. See *infra* note 131 and accompanying text.

¹⁰⁸ See, e.g. Martin H. Redish & Dennis Murashko, *The Rules Enabling Act and the Procedural-Substantive Tension: A Lesson in Statutory Interpretation*, 93 MINN. L. REV. 26, 31 (2008) (“the last seventy years of doctrine and scholarship have failed to produce a generally accepted construction of the procedural-substantive interplay in the [Rules Enabling] Act’s two key provisions.”).

narrow edge of a wedge to advance this argument more widely. Moreover, another PTAB panel has expressed discomfort with permitting patent owners to disclaim scope via argument. Although it did not rely upon *Marine Polymer*, it did note that:

In this reexamination proceeding, Owner attempts to narrow the scope of the claim by *argument* before the USPTO, instead of by *amendment*.

As guided by *Tempo Lighting, Inc.* the PTO is under no obligation to accept a claim construction proffered as a prosecution history disclaimer. However, to the extent our reviewing court may agree with Owner that we have not sufficiently considered the prosecution history in this reexamination proceeding, and consistent with the cited portion *Microsoft Corp. v. Proxycorn, Inc.* we have reconsidered our claim construction, as urged in the Request (3), and we give the most weight to Owner's statement made during the prosecution history that there is no specific definition in the '508 patent under reexamination for the contested 'stored data' claim term.¹⁰⁹

Although this panel allowed the patent owner to make the disclaimer argument (and ultimately rejected it), the language of the decision shows a discomfort with allowing patent owners to surrender claim scope by argument instead of amendment. There appears to be, therefore, a broader concern with prosecution disclaimer within the PTAB.

C. *The Potential Impact of PTAB These Dynamics on Broader Claim Construction*

How much impact these cases will have remains to be seen. They do show, however, an inclination on the part of the PTAB to step away from allowing argument-based disclaimers. If this perspective takes hold, particularly in the examination corps, then the USPTO may indirectly impact the way that claim construction takes place in the courts.

The most direct way that this approach could affect claim construction is by effectively precluding prosecution disclaimer. If the USPTO refuses to allow applicants to make such disclaimers, then one tool of claim construction may be removed from the courts. While the prosecution history would remain relevant, the patent holder in post-issuance proceedings would be without recourse to disclaimers. This dynamic could be particularly problematic in IPRs and PGRs, where the opportunity to amend any claims is rather minimal. It is also troubling given the failure of the USPTO, under the guise of the BRI standard, to consider earlier prosecution histories that may demonstrate a narrower claim construction. By eliminating disclaimer, the USPTO creates a one-way ratchet towards expansive claim constructions and potentially greater invalidity determinations.

¹⁰⁹ *Ex Parte* Lawrence B. Lockwood, APPEAL 2015-000143, 2015 WL 5469618, at *4-5 (Sept. 15, 2015).

This dynamic raises an even more fundamental issue, however. It poses an interesting question: What exactly is the difference between claim construction at the USPTO and prosecution disclaimer? Historically, in examination, the examiner may not offer a formal claim construction. Instead, the examiner would reject the claim in light of the prior art or a section 112 rejection, leaving it to the prosecutor to amend the claim or to traverse the rejection via argument. That traversal is often what would trigger a disclaimer, and the iterative process would yield generally narrower claims.¹¹⁰ The Federal Circuit has noted that it is the applicant, not the examiner, who triggers prosecution disclaimer.¹¹¹ The focus on the applicant makes sense if we view prosecution disclaimer as a form of estoppel. The representations are being held against the applicant, and thus it is the applicant's behavior that results in the loss of claim scope, just as it is a particular actor's behavior in other contexts that trigger various other estoppels.¹¹² Of course, holding such representations against the patent applicant or owner has its roots in ideas of estoppel. At one level, prosecution disclaimer is akin to judicial estoppel because the applicant or patentee has made representations to a tribunal – the USPTO – and will now be held to them elsewhere, such as in court. Similarly, with its close tie to prosecution history estoppel, prosecution disclaimer is also viewed as a type of estoppel vis-à-vis the public. The public has the right to rely on the representations made to the USPTO in assessing the scope of the patent. Although prosecution disclaimer could be justified on either ground, the Federal Circuit has rooted the doctrine in the latter.¹¹³ Indeed, the Federal Circuit has noted that prosecution disclaimer applies even if the examiner or PTAB did not rely on the representation in deciding to issue the patent.

The court has only obliquely linked prosecution disclaimer to ideas of prosecution history estoppel, and prosecution history estoppel itself is only loosely an estoppel, given the lack of a requirement for detrimental reliance. Moreover, if the applicant's argument is successful and the examiner yields, hasn't the examiner im-

¹¹⁰ See *PPC Broadband, Inc. v. Corning Optical Commc'ns. RF, LLC*, Nos. 2015–1361, 2015–1369, 2015–1366, 2015–1368, 2016 WL 692368 at *3 (Fed. Cir. Feb. 22, 2016).

¹¹¹ See *Innova/Pure Water, Inc. v. Safari Water Filtration Sys. Inc.* 381 F.3d 1111, 1124 (Fed. Cir. 2004) (“[I]t is the applicant, not the examiner, who must give up or disclaim subject matter that would otherwise fall within the scope of the claims.”).

¹¹² For example, it is the promisor whose acts are held against her in promissory estoppel, assuming there is reliance and material detriment. See, e.g. *Cyberchron Corp. v. Calldata Sys. Dev. Inc.*, 47 F.3d 39, 44 (2d Cir. 1995). Similarly, it is the party making representations to a court that faces judicial estoppel if she changes her position elsewhere. See, e.g. *Konstantinidis v. Chen*, 626 F.2d 933, 937 (D.C. Cir. 1980) (“in contrast to equitable estoppel's concentration on the integrity of the parties' relationship to each other, judicial estoppel focuses on the integrity of the judicial process.”).

¹¹³ See *Omega Eng'g, Inc. v. Raytek Corp.* 334 F.3d 1314, 1324 (Fed. Cir. 2003) (“As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution.”).

plicitly adopted the position of the applicant, resulting in an implicit claim construction on the part of the USPTO? [start]

This distinction is important at a formal level. The Federal Circuit has made clear that it is not bound by USPTO claim constructions offered in administrative proceedings that parallel litigation.¹¹⁴ Yet, in some sense, the court is deferring to the implied claim construction of an examiner through the public disclaimer doctrine. This blurry distinction will become increasingly important as more patents go through parallel proceedings in the district courts and USPTO. The line will become increasingly unclear as the PTAB consistently performs its own, formal claim construction. Even if the PTAB steps back from the prohibition on disclaimers articulated in the *eBay* collection of cases, it becomes difficult to see how disclaimer could apply in the context of a formal construction by the USPTO. There will no longer be an implicit surrender due to the iterative nature of an applicant and examiner and, instead, there will be a discussion of the particular claim limitation at issue. According to the Federal Circuit, it needs not defer to these constructions, but such constructions would appear to preclude any form of disclaimer on the part of the applicant.

The use of formal construction by the PTAB could reach beyond the IPR, CBM, and PGR contexts. One could reasonably believe that, as PTAB judges acclimate to their adversarial docket, they would be increasingly likely to adopt the same claim construction methodologies in the examination, reissuance, and reexamination contexts. It would be an odd exercise of mental compartmentalization for the PTAB judges to rigorously perform claim construction in one context while ignoring the importance of claim construction in another. If the PTAB judges begin to use formal claim construction in these other, *ex parte* contexts – either through formally rejecting surrender per *eBay* or by offering claim constructions themselves – it would appear that prosecution disclaimer could simply wither away. Consequently, the courts could lose a source of claim construction.

The problem could be further compounded if, after being reviewed by PTAB judges, the examination corps also begins to think about claim construction more rigorously. As examiners begin to construe claims, there may no longer be implicit surrenders by the applicant, particularly if the examiners simply refuse to allow applicants to narrow claims effectively by argumentation. Whether the PTAB judges

¹¹⁴ *SRAM Corp. v. AD-II Eng'g, Inc.* 465 F.3d 1351, 1359 (Fed. Cir. 2006) (“Furthermore, this court is not bound by the PTO’s claim interpretation [during reexamination] because we review claim construction *de novo*.”). Of course, this statement must now be qualified by potential extrinsic factual evidence under *Teva*. But, as in this case, the Federal Circuit was not reviewing a USPTO claim construction directly; instead it was rejecting the construction by the USPTO in a reexamination on a patent at issue in the litigation.

and examiners will begin to more formally utilize claim construction in non-adversarial contexts is an empirical question, one that has yet to be explored.¹¹⁵

IV. *Cuozzo, B & B Hardware, and the Potential for Issue Preclusion in Claim Construction*

No discussion of the impact of claim construction at the PTAB is complete without considering the Supreme Court's recent decision in *Cuozzo Speed Technologies, LLC v. Lee*, where the Court addressed IPRs for the first time.¹¹⁶ Additionally, the PTAB's use of formal claim construction methodology in IPRs raises another issue, that of whether issue preclusion (also known as claim construction) can arise from the PTAB's construction after a final decision. The Supreme Court has held that issue preclusion can arise from decisions by the Trademark Trial and Appeal Board (TTAB), the sister tribunal to the PTAB at the USPTO.¹¹⁷ Could PTAB claim construction determinations also trigger such preclusion? If so, the PTAB's impact on claim construction in the district courts could be a far more direct. This Section explores these dynamics by first evaluating *Cuozzo's* retention of the BRI standard, the Supreme Court's decision applying issue preclusion to TTAB decisions, and then the potential applicability of issue preclusion to PTAB claim construction determinations.

A. *Cuozzo – An Administrative, and Not a Patent, Law Decision*

In *Cuozzo*, the Supreme Court addressed two issues: whether the AIA precluded challenges on appeal to the PTAB's decision to institute an IPR proceeding and whether BRI was the appropriate standard for claim construction in IPRs.¹¹⁸ The Court agreed with the Federal Circuit on both issues. As to the former, the Court agreed, 6-2, that the USPTO's decision to initiate IPR proceedings is not subject to review on appeal. As to the latter, and germane to this paper, the Supreme Court unanimously endorsed the USPTO's decision to adopt BRI as the appropriate claim construction standard.¹¹⁹

The Court's reasoning on both of these points was rooted in administrative law principles rather than patent theory or doctrine. As to the review of institution decisions, the Court looked at the statutory language that states 'determination by the [Patent Office] whether to institute an inter partes review under this section shall be *final and nonappealable*.'¹²⁰ The Court found the statutory language to be clear enough to rebut the strong presumption in favor of judicial review of administrative

¹¹⁵ A question that I intend to pursue in future work.

¹¹⁶ *Cuozzo Speed Techs. LLC v. Lee*, No. 15-446, 2016 WL 3369425 (U.S. June 20, 2016).

¹¹⁷ *B & B Hardware, Inc. v. Hargis Industries, Inc.* 135 S.Ct. 1293 (2015).

¹¹⁸ *Cuozzo*, 2016 WL 3369425 at *3-4.

¹¹⁹ *Id.* at *4.

¹²⁰ *Id.* at *7 (quoting 35 U.S.C. § 314(d) with emphasis added).

determinations.¹²¹ In contrast, the Justice Alito in dissent felt that statute only precluded *interlocutory* appeals; after a final decision, a party would be able to challenge the institution decision as well.¹²²

As to the BRI standard, the Court failed to engage with claim construction doctrine at all. Instead, it drew on administrative law principles to justify deference to the USPTO on the issue. The Court looked at the AIA and concluded that it contained a legal gap: it does not articulate the appropriate claim construction standard.¹²³ Given the gap, the USPTO had the authority via rulemaking to fill that gap, and the courts are required to defer to that interpretation so long as it is reasonable pursuant to *Chevron*.¹²⁴ The BRI standard is a reasonable standard to use. The Court went on to reject the various policy considerations that the petitioner raised. The Court rejected the first – that IPRs are supposed to be like litigation – because there are significant differences between the two.¹²⁵ The Court also rejected the argument that BRI is inappropriate because of the limited ability of patent holders to amend claims in IPR proceedings.¹²⁶

The *Cuozzo* decision is interesting on a number of levels. Even though the Court agreed with the Federal Circuit, there are some important differences in the reasoning. On the issue of the reviewability of institution decisions, the Supreme Court did not seem to take as strict of a view of the statutory prohibition as the Federal Circuit. Instead, it left the door open to some judicial review of initiation decisions. The Court noted it was not deciding ‘the precise effect’ of the statute ‘on appeals that implicate constitutional questions, that depend on other less closely re-

¹²¹ *Id.* at 8.

¹²² *Id.* at *15 (Alito, J. dissenting in relevant part) (“[C]onsistent with the strong presumption favoring judicial review, Congress required only that judicial review, including of issues bearing on the institution of patent review proceedings, be channeled through an appeal from the agency’s final decision.”).

¹²³ *Id.* at *10 (“The statute contains such a gap: No statutory provision unambiguously directs the agency to use one standard or the other.”).

¹²⁴ *Id.*

¹²⁵ *Id.* at *11 (“The problem with *Cuozzo*’s argument, however, is that, in other significant respects, inter partes review is less like a judicial proceeding and more like a specialized agency proceeding.”) It remains to be seen whether this language will make Judge Newman of the Federal Circuit cease dissenting from various IPR decisions precisely on these grounds. See, e.g. *SAS Inst. Inc. v. Complementsoft, LLC*. No. 2015-1346, 2016 WL 3213103, at *9 (Fed. Cir. June 10, 2016) (Newman, J. concurring-in-part and dissenting-in-part) (“The statutory provisions and the legislative purpose of substituting an agency tribunal for district court proceedings on aspects of patent validity are defeated by the PTO’s position that it can leave some challenged claims untouched.”); *Synopsys, Inc. v. Mentor Graphics Corp.* 814 F.3d 1309, 1336 (Fed. Cir. 2016) (Newman, J. dissenting) (“the record confirms that throughout the gestation of the America Invents Act, legislators of the House and Senate sought strong and conclusive resolution of the most challenging issues of patent-supported innovation, by providing an effective alternative to district court litigation, whereby the expert agency would reliably and confidently review the validity of granted patents.”).

¹²⁶ See *supra* notes 54-57 and accompanying text (explaining interaction of BRI and claim amendments during examination, reexamination, and reissuance).

lated statutes, or that present other questions of interpretation that reach' beyond this particular provision.¹²⁷ The dissent, of course, believed that far more robust review should be available at the Federal Circuit.¹²⁸ There is some overlap between the majority and dissent on what issues may be reviewable regarding the institution decision,¹²⁹ which suggests that, unlike the Federal Circuit's decision, there is greater flexibility to challenge these decisions. The extent of such ability, though, will have to be sorted out in future cases.

As to the BRI standard, the Court undermined what had been viewed as sacrosanct in patent law: that the USPTO has no substantive rulemaking authority.¹³⁰ The Court, at least as to IPR proceedings, rejected that rule, concluding that the USPTO did have substantive rule making authority in this area.¹³¹ *Cuozzo* was specific to the statute at play in the case, but its reasoning brings into question the Federal Circuits earlier rule denying the USPTO such authority. If *Cuozzo* is broadly interpreted, it would mark a sea change in patent law and the institutional relationship between the USPTO and the Federal Circuit. Minimally, *Cuozzo* suggests that the Court views claim construction as a substantive issue and not one of procedure.

As to both holdings, the Supreme Court treated the USPTO like any other administrative agency. It generally deferred to the manner by which the agency decided to regulate proceedings before it. Thus, *Cuozzo* can be viewed as the Supreme Court confirming a shift in power away from the Federal Circuit and to the USPTO, particularly under the America Invents Act. What downstream consequences this may have for the relationship between the court and agency remain to be seen.

Because this decision was effectively an administrative law decision rather than a patent law decision, however, there is a paucity of consideration or elaboration of claim construction doctrine. The Court offered no insight as to the appropriate

¹²⁷ *Cuozzo*, 2016 WL 3369425, at *8.

¹²⁸ *Id.* at *15 (Alito, J. dissenting) (“Congress required only that judicial review, including of issues bearing on the institution of patent review proceedings, be channeled through an appeal from the agency’s final decision.”)

¹²⁹ *Id.* at *20 (“I take the Court at its word that today’s opinion will not permit the Patent Office ‘to act outside its statutory limits’ in these ways. But how to get there from the Court’s reasoning—and how to determine which ‘statutory limits’ we should enforce and which we should not—remains a mystery. I would avoid the suspense and hold that 35 U.S.C. § 314(d) does not bar judicial reviewFalse”).

¹³⁰ *See supra* note 105.

¹³¹ *Id.* The Court reasoned:

That statute [35 U.S.C. § 2(b)(2)(A)] does not clearly contain the Circuit’s claimed limitation, nor is its language the same as that of § 316(a)(4). Section 2(b)(2)(A) grants the Patent Office authority to issue ‘regulations’ “which shall govern proceedings in the Office (emphasis added), but the statute before us, § 316(a)(4), does not refer to “proceedings”—it refers more broadly to regulations “establishing and governing inter partes review.” The Circuit’s prior interpretation of § 2(b)(2)(A) cannot magically render unambiguous the different language in the different statute before us. *Id.*

methodology for performing claim construction under the BRI standard. For example, the Court did not consider whether the earlier prosecution history should be routinely considered in post-issuance proceedings like IPRs, even under the BRI standard.¹³² Nor was there an elaboration on the appropriate use of the specification to narrow claim scope, an issue that has generated some controversy within the Federal Circuit.¹³³ Such clarification would have been helpful because it impacts whether prosecution disclaimer could, and should, become relevant in IPRs, PGRs, and CBMs. The relevance could be muted, however, if the PTAB and examiners refuse to allow narrowing arguments under *Marine Polymer*. *Cuozzo* offers us nothing in this regard. Thus, the limits of BRI – and how it actually differs, if at all, from the *Phillips* methodology – remains unexplored.

B. B & B Hardware Opens the Door to Issue Preclusion from Adversarial Administrative Proceedings

One issue that may still arise is the possibility of issue preclusion applying to PTAB claim construction decisions once there is a final decision. Had the Supreme Court adopted the *Phillips* methodology, then issue preclusion almost certainly would apply to PTAB claim constructions in the various adversarial, post-grant proceedings, once there was a final decision. But, even with BRI, issue preclusion remains a possibility.

Issue preclusion prevents the relitigation of an issue that has previously been decided. Generally, issue preclusion has four necessary elements: '(1) the issue at stake must be identical to the one in the prior litigation; (2) the issue must have been actually litigated in the prior suit; (3) the determination of the issue in the prior litigation must have been a critical and necessary part of the judgment in that action; and (4) the party against whom the earlier decision is asserted must have had a full and fair opportunity to litigate the issue in the earlier proceeding.'¹³⁴ Issue preclusion applies to district court constructions, so long as there is a final judgment. There is no issue preclusion merely after a *Markman* hearing.¹³⁵ After a judgment regarding validity or infringement, however, then issue preclusion can apply.¹³⁶

¹³² See *supra* notes 52 and accompanying text.

¹³³ The Supreme Court had previously asked for the Solicitor General's views on this issue, though the Solicitor recommended declining review in that case. Brief of United States as Amicus Curiae, *Retractable Technologies, Inc. v. Becton, Dickinson and Co.* No. 11-1154, 2012 WL 5940288, at 7 (U.S. Nov. 28, 2012).

¹³⁴ *RF Del. Inc. v. Pac. Keystone Techs. Inc.* 326 F.3d 1255, 1261 (Fed. Cir. 2003) (quoting *In re McWhorter*, 887 F.2d 1564, 1566 (11th Cir. 1989)).

¹³⁵ See *id.* at 1261 ("Here, Pacific has not met its burden of proof to invoke collateral estoppel because the standard for judicial finality is not satisfied.").

¹³⁶ See, e.g., *Abbott Labs. v. Dey L.P.* 110 F.Supp.2d 667, 670 (N.D. Ill. 2000) (applying collateral estoppel to claim construction based on prior district court judgment).

Issue preclusion generally has applied within the judicial system between courts, but the Supreme Court has made clear that it can also apply between courts and administrative agencies adjudicative arms. The Supreme Court created the possibility for issue preclusion in a trademark case, *B & B Hardware, Inc. v. Hargis Industries, Inc.*¹³⁷ The Court held in *B & B Hardware* that issue preclusion could apply in district courts as a result of decisions in trademark registration oppositions by the Trademark Trial and Appeal Board (TTAB).¹³⁸ In particular, the Court held that a conclusion of a likelihood of consumer confusion could preclude relitigation of that issue in an infringement context.¹³⁹

The Court addressed a threshold issue: could issue preclusion apply to agency determinations at all?¹⁴⁰ The Court answered that question in the affirmative,¹⁴¹ explaining that “[b]oth this Court’s cases and the Restatement make clear that issue preclusion is not limited to those situations in which the same issue is before two courts. Rather, where a single issue is before a court and an administrative agency, preclusion also often applies.”¹⁴² In so holding, the Court turned away arguments that issue preclusion based on an agency decision would somehow create constitutional issues or that issue preclusion could not apply because agencies did not exist at common law.¹⁴³

The Supreme Court also rejected any categorical bar of issue preclusion in the particular context of TTAB determinations. The Court considered whether it was evident that Congress intended issue preclusion not to apply to TTAB decisions.¹⁴⁴ While acknowledging the availability of a *de novo* review of the TTAB decision at a district court, the Court nevertheless reasoned that “[o]rdinary preclusion law teaches that if a party to a court proceeding does not challenge an adverse decision, that decision can have preclusive effect in other cases, even if it would have been reviewed *de novo*.”¹⁴⁵ The Supreme Court also noted the two-way street of issue preclusion here because the TTAB affords preclusive effect to district court decisions in its hearings.¹⁴⁶

The Court also rejected that the streamlined nature of the TTAB opposition hearings should render issue preclusion inapplicable. TTAB hearings are rather streamlined, and decisions are based solely on written materials with no testimony

¹³⁷ See generally 135 S.Ct. 1293 (2015).

¹³⁸ *Id.* at 1299.

¹³⁹ *Id.* at 1308.

¹⁴⁰ *Id.* at 1302.

¹⁴¹ *Id.*

¹⁴² *Id.* at 1303.

¹⁴³ *Id.* at 1304.

¹⁴⁴ *B & B Hardware*, 135 S.Ct. at 1305.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* at 1305-06 (“When a district court, as part of its judgment, decides an issue that overlaps with part of the TTAB’s analysis, the TTAB gives preclusive effect to the court’s judgment.”).

allowed.¹⁴⁷ Nevertheless, “the TTAB allows parties to submit transcribed testimony, taken under oath and subject to cross-examination, and to request oral argument.”¹⁴⁸ In many ways, opposition hearings are “similar to a civil action in a federal district court.”¹⁴⁹ The Court also recognized that these proceedings were not entirely about expediency, given the availability of a *de novo* review in district courts.¹⁵⁰ Consequently, there was nothing evident about opposition proceedings to suggest that Congress did not intend issue preclusion to apply to TTAB decisions.

Finally, the Court concluded that the variations between the TTAB and the circuit courts of appeal on the standard for analyzing the likelihood of confusion did not merit a categorical exclusion of issue preclusion. The legal standard for consumer confusion varies across the circuits, so seemingly the manner that the TTAB evaluates the issue could differ from that of other courts.¹⁵¹ Nevertheless, the Supreme Court concluded that issue preclusion could still apply even with these variations, and the Court rejected a categorical exclusion of issue preclusion on this basis.¹⁵² While it recognized that differences exist between registration and infringement,¹⁵³ the Court nevertheless concluded that “the same likelihood-of-confusion standard applies to both registration and infringement.”¹⁵⁴

The Court also appreciated that the analysis at the TTAB usually is based on a registration, unlike district court litigation that focuses on the actual use of the mark.¹⁵⁵ In the Court’s view, however, this distinction would impact whether to apply issue preclusion in a particular case and did not justify a blanket prohibition on preclusion.¹⁵⁶ Other procedural differences between the TTAB and district courts could justify not applying issue preclusion in a particular case, if “the procedures used in the first proceeding were fundamentally poor, cursory, or unfair.”¹⁵⁷ The

¹⁴⁷ *Id.* at 1300.

¹⁴⁸ *Id.*

¹⁴⁹ *Id.* (quoting TTAB Manual of Procedure § 102.03 (2014)).

¹⁵⁰ *Id.* at 1306 (“Here, if a streamlined process in all registration matters was particularly dear to Congress, it would not have authorized *de novo* challenges for those ‘dissatisfied’ with TTAB decisions.”).

¹⁵¹ Barton Beebe, *An Empirical Study of the Multifactor Tests for Trademark Infringement*, 94 CAL. L. REV. 1581, 1582-83 (2006) (“Each circuit has developed its own formulation of the test. While there is overlap among some of the factors used, there is also great diversity—not just in which factors are employed, but in how they are employed.”).

¹⁵² *B & B*, 135 S. Ct. at 1306-07.

¹⁵³ *Id.* at 1306-07.

¹⁵⁴ *Id.* at 1306.

¹⁵⁵ *B & B Hardware* 135 S.Ct. at 1307-08.

¹⁵⁶ *Id.* at 1308 (“[I]f the TTAB does not consider the marketplace usage of the parties’ marks, the TTAB’s decision should ‘have no later preclusive effect in a suit where actual usage in the marketplace is the paramount issue.’”) (quoting 6 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION, § 32:101, at 32-246 (4th ed. 2010)).

¹⁵⁷ *Id.* at 1309.

Supreme Court rejected the contention that there was some reason to believe that the TTAB proceedings would be unfair categorically, however.¹⁵⁸

The Court then instructed the Eighth Circuit to use the following rule on remand to determine whether to apply issue preclusion: 'So long as the other ordinary elements of issue preclusion are met, when the usages adjudicated by the TTAB are materially the same as those before the district court, issue preclusion should apply.'¹⁵⁹

Consequently, it is possible for a TTAB conclusion on the likelihood of confusion to preclude that issue from being relitigated in a district court. Unsurprisingly, this opens the door to considering a similar situation with the TTAB's sister administrative body, the PTAB. Many IPRs are filed in light of parallel district court litigation, which is often stayed. As such, the PTAB may be the first to consider issues of claim construction. Could the PTAB's decision trigger issue preclusion on that issue? The next subsection explores that possibility in light of *B & B Hardware*.

C. *Could PTAB Claim Constructions Trigger Issue Preclusion in District Courts, Even Post-Cuozzo?*

B & B Hardware clearly opens the door to the possibility of issue preclusion as to claim construction based on a PTAB decision. The analysis in *B & B Hardware* strongly suggests that PTAB claim constructions in IPRs, PGRs, and CBMs could have preclusive affect in the district courts.¹⁶⁰ These procedures, like TTAB oppositions, are adversarial in nature and are designed to be similar to district court litigation.¹⁶¹ They are of course streamlined, but there is some opportunity for discovery. There is considerable similarity between the TTAB's opposition proceedings and the PTAB's various post-issuance adversarial proceedings. The Federal Circuit has noted the potential for issue preclusion to arise from a PTAB claim construction, although it seemed to be skeptical it could arise.¹⁶²

¹⁵⁸ *Id.*

¹⁵⁹ *Id.* at 1310.

¹⁶⁰ In a non-precedential decision, the Federal Circuit recently rejected issue preclusion as to claim construction within the PTAB based on district court litigation because the issue had not been actually litigated. *See Cf.* In re L.F. Centennial Ltd. 2015-1931, slip op. at 9 (Fed. Cir. June 29, 2016)

¹⁶¹ *See* H.R. REP. NO. 112-98, at 68 (2011) *as reprinted in* 2011 U.S.C.C.A.N. 67, 92 (describing PGR as a 'court-like proceeding'); *see also* In re Cuozzo Speed Techs. LLC, 793 F.3d 1268, 1285 (Fed. Cir. 2015), *cert. granted sub nom.* Cuozzo Speed Techs. LLC v. Lee, 136 S. Ct. 890 (2016) ('Now, the America Invents Act not only authorizes the PTO to conduct litigation-type adversarial proceedings to decide patent validity, but also authorizes such proceedings even when there is no 'controversy' under Article III.')

¹⁶² *SkyHawke Techs. LLC v. Deca Int'l Corp.* No. 2016-1325, 2016 WL 3854162, at *2 (Fed. Cir. July 15, 2016) ('While administrative decisions by the U.S. Patent and Trademark Office can ground issue preclusion in district court when the ordinary elements of issue preclusion are met.

Of course, after *Cuozzo*, the standard for claim construction at the PTAB differs from that in district courts.¹⁶³ One could argue that because the Supreme Court kept the BRI standard, issue preclusion *per se* should not apply because the legal standards differ between PTAB proceedings and district court litigation.¹⁶⁴ Additionally, because the PTAB does not use earlier prosecution histories as frequently as they are used in district court litigation, one could argue that there remain significant differences between claim construction at the PTAB and the district courts. Consequently, there should be no issue preclusion.¹⁶⁵

B & B Hardware, however, suggests that such differences likely cannot result in a categorical exclusion of the use of issue preclusion. The differences among the circuit courts as to the assessment of the likelihood of consumer confusion are far more varied than the differences between the *Phillips* and BRI standards. The Court in *B & B Hardware* refused to allow even those wide variations from creating a categorical exclusion of issue preclusion.

Moreover, it is not entirely clear how truly different the BRI and *Phillips* standards are. Many people have wondered whether there is any difference in the vast majority of cases.¹⁶⁶ Any interpretation must be ‘reasonable, which may account for surrender of claim scope through the specification itself. If the PTAB claim construction relies upon the patentee’s lexicography in the specification, then the standard very well may be the same. Patentees in IPRs and PGRs are in a different posture than in litigation. They very well may argue for narrower interpretations claims. In contrast, in litigation, they often argue for broader interpretations to ensure that the accused device is covered by the claim.¹⁶⁷ So, it may be important to prevent relitigation of the issue.¹⁶⁸ One key difference could be the tendency of the PTAB not to rely on earlier prosecution histories, which could cause differences. If

we cannot foresee how the claim construction reached by the Board in this case could satisfy those ordinary elements.”). Issue preclusion was not squarely presented to the court in this case, however. Instead, it was addressing whether a party that prevailed at the PTAB could nevertheless appeal a claim construction determination that it did not like. *Id.* at *1. The court rejected the appeal. *Id.*

¹⁶³ Assuming, of course, that the patent at issue has not expired. See *supra* note 53.

¹⁶⁴ Cf. *SkyHawke*, 2016 WL 3854162, at *2 (“Because the Board applies the broadest reasonable construction of the claims while the district courts apply a different standard of claim construction as explored in *Phillips v. AWH Corp.* 415 F.3d 1303 (Fed. Cir. 2005) (en banc), the issue of claim construction under *Phillips* to be determined by the district court has not been actually litigated.”).

¹⁶⁵ The same claim construction issue must also be presented, and there could be differences in the terms at issue for purposes of validity as opposed to infringement.

¹⁶⁶ See, e.g. Scott A. McKeown, *PTAB Finds BRI Claim Construction No Different under Phillips*, PATENTS POST-GRANT (July 15, 2014), <http://www.patentspostgrant.com/ptab-finds-bri-claim-construction-no-different-than-phillips-analysis> (“Phillips may be different from the BRI in name only.”) (last visited June 29, 2016).

¹⁶⁷ See *supra* notes 61-63 and accompanying text.

¹⁶⁸ The patent holder could also be subject to judicial estoppel if they truly change their position between the TTAB and district court. Cf. *In re L.F. Centennial Ltd.* 2015-1931, slip op. at 9 (Fed. Cir. June 29, 2016) (considering but rejecting judicial estoppel within the PTAB based on claim construction representations at the district court).

the patentee is successful at the PTAB, it very well may be that the legal standard does not vary.

Also different from TTAB proceedings are the statutory estoppel provisions found in the various post-issuance proceedings in the PTAB.¹⁶⁹ These provisions could suggest that Congress intended for issue preclusion to not apply in the PTAB context. These statutory estoppel provisions preclude a party challenging the patent from relitigating in the district courts any issues it actually raised or could have raised at the USPTO. These provisions, however, are tied to the 'grounds' raised within the proceeding. Claim construction is not such a "ground, so seemingly issue preclusion could still apply in a manner distinct from the statutory estoppel provisions. Nevertheless, these estoppel provisions may provide evidence that Congress intended to displace classic collateral estoppel.

The streamlined nature of the PTAB proceedings is also not a reason to refuse to apply issue preclusion. The Supreme Court rejected a similar argument that the streamlined nature of the TTAB opposition hearings should render issue preclusion inapplicable. TTAB also hearings are rather streamlined, and decisions are based solely on written materials with no testimony allowed.¹⁷⁰ Nevertheless, 'the TTAB allows parties to submit transcribed testimony, taken under oath and subject to cross-examination, and to request oral argument.'¹⁷¹ In many ways, opposition hearings are 'similar to a civil action in a federal district court.'¹⁷² The streamlined nature of PTAB proceedings, like TTAB proceedings, likely does not suggest that Congress did not intend to refuse the application of issue preclusion to PTAB findings.

Another difference that could suggest that Congress did not intend PTAB decisions in these proceedings to have preclusive effect is the lack of a *de novo* review by a district court. A final decision by the PTAB in IPRs, PGRs, and CBMs can only be appealed to the Federal Circuit.¹⁷³ This differs from the TTAB, where such *de novo* review is available. The Court also recognized that these proceedings were not entirely about expediency, given the availability of a *de novo* review in district courts.¹⁷⁴ Consequently, there was nothing evident about opposition proceedings to

¹⁶⁹ 35 U.S.C. § 315(e) (2013) (petitioner estopped before USPTO, district courts, and ITC "on any ground that the petitioner raised or reasonably could have raised during that inter partes review"); see also 35 U.S.C. § 325(e) (2013) (petitioner estopped before USPTO, district courts, and ITC "on any ground that the petitioner raised or reasonably could have raised during that post-grant review.").

¹⁷⁰ *Id.* at 1300.

¹⁷¹ *B & B Hardware, Inc.* 135 S.Ct. at 1300.

¹⁷² *Id.* (quoting TRADEMARK TRIAL AND APPEAL BOARD, MANUAL OF PROCEDURE § 102.03 (2014)).

¹⁷³ See 35 U.S.C. § 319 (2013) (permitting appeals from IPRs only under 35 U.S.C. §§ 141-44, which are specific to Federal Circuit); see also 35 U.S.C. § 329 (2013) (permitting appeals from PGRs (and therefore CBMs) only under 35 U.S.C. §§ 141-44, which are specific to Federal Circuit).

¹⁷⁴ *Id.* at 1306 ("Here, if a streamlined process in all registration matters was particularly dear to Congress, it would not have authorized *de novo* challenges for those 'dissatisfied' with TTAB deci-

suggest that Congress did not intend issue preclusion to apply to TTAB decisions. It suggests that, unlike TTAB proceedings, expediency truly drove Congress in creating these procedures.¹⁷⁵ There is much in the legislative history to support this view.

These structural differences, however, are not sufficient in my opinion. In many ways the PTAB proceedings more closely mirror district court litigation than TTAB hearings. The lack of de novo review seems to be a minor aspect of the Court's reasoning in *B & B Hardware*. As for the estoppel provisions, they apply primarily to the arguments on validity, not claim construction, and are limited to the petitioners, not the patent owner. Issue preclusion, therefore, would have a different form of application than the statutory estoppel provisions.¹⁷⁶

V. Conclusion

IPRs have proven to be an immensely popular alternative or complement to district court litigation. They undeniably have altered our patent system. The PTAB may also, indirectly and directly, have a broader impact on claim construction in the district courts. Indirectly, the PTAB's recent refusal to narrow claims based on argumentation may impact the ability of district courts to rely upon prosecution disclaimer. If no disclaimer by argument is allowed, then it would seem the district courts will have nothing upon which to draw. Additionally, even with the Supreme Court retaining the USPTO's BRI standard for claim construction, there is a real possibility that PTAB claim constructions in IPRs, PGRs, and CBMs could have preclusive effect in the district courts. If so, then litigants in these proceedings at the USPTO will have even greater incentives to appeal to the Federal Circuit so that the court, and not the USPTO, has the final say on the meaning of the claim terms. Given the influx of PTAB appeals at the Federal Circuit, this outcome may not be desirable from a structural viewpoint. Regardless, the PTAB is positioned to have a considerable impact on the law of claim construction.

sions.”).

¹⁷⁵ H.R. REP. NO. 112-98, at 48 (2011) *as reprinted in* 2011 U.S.C.C.A.N. 67, 78 (stating “the purpose of the section as providing quick and cost effective alternatives to litigation.”).

¹⁷⁶ There is a burden of proof difference between the courts and the PTAB. Because patents are presumed valid in litigation, a party must prove invalidity under the clear and convincing standard. *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S.Ct. 2238, 2242 (2011). The burden of proof in PTAB proceedings, however, is a preponderance of the evidence. 35 U.S.C. § 316(e) (2013). The burden of proof, however, is irrelevant for claim construction, which is not governed by these burdens of proof.

The Youngest Patent Validity Proceeding: Evaluating Post-Grant Review

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Introduction

Of the three major *ex post* patent validity challenge mechanisms that the 2011 Leahy-Smith America Invents Act¹ put into place, the third is beginning to show signs of use. Post-grant review is an administrative proceeding of remarkable breadth as compared both to *inter partes* review and to the transition program for covered business method patents. Thus far, however, patent challengers have made very limited use of post-grant reviews: in the four years since the procedure became available, the United States Patent and Trademark Office has received only twenty-one petitions for post-grant review. By contrast, the agency has received over 4,000 petitions for *inter partes* review and over 400 petitions for covered business method review during the same period. Although post-grant review's higher relative cost may play a role in this differential usage going forward,² the primary obstacle to its use so far has been structural.

By its terms, post-grant review is available only to challenge patents that have issued from applications filed under the new 'first inventor to file' framework of the America Invents Act.³ That framework went into effect on March 16, 2013, eighteen months from the AIA's enactment.⁴ Even the earliest patent applications made under the first-inventor-to-file regime, then, could only recently have begun to emerge from the patent examination process and become eligible for post-grant review challenges. For U.S. patent applications that are ultimately issued as patents, estimated average examination pendency is 2.79 years.⁵ So the delay in post-grant review's usage is understandable.

¹ Pub. L. No. 112-29 (2011).

² A standard petition for post-grant review (challenging up to 20 claims) carries a basic cost of \$30,000 (a filing fee of \$12,000 and an institution fee of \$18,000 fee if the USPTO determines that the petition deserves to be adjudicated on its merits). The same fee applies to covered business method reviews. *Inter partes* review, however, carries a somewhat lower cost of \$23,000 (a filing fee of \$9,000 and an institution fee of \$14,000 fee if the USPTO determines that the petition deserves to be adjudicated on its merits). See generally USPTO, CURRENT FEE SCHEDULE, available at www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule.

³ Prior to the America Invents Act, U.S. patent law operated under a 'first to invent' framework in which priority of ownership in patented inventions favored those who were (demonstrably) the first to invent. *Patent Law—Patentable Subject Matter—Leahy Smith America Invents Act Revises U.S. Patent Law Regime.—Leahy-Smith America Invents Act*, Pub. L. No. 112-29, 125 Stat. 284 (2011) (to be Codified in Scattered Sections of 35 U.S.C.), 125 HARV. L. REV. 1290 (2012). In fact, one of Congress's leading concerns in enacting the AIA was that under existing U.S. patent law, even if later comers had already obtained one or more patents to a given invention, the first inventor could unsettle that allocation of rights, and the result was contentious and expensive litigation. See generally Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 Fed. Circuit B.J. 435, 453–465 (2011) (discussing the legislative debate).

⁴ Pub. L. No. 112-29 § 3(n)(1).

⁵ UKIPO & USPTO, PATENT BACKLOGS, INVENTORIES AND PENDENCY: AN INTERNATIONAL FRAMEWORK 76 (2013), available at www.gov.uk/government/uploads/system/uploads/attachment_data/file/311239/ipresearch-uspatlog-201306.pdf.

Nevertheless, an initial empirical and institutional analysis of post-grant review is now timely. A great and growing body of empirical research is now emerging on the uses (and potential abuses) of *inter partes* review and covered business method review proceedings, and this research has important lessons for empirical analysis of post-grant review.⁶ Legal challenges have also been mounted against the very framework in which the America Invents Act's patent validity review mechanisms operate; these legal policy debates, too, bear directly on how post-grant review will function and how effective it will be in achieving its intended aims.⁷

The purpose of this Article is to frame that initial analysis of post-grant review and, in particular, to offer suggestions for empirically evaluating salient institutional features of *ex post* patent validity review in the administrative agency setting of the USPTO.

I. Error Correction in the Patent System

The origins of agency error in patent examination are now increasingly well understood both as a theoretical matter and an empirical one. Even under the best of circumstances, the *ex ante* evaluation of patent applications would be a process with attendant error costs. The issuance of U.S. patent rights is consciously designed as a precursor to transactions and assessments of economic value that are revealed later, in the market.⁸ This market-oriented view of the economic value of patent rights is a long-established premise in patent doctrine itself, particularly the doctrine of utility.⁹ As a result, the process of patent examination must conceptually be limited

⁶ E.g. Saurabh Vishnubhakat, Arti K. Rai & Jay P. Kesan, *Strategic Decision Making in Dual PTAB and District Court Proceedings*, 31 BERKELEY TECH. L.J. 45 (2016); Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHI. L. REV. DIALOGUE 93 (2014).

⁷ Most prominently, the Supreme Court recently decided *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131 (2016). The Court held in *Cuozzo* that the USPTO Patent Trial and Appeal Board may construe patent claims in an *inter partes* review using a different standard (broadest reasonable interpretation) than the one that U.S. district courts use (ordinary meaning as understood by one of ordinary skill in the art), and that the USPTO's statutorily nonreviewable decision to institute an *inter partes* review remains unreviewable even after a final agency order has been entered and despite the presumption of judicial review built into the Administrative Procedure Act. These holdings have direct import for post-grant review as well. See Vishnubhakat et al., *supra* note 6.

⁸ More precisely, patents as legal rights are tradable assets upon which markets for technology and knowledge can, and do, take shape. For a succinct overview of the economic literature describing this type of market formation, see Daniel F. Spulber, *How Patents Provide the Foundation of the Market for Inventions*, Northwestern Law & Econ Research Paper No. 14-14 (June 2014), available at www.ssrn.com/abstract=2487564; Ashish Arora & Alfonso Gambardella, *The Market for Technology*, in 1 HANDBOOK OF THE ECONOMICS OF INNOVATION (Bronwyn H. Hall & Nathan Rosenberg, eds.) (2010); Stuart J.H. Graham et al. *High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey*, 24 BERKELEY TECH. L.J. 1255 (2009); ASHISH ARORA, ANDREA FOSFURI & ALFONSO GAMBARDELLA, *MARKETS FOR TECHNOLOGY: THE ECONOMICS OF INNOVATION AND CORPORATE STRATEGY* (2001).

⁹ E.g. *Lowell v. Lewis*, 1 Mason. 182 (1817). In *Lowell*, Justice Story consciously—and momentarily, for it has survived largely intact into the present day—endorsed a low bar for satisfying the

to evaluating the technological, rather than economic, merits of an invention. Modern USPTO practice reflects this emphasis by requiring that the agency's patent examiners as well as the practitioners who are permitted to practice before the agency must possess technical training in science or engineering disciplines—while requiring no background or training in business, economics, finance, or other such fields.¹⁰ To this best-case limitation, of course, must also be added practical constraints such as agency infrastructure, budgetary uncertainty, and personnel issues.¹¹

So the examination process will, and does, produce both false-positive errors and false-negative ones by granting patents that, in retrospect, should have been denied and by denying patents that should have been granted. A rich debate persists on the theoretical implications of these errors, particularly the effect that they have on substantive patent doctrine, given that applicants can appeal decisions to deny a patent whereas the agency (or anyone else) cannot directly appeal decisions to grant a patent.¹² Also prominent in this theoretical debate is the statutory presumption of patentability, under which the burden lies not with the applicant to show that a patent should issue but rather with the examiner to show that a patent should not issue.¹³

requirement that an invention must be "useful" in order to be patentable. The invention, he explained, need not be an improvement upon the state of the art, but merely accomplish its intended objective without injury to public mores. In other words, utility does not require an *ex ante* showing of marginal economic value over and above what is currently available in the market. If the invention does prove to be "not so extensively useful, it will silently sink into contempt and disregard"—i.e. market forces themselves will deliver any deserved economic punishment. *Id.*

¹⁰ See USPTO Office of Enrollment & Discipline, GENERAL REQUIREMENTS BULLETIN FOR ADMISSION TO THE EXAMINATION FOR REGISTRATION TO PRACTICE IN PATENT CASES BEFORE THE UNITED STATES PATENT AND TRADEMARK OFFICE 4 (discussing scientific and technical training requirements for admission to the patent registration examination), *available at* www.uspto.gov/sites/default/files/OED_GRB.pdf.

¹¹ See USPTO, PERFORMANCE & ACCOUNTABILITY REPORT FISCAL YEAR 2015 22–24 (2016), *available at* www.uspto.gov/sites/default/files/documents/USPTOFY15PAR.pdf (discussing management challenges, particularly sustainable funding and IT infrastructure). The budgetary uncertainty of the agency's operations arises primarily from its reliance on the decisions of potential applicants to file new patent applications as well as existing patent owners to pay maintenance fees to keep current patents in force. *Id.* at 29–46. The USPTO's personnel decisions are constrained by an extensive collective bargaining agreement that has been in force, with modifications, for thirty years. See AGREEMENT BETWEEN U.S. DEPARTMENT OF COMMERCE/PATENT AND TRADEMARK OFFICE AND THE PATENT OFFICE PROFESSIONAL ASSOCIATION (1986), *available at* www.popa.org/static/media/uploads/Agreements/cba.pdf.

¹² See Melissa F. Wasserman, *The PTO's Asymmetric Incentives: Pressure to Expand Substantive Patent Law*, 72 OHIO ST. L.J. 379 (2011); Jonathan S. Masur, *Patent Inflation*, 121 YALE L.J. 470 (2011); Arti K. Rai, *Who's Afraid of the Federal Circuit?*, 121 YALE L.J. ONLINE 335 (2011) (replying to Masur); Lisa Larimore Ouellette, *What Are the Sources of Patent Inflation? An Analysis of Federal Circuit Patentability Rulings*, 121 YALE L.J. ONLINE 347 (2011) (replying to Masur); Jonathan S. Masur, *Inflation Indicators*, 121 YALE L.J. ONLINE 375 (2012) (surreplying to Rai and Ouellette).

¹³ See Sean B. Seymore, *The Presumption of Patentability*, 97 MINN. L. REV. 990 (2013).

No less important than these theoretical accounts is considerable empirical evidence that patent value is not distributed uniformly but is concentrated in relatively few patents and patent portfolios. Patents that are selected for litigation are more likely to be of high value than to be of low value.¹⁴ Meanwhile, patents (like legal rights more generally) that are of uncertain validity are more likely to be selected for litigation than are patents whose validity or invalidity is apparent.¹⁵

Thus, patent examination exists under a combination of inevitable agency error when evaluating inventions for patentability, structurally asymmetric agency process in granting patents versus denying them, and unforeseeably distributed value across those patents that will eventually bring about the social and economic consequences of the agency error. Put another way, we know that some bad patents will go out into the world but cannot know *beforehand*—in the agency examination process—which ones will eventually be both of poor-enough quality to pose real economic harm and valuable enough to litigate and find out. It is perhaps unsurprising, then, that the prevailing view of patent examination is that it proceeds under a veil of rational ignorance,¹⁶ where patent examiners seek information about patentability using only finite resources that do not exceed the value of the information itself.¹⁷

Rational ignorance, however, is still only a descriptive claim about how patent examination works: how it ought to work is a separate matter. Of the two aforementioned types of patent examination errors that the USPTO may commit—improper grants and improper denials—the latter are generally of less concern because administrative and judicial review are available for applicants to challenge such denials. To be sure, these are not panaceas for overly aggressive patent denials, which also represent a dynamic social cost in the form of lost incentives for inventors to invest in future research.¹⁸ The cost and delay of such additional legal process can be prohibitive, particularly for small firms and independent inventors. Nevertheless, the *de jure* unavailability of appeal for improper grants means that, whatever potential amount of social cost may be at stake from patents that should not have been granted, the cost cannot be mitigated *ex ante* through direct administrative or judicial review. The errors must be corrected *ex post*.

¹⁴ See John R. Allison et al. *Valuable Patents*, 92 GEO. L.J. 435 (2004).

¹⁵ Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L. REV. 237, 243 (2006). For the generalized theoretical discussion, see George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984).

¹⁶ See Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. UNIV. L. REV. 1495 (2001).

¹⁷ *Id.* (citing RALPH T. BYRNS & GERALD W. STONE, *ECONOMICS* 433 (4th ed. 1989), and MANCUR OLSON, *RATIONAL IGNORANCE, PROFESSIONAL RESEARCH, AND POLITICIANS' DILEMMAS*, IN *KNOWLEDGE, POWER AND THE CONGRESS* 130 (William H. Robinson & Clay H. Wellborn eds. 1991)).

¹⁸ Andres Sawicki, *Better Mistakes in Patent Law*, 39 FLA. ST. U. L. REV. 735, 760–761 (2012).

Proposals for *ex post* correction fall into two broad categories that correspond to the institutions that bear the duty to correct: litigation in federal courts and administrative reevaluation in the USPTO.

II. Correction through Litigation

The traditional mode of defeating improperly granted patents has been litigation, either as a defense to a patent owner-initiated lawsuit that itself alleges infringement,¹⁹ or else as a preemptive lawsuit seeking declaratory judgment that a patent is invalid or, at the least, not infringed by the party seeking relief.²⁰ Both modes of litigation-based error correction, however, are subject to important constraints.

A. What the Stakes Are

A primary constraint is cost. Patent litigation, even for declaratory judgments, can be quite expensive. Biannual economic survey data from the American Intellectual Property Law Association suggests, for instance, that the median cost of patent infringement litigation is \$700,000 in low-stakes cases, i.e., where less than \$1 million is in controversy. In cases of the highest stakes, where more than \$25 million is in controversy, the median cost of infringement litigation rises to some \$5.5 million. Table 1 summarizes recent trends in this regard.

Table 1. Median Patent-Infringement Litigation Costs (Thousands)²¹

Amount in Controversy	2005	2007	2009	2011	2013
< \$1M	\$650	\$600	\$650	\$650	\$700
\$1M–\$10M	n/a	n/a	n/a	n/a	\$2,000
\$10M–\$25M	n/a	n/a	n/a	n/a	\$3,325
\$1M–\$25M	\$2,000	\$2,500	\$2,500	\$2,500	\$2,600
> \$25M	\$4,500	\$5,000	\$5,500	\$5,000	\$5,500

High cost, in turn, affects the ability of litigation to serve a meaningful role in error correction. Cost creates an incentive to settle a case even where the merits of the case are questionable simply because it would be economically irrational under the circumstances to litigate to vindication.²² A notable source of this patent settle-

¹⁹ 35 U.S.C. §§ 282(b)(1)–(2).

²⁰ 28 U.S.C. § 2201(a).

²¹ AM. INTEL. PROP. LAW ASS'N, REPORT OF THE ECONOMIC SURVEY 34 (2013) [hereinafter AIPLA Survey].

²² Saurabh Vishnubhakat, *What Patent Attorney Fee Awards Really Look Like*, 63 DUKE L.J. ONLINE 15, 17 (2014); Colleen V. Chien, *Reforming Software Patents*, 50 HOUS. L. REV. 325, 340–42 (2012); David Rosenberg & Steven Shavell, *A Model in Which Suits Are Brought for Their Nuisance Value*, 5 INT'L REV. L. & ECON. 3 (1985).

ment calculus, though by no means all of it, is the American Rule of litigation, under which each side presumptively pays its own costs regardless of who prevails.²³ The patent statute does provide for fee shifting akin to the English rule, but only in ‘exceptional’ cases,²⁴ leaving most patent lawsuits subject to ordinary settlement incentives.

Customarily, the American Rule is defended as a guarantor of fairness and access to justice: the uncertainty of litigation suggests both that ‘one should not be penalized for merely defending or prosecuting a lawsuit’ and that ‘the poor might be unjustly discouraged from instituting actions to vindicate their rights if the penalty for losing included the fees of their opponents’ counsel.²⁵

The settlement incentive in patent litigation, however, turns this logic on its head: the private benefit of an improperly granted patent rests with the patent-owning plaintiff who asserts it in litigation, and the resource-constrained party that is at risk of settling a questionable lawsuit is the defendant. In such cases, concern for access to justice would counsel in favor of fee-shifting to protect the weaker party’s ability to defend itself. In practice, this is exactly the argument that has been advanced for Congress or the courts to broaden the reach of fee-shifting in patent cases.

At least as to the courts, the argument has succeeded in a pair of recent cases before the Supreme Court. In *Octane Fitness, LLC v. Icon Health & Fitness, Inc.*, the Court held that for fee shifting under § 285, [d]istrict courts may determine whether a case is ‘exceptional’ in the case-by-case exercise of their discretion, considering the totality of the circumstances.²⁶ The Court explained that this flexible view of exceptionality—i.e. amenability to finding that a particular case does, indeed, warrant fee shifting—was more consistent with the statute than was the ‘overly rigid’ approach of the Federal Circuit.²⁷ In the companion case *Highmark Inc. v. Allcare Health Management System, Inc.*, the Court further held that ‘an appellate court should review all aspects of a district court’s § 285 determination for abuse of discretion’ rather than *de novo*, as was the Federal Circuit’s practice.²⁸ The cumulative effect of these decisions is to give district courts not only greater ability to find a case exceptional and shift fees but also greater immunity from appellate reversal. Indeed, the first empirical studies into the effects of *Octane Fitness* and *Highmark* suggest that these decisions have increased attorney fee shifting to a statistically

²³ Vishnubhakat, *supra* note 22, at 19. See generally John F. Vargo, *The American Rule on Attorney Fee Allocation: The Injured Person’s Access to Justice*, 42 AM. U. L. REV. 1567 (1993). The English Rule, by contrast, presumptively provides that the non-prevailing party in litigation pays the expenses of the prevailing party.

²⁴ 35 U.S.C. § 285.

²⁵ *Fleishmann Distilling Corp. v. Maier Brewing Co.* 386 U.S. 714, 718 (1967).

²⁶ 134 S. Ct. 1749, 1756 (2014).

²⁷ *Id.* at 1756–1757.

²⁸ 134 S. Ct. 1744, 1746–1747 (2014).

significant degree.²⁹ By contrast to judicial reforms of patent fee shifting, however, legislative proposals for presumptive or asymmetric fee shifting have made little progress so far.³⁰

Still, fee shifting alone merely lowers the settlement threshold for potentially frivolous claims; it does not eliminate it. The availability of presumptive fee shifting (the loser always pays) means that a defendant's risk-adjusted cost of defending an infringement lawsuit is lower than it would otherwise be. The availability of asymmetric fee shifting (where only a losing patent owner pays a prevailing defendant's expenses while a losing defendant does not pay the prevailing patent owner's expenses) would lower the defendant's risk-adjusted cost even further—but the cost would still not be zero. In all cases, a losing defendant would still be required to pay at least its own expenses, and these expenses could still represent a nontrivial settlement threshold against assertions of questionable patents. To this extent, cost still limits the ability of litigation to correct improper patent grants by the USPTO.

Nor is this limitation unsurprising. The structure of civil litigation in the United States favors settlement, so much so that despite variation across substantive areas of the law, recent estimated aggregate settlement rates are on the order of 66.9 percent and, in certain types of cases, are as high as 87.2 percent.³¹ Yet true error correction in the sense of removing improperly granted patent rights from the market by invalidating them altogether requires courts to adjudicate them on the merits rather than to allow parties to settle.³² This suggests that the settlement-friendly civil litigation paradigm of U.S. law is in tension with the aim of correcting false-positive patent granting errors by the USPTO.

B. Who Can, and Does, Mount the Challenge

Somewhat ironically, while the private settlement calculus is based on costs that are individually *too high* for particular defendants, it also reflects a collective action problem in that the cost to rival defendants of invalidating a questionable patent is *too low* relative to the high social benefit. As the Supreme Court held in the 1971

²⁹ See, e.g. Scott M. Flanz, *Octane Fitness: The Shifting of Patent Attorneys' Fees Moves into High Gear*, 19 STAN. TECH. L. REV. 329 (2016).

³⁰ See Innovation Act, H.R. 9, 114th Cong. § 3(b) (2015). No action has been taken on H.R. 9 since a hearing in February 2016 of the House Committee on Small Business and Entrepreneurship, and given the current election-year dynamics, none is likely before the 114th Congress adjourns. See also Patent Abuse Reduction Act of 2013, S. 1013, 113th Cong. § 5(a) (2013); Patent Litigation Integrity Act of 2013, S. 1612, 113th Cong. § 101(a) (2013). No action was taken either on S. 1013 or on S. 1612 since a hearing in December 2013 of the Senate Committee on the Judiciary.

³¹ Theodore Eisenberg & Charlotte Lanvers, *What Is the Settlement Rate and Why Should We Care?*, 6 J. EMPIRICAL LEG. STUD. 111, 115, 130 (2009).

³² Megan M. La Belle, *Against Settlement of (Some) Patent Cases*, 67 VAND. L. REV. 375, 398–401 (2014) (arguing essentially that the prevailing strong set of incentives for settlement in patent cases “achieves peace instead of justice”).

Blonder-Tongue case, when a patent is adjudged invalid (and all appeals have been exhausted), the patent is invalid not only against the party and for purposes of the given case, but invalid altogether.³³ Therefore, a particular defendant must consider that invalidating a patent will not only benefit it but will also benefit all other potential defendants, some or even many of whom may be its competitors.³⁴ In this sense, patent invalidity judgments are public goods that are susceptible to familiar problems of free riding and undersupply.³⁵

This need not be the case, of course. Even without returning to a pre-*Blonder-Tongue* world in which invalidity judgments benefit only the defendants or declaratory judgment plaintiffs who have invested in them, the collective action problem of who *will* pursue an invalidity judgment can be addressed through the rules governing who *can* do so, by relaxing the requirements of who has standing to challenge patents.

Proposals to expand standing in patent cases are a growing literature. Treating the validity of patents as a matter of public rather than private law, for example, would warrant generous rules of standing (and personal jurisdiction, as the case may be) to invite litigation-based challenges.³⁶ Closely related to this public-law approach is the view that separation-of-powers concerns are diminished in the patent context.³⁷ As the argument goes, courts should ordinarily limit themselves from hearing cases aimed at vindicating ‘the undifferentiated public interest’ that is properly committed to executive branch.³⁸ The USPTO is an exception, however, as its executive agency powers do not include substantive rulemaking authority³⁹ and implicitly leave much doctrinal development in patent law to the expertise of the Federal Circuit.⁴⁰ Perhaps most direct in its attempt to resolve collective action

³³ More precisely, the defeated patent owner is collaterally estopped to relitigate the patent’s validity in future cases, either against the same party or against any other parties. *Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation*, 402 U.S. 313 (1971).

³⁴ Joseph Scott Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 *BERKELEY TECH. L.J.* 667, 687–688 (2004).

³⁵ *Id.*

³⁶ Megan M. La Belle, *Patent Law As Public Law*, 20 *GEO. MASON L. REV.* 41 (2012). Similar in this regard is the view that patent invalidity challenges ought to be treated in the law explicitly as a species of public interest litigation with commensurately broad access to federal courts. *E.g.* Amelia Smith Rinehart, *Patent Cases and Public Controversies*, 89 *NOTRE DAME L. REV.* 361 (2013) (discussing trends in the case law that may point the way toward standing reform in patent litigation); Gaia Bernstein, *The Rise of the End User in Patent Litigation*, 55 *B.C.L. REV.* 1443 (2014) (focusing on the availability of standing for end users of patented inventions); Kali N. Murray, *Rules for Radicals: A Politics of Patent Law*, 14 *J. INTELL. PROP. L.* 63 (2006) (arguing for standing in patent cases using environmental law as a template).

³⁷ Nicholas D. Walrath, *Expanding Standing in Patent Declaratory Judgment Actions to Better Air Public Policy Considerations*, Note, 88 *N.Y.U. L. REV.* 476, 506–508 (2013).

³⁸ *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 577 (1992).

³⁹ *Merck & Co. v. Kessler*, 80 F.3d 1543, 1549–50 (Fed. Cir. 1996).

⁴⁰ Walrath, *supra* note 37, at 506–508. *Cf.* Sapna Kumar, 44 *U.C. DAVIS L. REV.* 1547 (2011) (discussing the Federal Circuit’s expertise in patent law as that expertise relates to the deference that the court should give to an expert agency whose decisions the court reviews—in the context of the

concerns is the view that standing to challenge patent validity should be aligned both with existing incentives to bring such challenges at all and, more specifically, with incentives to bring socially desirable types of validity challenges.⁴¹

Yet these views of patent law as public law akin to regulation rather than private law akin to property, and of patent examination as conferring public rights rather than private rights is itself contested,⁴² and thus far, neither enacted patent reforms nor proposed legislation has taken up the broader view of standing as a tractable solution to the collective action problem that arises in using litigation to correct false-positive patent granting errors by the USPTO.

C. Who Decides

Finally, apart from questions of litigation cost and litigation incentive, there remains the third issue of adjudicative expertise. The problem of expertise takes two forms: doctrinal and technological. In turn, each form of expertise awaits two sets of decision-makers in the courts: judges and juries.

Judges have long been called upon to exercise both doctrinal expertise in patent law and technological expertise with respect to the inventions that particular patents cover. On first impression, the generalist nature of the federal judiciary might suggest a poor fit for patent doctrine. Patent law in its complexity is matched by only a few other fields, such as tax and bankruptcy.⁴³ At the same time, whereas Congress has established specialized courts to respond to cultivate expertise in the complexities of tax law⁴⁴ and bankruptcy law⁴⁵ as an initial matter, formal specialization in patent law is different in two important respects.

International Trade Commission).

⁴¹ Michael J. Burstein, *Rethinking Standing in Patent Challenges*, 83 GEO. WASH. L. REV. 498 (2015). *But see* John F. Duffy, *Standing to Challenge Patents, Enforcement Risk, and Separation of Powers*, 83 GEO. WASH. L. REV. 628 (2015).

⁴² Wayne A. Kalkwarf, *Stop in the Name of the PTO! A Review of the Fresenius Saga and PTO-Judicial Interplay*, 22 J. INTELL. PROP. L. 315, 339–340 (2015); Michael Rothwell, *Patents and Public Rights: The Questionable Constitutionality of Patents before Article I Tribunals after Stern v. Marshall*, 13 N.C. J. L. & TECH. 287, 340–341 (2012); Margaret L. Moses, *What the Jury Must Hear: The Supreme Court's Evolving Seventh Amendment Jurisprudence*, 68 GEO. WASH. L. REV. 183, 233n.347 (discussing *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 604 (Fed. Cir. 1985)); La Belle, *supra* note 36, at 98–100.

⁴³ *See* Samuel S. Adelsberg, *Bouncing the Executive's Blank Check: Judicial Review and the Targeting of Citizens*, 6 HARV. L. & POL'Y REV. 437, 446 (2012) (likening patent law to bankruptcy and taxation in that all three are "particularly complex issues requiring unique knowledge"); Glenn M. Sulmasy & Andrea K. Logman, *A Hybrid Court for a Hybrid War*, 42 CASE W. RES. J. INT'L L. 299, 303 (2009) (same).

⁴⁴ For an overview of the tax court system *see* Leandra Lederman, *Tax Appeal: A Proposal to Make the United States Tax Court More Judicial*, 85 WASH. U. L. REV. 1195, 1203–1216 (2008).

⁴⁵ For an overview of the bankruptcy court system, *see* Daniel J. Bussel, *Power, Authority, and Precedent in Interpreting the Bankruptcy Code*, 41 UCLA L. REV. 1063, 1065–1071 (1994).

First, the U.S. Court of Appeals for the Federal Circuit, which has exclusive jurisdiction over cases of patent infringement,⁴⁶ is an appellate body and so only sees that small fraction of patent cases which are appealed from final judgment—and, even then, only as initially framed by largely generalist trial judges. Tax and bankruptcy judges, by contrast, work under and with the federal trial judiciary and so bring their expertise to bear much more directly on the legal complexity to which they are charged with responding. Second, even the Federal Circuit as a specialized court of appeals is of relatively recent vintage, created in 1982.⁴⁷ By contrast, the federal tax court system in various forms dates from 1924,⁴⁸ making it three times as old as the Federal Circuit when the America Invents Act was enacted.

Nevertheless, the complexity of patent law has still produced extensive specialization at the trial court level—but informally rather than formally. It is now a well-established set of findings in the empirical literature that a disproportionately large number of patent cases are filed in only a few judicial districts,⁴⁹ that relatively few district judges see the bulk of these patent cases,⁵⁰ and that this repeated exposure to and experience with patent litigation has significant, and mixed, impacts on the patent law expertise of these judges.⁵¹ In fact, it was in order to formalize, at least partly, this preexisting trend toward specialization that Congress in 2011 (separately from the America Invents Act) enacted the Patent Cases Pilot Program, providing that judges in select judicial districts with sufficient patent caseloads may opt into—and opt out of—hearing patent cases that would otherwise have been randomly assigned to a judge without regard for her expertise or interest in patent law.⁵²

Despite these trends and policy experiments, however, patent law still poses a challenge for the generalist federal judiciary because of another necessary dimension of expertise: technology. Patents are intended to be granted only to sufficiently innovative inventions,⁵³ and ensuring this level of innovation requires scientific training both on the part of attorneys and agents who translate the inventor's art into legally meaningful arguments and evidence and on the part of USPTO examiners who evaluate their sufficiency. Accordingly, adequate education or experience in a science or engineering discipline is a precondition of both admission to practice before the bar of the USPTO requires scientific training⁵⁴ and employment as a

⁴⁶ 28 U.S.C. § 1292(c).

⁴⁷ Pub. L. No. 97-164 (1982).

⁴⁸ Pub. L. No. 68-175 (1924).

⁴⁹ Saurabh Vishnubhakat, *Reconceiving the Patent Rocket Docket: An Empirical Study of Infringement Litigation 1985–2010*, 11 J. MARSHALL REV. INTELL. PROP. L. 58, 78–80 (2011).

⁵⁰ Jay P. Kesan & Gwendolyn G. Ball, *Judicial Experience and the Efficiency and Accuracy of Patent Adjudication: An Empirical Analysis of the Case for a Specialized Patent Trial Court*, 24 HARV. J.L. & TECH. 393, 420–423 (2011).

⁵¹ *Id.* at 423–443. See also Mark A. Lemley & Shawn P. Miller, *If You Can't Beat 'Em, Join 'Em? How Sitting by Designation Affects Judicial Behavior*, 94 TEX. L. REV. 451 (2016).

⁵² Pub. L. No. 111-349.

⁵³ 35 U.S.C. §§ 102, 103.

⁵⁴ USPTO, GENERAL REQUIREMENTS BULLETIN FOR ADMISSION TO THE EXAMINATION FOR

USPTO examiner.⁵⁵ Federal judges, of course, face no such scientific education or training requirements, and neither do juries.⁵⁶ Through repeated exposure to patent cases, judges at least may cultivate meaningful competence in evaluating scientific arguments,⁵⁷ but even this cannot fully substitute for competence in the underlying scientific subject matter.

Accordingly, proposals to manage the scientific complexity that is inherent in modern patent litigation have often looked—and continue to look—to administrative agency expertise as a source of guidance for the courts. For example, claim construction is a foundational step in resolving patent disputes, for construing the meaning of patent claims that define the boundaries of the invention implicates a wide range of issues pertaining to whether the patent is valid, whether the accused products or processes infringe the patent, and so on.⁵⁸ To construe claims from the perspective of patent law’s familiar ‘person having ordinary skill in the art,’ however, is a scientifically fact-intensive exercise that is not necessarily well-suited to generalist judges.⁵⁹ Relying on the familiar administrative-law doctrine of primary jurisdiction, Professor John Duffy has previously proposed that courts could profitably refer claim construction issues to the USPTO and then rely on the advisory opinion of that expert agency to whatever extent the court found appropriate going forward.⁶⁰

Similarly foundational to construing patent claims is identifying the technological field in which an invention belongs, for taxonomic choices both influence how the person having ordinary skill in the art is to be characterized⁶¹ and what set of prior art is to be deemed relevant in evaluating a patent’s validity.⁶² As I propose in

REGISTRATION TO PRACTICE IN PATENT CASES BEFORE THE USPTO (July 2015), available at www.uspto.gov/sites/default/files/OED_GRB.pdf.

⁵⁵ USPTO, PATENT EXAMINER POSITIONS, available at careers.uspto.gov/Pages/PEPositions/.

⁵⁶ Robin Feldman, *Plain Language Patents*, 17 TEX. INTELL. PROP L.J. 289, 291 (2009); Gregg A. Paradise, *Arbitration of Patent Infringement Disputes: Encouraging the Use of Arbitration Through Evidence Rules Reform*, 64 FORDHAM L. REV. 247, 254 (1995).

⁵⁷ Kesan & Ball, *supra* note 50, at 423–443. See also Judith A. Hasko, *Daubert v. Merrell Dow Pharmaceuticals, Inc. Flexible Judicial Screening of Scientific Expert Evidence Under Federal Rule of Evidence 702*, 1995 WIS. L. REV. 479, 504–505 (1995). In this, judges who regularly oversee patent cases are not unlike those who regularly oversee “toxic tort cases and cases involving high technology.” *Id.*

⁵⁸ J. Jonas Anderson & Peter S. Menell, *Informal Deference: A Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108 NW. U. L. REV. 1, 16 (2013) (recounting the doctrinal history that “made claim construction an essential step in infringement analysis”).

⁵⁹ Greg Reilly, *Judicial Capacities and Patent Claim Construction: An Ordinary Reader Standard*, 20 MICH. TELECOMM. & TECH. L. REV. 243, 266–270 (2014); Joshua R. Nightingale, *An Empirical Study on the Use of Technical Advisors in Patent Cases*, 93 J. PAT. & TRADEMARK OFF. SOC’Y 400, 403 (2011).

⁶⁰ John F. Duffy, *On Improving the Legal Process of Claim Interpretation: Administrative Alternatives*, 2 WASH. U. J.L. & POL’Y 109 (2000).

⁶¹ Saurabh Vishnubhakat, *The Field of Invention*, 45 HOFSTRA L. REV. (forthcoming 2017), at *24–32, available at www.ssrn.com/abstract=2857155.

⁶² *Id.* at *35–38.

detail elsewhere, courts could profitably defer on the USPTO's highly structured technological classifications as informal adjudications of fact deserving arbitrary and capricious review.⁶³ Nevertheless, though administrative law-based tools such as primary jurisdiction and agency deference are valuable ways to bridge the scientific literacy gap in cases that come before the federal courts, error correction on a large scale in patent law has sought an even more dramatic solution: taking cases out of the federal courts altogether and providing for reevaluation entirely in the agency setting itself.

III. The Rise of Administrative Correction

In response to concerns about the high stakes of patent litigation, debates over standing and incentives to litigate patents to conclusion, and the doctrinal as well as scientific expertise needed to adjudicate disputes over patent validity, patent policy actors in the modern era have explicitly reallocated considerable decisionmaking authority away from the courts and into the USPTO. An historical survey of that institutional reallocation is beyond the scope of this Article, but the motivations for the change are well aligned with the aforementioned concerns: to offer cost savings, to resolve collective action problems, and to capitalize on the institutional competence of the expert agency over the relative inexpertise of courts.⁶⁴

A. *Ex Post* Review up to the AIA

Since 1980, third parties who wish to challenge the validity of issued patents have been able to do so through *ex parte* reexamination, an administrative proceeding in which the USPTO considers new evidence and reconsiders prior evidence bearing on the patentability of the claimed invention.⁶⁵ Despite the growth in cost from the early 1980s to the present, *ex parte* reexamination has remained far cheaper than even the lowest-stakes category of patent litigation, has been more accessible to the public, and has, of course, been conducted by expert reexaminers in the USPTO.⁶⁶ Once initiated in the USPTO, however, *ex parte* reexamination was conducted just that way—*ex parte*—with no adversarial dialogue with the patent owner before the reexaminer.⁶⁷ Accordingly, a substantial share of *ex parte* reexaminations over the years, nearly a third, have been brought by patent owners themselves.⁶⁸ These reevaluations undoubtedly reflect patent error correction to some

⁶³ *Id.* at *38–49.

⁶⁴ The following historical discussion of *ex post* review of patent validity in the administrative state as well as the comparative discussion of different review mechanisms created by the AIA are both set forth in a greater detail in Vishnubhakat, et al., *supra* note 6.

⁶⁵ Bayh-Dole Act, Pub. L. No. 96-517, 94 Stat. 3015 (1980).

⁶⁶ Vishnubhakat et al. *supra* note 64, at 56–58.

⁶⁷ Mark D. Janis, *Rethinking Reexamination: Toward a Viable Administrative Revocation System for U.S. Patent Law*, 11 HARV. J.L. & TECH. 1, 6n.12 (1997) (citing Shannon M. Casey, *The Patent Reexamination Reform Act of 1994: A New Era of Third Party Participation*, 2 J. INTELL. PROP. L. 559 (1995)).

⁶⁸ See USPTO, *Ex Parte* Reexamination Filing Data—September 30, 2014,

extent, but the patent owner's incentive in such cases is plainly to clarify and strengthen its own patents rather than to invalidate questionable ones altogether, so that true error correction is more likely to arise adversarially from third parties with sufficient countervailing incentives to balance the self-interest of the patent owner.

To promote third-party participation not only in initiating requests but also in prosecuting them throughout the administrative reconsideration, adversarial *inter partes* reexamination has been available since 1999.⁶⁹ Yet for a variety of reasons, including strong estoppel provisions against subsequent Article III litigation and the prolonged timeline of resolution, *inter partes* reexamination never received much uptake as a serious mode of administrative error correction.⁷⁰

In an effort to reap the structural benefits of *inter partes* reexamination while making its costly estoppel calculus more worthwhile through faster adjudication and a more searching analysis of patent validity, Congress in 2011 established three significant new proceedings by which members of the public could challenge the validity of issued patents.⁷¹ All three are formal adversarial proceedings that originate in the reconstituted USPTO Patent Trial and Appeal Board.⁷² These three proceedings are *inter partes* review, covered business method review, and post-grant review. Each offers a different scope for error correction, and these differences reflect a range of technological, doctrinal, and systemic values.

The system that has seen the most usage thus far is *inter partes* review. In the four years since the proceeding became available,⁷³ patent challengers have filed more than 4,000 petitions for *inter partes* review.⁷⁴ By comparison, the usage of covered business method reviews over the same time period has been an order of magnitude lower, as patent challengers have filed just over 400 petitions.⁷⁵ Usage of post-grant review, in turn, has been another order of magnitude lower, with only 21 petitions filed—and only since August, 2014, though the proceeding was formal-

<http://www.uspto.gov/learning-and-resources/statistics/reexamination-information>.

⁶⁹ American Inventors Protection Act, Pub. L. No. 106-113, 113 Stat. 1501 (1999).

⁷⁰ Vishnubhakat et al. *supra* note 64, at 58–59.

⁷¹ A fourth proceeding, supplemental examination, is not adversarial but rather a mechanism for patent owners to provide new information material to the patentability of their inventions and thus fortify the legal strength of their patent rights. See 35 U.S.C. § 257; 37 C.F.R. §§ 1.601–1.625; MANUAL OF PATENT EXAMINING PROCEDURE Ch. 2800.

⁷² The PTAB was reconstituted from the USPTO's Board of Patent Appeals and Interferences, the administrative tribunal to which old-style patent reexaminations were appealable after initial review before a reexaminer.

⁷³ The *inter partes* review mechanism became available on September 16, 2012, one year from the date of enactment of the America Invents Act.

⁷⁴ Petition data is from the Docket Navigator service. See DOCKET NAVIGATOR, available at www.docketnavigator.com.

⁷⁵ *Id.*

ly available from the same date as *inter partes* and covered business method review.⁷⁶ The particular terms of each proceeding's availability repay closer scrutiny.

B. Differences among AIA Proceedings

With respect to stakes and decision-making authority, all three of the administrative validity reviews under the America Invents Act offer a comparable set of benefits. The basic cost of *inter partes* review itself is \$23,000: a filing fee of \$9,000 and an institution fee of \$14,000 fee if the USPTO determines that the petition deserves to be adjudicated on its merits.⁷⁷ The basic cost of post-grant review and of covered business method review is \$30,000: a filing fee of \$12,000 and an institution fee of \$18,000 fee if the USPTO determines that the petition deserves to be adjudicated on its merits.⁷⁸ Meanwhile, the estimated attorney costs that are associated with pursuing these validity challenges are on the order of \$130,000.⁷⁹ Moreover, all three proceedings are adjudicated by panels of the PTAB with administrative patent judges hired not only for their deep familiarity with patent doctrine but also for their technical expertise.

As to who can bring a validity challenge, the proceedings are similar but not identical. With one important exception, anyone other than the patent owner itself may file an *inter partes* review⁸⁰ as well as a covered business method review and post-grant review.⁸¹ The exception is that the petitioning party must not previously have challenged the validity of the patent in a civil action, such as a declaratory judgment, though a defensive counterclaim asserting invalidity does not trigger this bar.⁸²

However, *inter partes* review differs from the other proceedings in that it is additionally barred if a petitioner who has previously been sued for infringing the patent in question files its petition more than one year after being served with the prior infringement complaint.⁸³ Meanwhile, parties are barred from seeking covered business method review if they have not been sued for infringement under the patent in dispute.⁸⁴

⁷⁶ *Id.*

⁷⁷ USPTO, CURRENT FEE SCHEDULE, available at www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule.

⁷⁸ *Id.*

⁷⁹ Olga Berson, *Challenging Patent Validity Under the AIA: Strategic and Tactical Considerations When Deciding Whether to Pursue Ex Parte Reexamination or Inter Partes Review As Part of the Overall Litigation Strategy*, 2012 WL 6636452, *12 (2012).

⁸⁰ 35 U.S.C. § 311(a).

⁸¹ 35 U.S.C. § 321(a).

⁸² 35 U.S.C. §§ 315(a), 325(a).

⁸³ 35 U.S.C. § 315(b).

⁸⁴ Pub. L. No. 112-29 § 18(a)(1)(B).

This means that *inter partes* review can be used defensively up to a point, after which it is time-barred, or it can be used preemptively at any time. In fact, the empirical data on *inter partes* review bear out this potential not only for usage by intended defensive petitioners but also for substantial usage by preemptive petitioners.⁸⁵ Covered business method review can be used only defensively, not preemptively. Post-grant review can be used defensively with no time bar as well as preemptively.

The three proceedings also differ importantly with respect to the legal grounds on which they may challenge the validity of patents. *Inter partes* review allows challenges based only on two arguments: that the invention is anticipated by the prior art under § 102 of the Patent Act, or that it is obvious in light of the prior art under § 103.⁸⁶ *Inter partes* reviews are also limited as to the types of prior art that may support the challenge: only patents and printed publications are allowed.⁸⁷ By contrast, the scope of covered business method and post-grant reviews are broader, permitting virtually any patentability criterion to serve as the basis of an invalidity challenge.⁸⁸ Most salient among the grounds for such challenges are subject-matter ineligibility under § 101, anticipation under § 102, obviousness under § 103, and inadequate disclosure under § 112.

Technology-specificity is another point of differentiation among the three proceedings. Whereas parties may seek *inter partes* or post-grant review for patents without regard to the technology areas to which those patents pertain, covered business method review is, by definition, limited only to certain data processing-related patents.⁸⁹ In all three proceedings, however, the mere availability of grounds for questioning patent validity does not assure its usage where particular technologies are concerned.

The upshot of these differences among *inter partes* review, covered business method review, and post-grant review is that structural features matter. Usage of the *inter partes* and covered business method review proceedings has been shaped significantly by the patentability grounds on which challenges may be brought, by the permitted technologies from which patents may be selected for challenge, and by the availability of challenges across all patents versus those issued under the first-inventor-to-file provisions of the America Invents Act. The lessons gleaned so

⁸⁵ Vishnubhakat, et al. . *supra* note 6 at 67.

⁸⁶ 35 U.S.C. § 311(b).

⁸⁷ *Id.*

⁸⁸ 35 U.S.C. § 321(b).

⁸⁹ The statutory definition refers to patents that claim “a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions. Pub. L. No. 112-29 § 18(d)(1). The USPTO has, in turn, issued an agency rule defining “technological inventions” on a case-by-case basis based on “[w]hether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art, and solves a technical problem using a technical solution. 37 C.F.R. § 42.301(b).

far from empirical study of *inter partes* review and covered business method review offer important insights on how to evaluate post-grant review.

IV How to Evaluate Post-Grant Review

Structural differences among the available statutory grounds, permitted technological fields, and temporal scope have produced much variation in how *inter partes* review and covered business method review have been used. These effects are the subject of detailed and ongoing empirical research, and the lessons from that research should inform how empirical study of post-grant review proceeds as this youngest of the three patent validity challenge mechanisms begins to see increased use in the coming years.

A. Lessons from IPR and CBM

As to available statutory grounds for challenge, it is telling foremost that although covered business method review allows a wide variety of challenges, large majorities of CBM petitions contain subject-matter ineligibility challenges based on § 101 (68.6% of petitions) obviousness challenges based on § 103 (71.1% of petitions).⁹⁰ By contrast, relatively few CBM petitions contain disclosure-based challenges of inadequate enablement (8.3% of petitions), written description (17.8% of petitions), or indefiniteness (19.4% of petitions).⁹¹ Figure 1 illustrates these findings.

This preference for subject-matter ineligibility and obviousness challenges is, of course, understandable. In the last decade, the Supreme Court has overturned much of the rule-based Federal Circuit precedent regarding the statutory criteria for patentability in favor of flexible standards, and what the Court has addressed is the nonobviousness requirement (in *KSR International Co. v. Teleflex Inc.*⁹²) and the subject-matter eligibility requirement (in a string of four cases over five years⁹³). Moreover, all of the Supreme Court's subject-matter eligibility cases have pointed to what is ineligible, but has provided scant countervailing guidance on what is eligible.⁹⁴ As a result, ineligibility and obviousness are rightly understood as fertile ground for validity challenges, particularly with respect to patents that claim inven-

⁹⁰ Vishnubhakat, et al. *supra* note 6 at 69, 98 (Figure 7: Proportions of CBM Petitions Containing Each Grounds for Challenge).

⁹¹ *Id.*

⁹² 550 U.S. 398 (2007).

⁹³ *Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347 (2014); *Association for Molecular Pathology v. Myriad Genetics, Inc.* 133 S. Ct. 2107 (2013); *Mayo Collaborative Services v. Prometheus Laboratories, Inc.* 132 S. Ct. 1289 (2012); *Bilski v. Kappos*, 561 U.S. 593 (2010).

⁹⁴ Saurabh Vishnubhakat, 'Ariosa v. Sequenom: In Search of Yes After a Decade of No,' *Nat'l L. Rev.* (Dec. 4, 2015), available at www.natlawreview.com/article/ariosa-v-sequenom-search-yes-after-decade-no.

tions on business methods, which the Court in its dicta has repeatedly singled out for suspicion.⁹⁵

The converse is also true. Just as the technology-specificity of covered business method review fosters an emphasis on two grounds for challenge among the various grounds that are available, *inter partes* review tends to be focused on patents pertaining to inventions related to ‘Computers & Communications’ even though *inter partes* review imposes is no formal constraint with respect to technology. Indeed, challenges to patents in this technology make up the majority (50.4%) of *inter partes* review petitions.⁹⁶ The remaining major technology areas all make up relatively small shares, e.g., ‘Electrical’-related patents account for 15.4% of *inter partes* review petitions; ‘Drugs & Medical’-related patents, 13.1% of petitions.⁹⁷ Figure 2 illustrates these findings.

This trend, too, is rational in light of the relevant legal context. One point of context is timing. The more flexible—i.e., less predictable—nonobviousness standard of *KSR* was articulated in 2007, and the ‘subject-matter quartet’ of *Bilski*, *Mayo*, *Myriad*, and *Alice* were decided between 2010 and 2014. Meanwhile, though *inter partes* review is limited to anticipation and obviousness challenges under §§ 102 and 103, it is available for all patents,⁹⁸ not merely those issued under the new first-inventor-to-file regime as post-grant review is limited.⁹⁹ Accordingly, *inter partes* review can be used to invalidate patents even if they were valid under the patentability requirements as they were understood at the time when they were issued—so long as they are now invalid under the patentability requirements as they are presently understood in light of the Supreme Court’s recent jurisprudence.

Another point of context is the content of that jurisprudence. There is a general consensus that *KSR* raised the threshold of nonobviousness and made it harder to obtain (or defend) patents under § 103.¹⁰⁰ Where legal opinion differs is whether this higher bar was an appropriate correction¹⁰¹ or an inappropriate impediment.¹⁰²

⁹⁵ See, e.g. *Alice Corp.* 134 S. Ct. at 2360–2361 (2014) (Sotomayor, J. conc.) (arguing that ‘any claim that merely describes a method of doing business does not qualify as a process under § 101’) (internal citations omitted); *Bilski*, 561 U.S. at 614 (Stevens, J. concurring in judgment) (same); *Bilski*, 561 U.S. at 657 (Breyer, J. concurring) (same); *eBay Inc. v. MercExchange, L.L.C.* 547 U.S. 388, 397 (2006) (Kennedy, J. concurring) (suggesting that the availability of injunctive remedies may be different for business method patents of ‘potential vagueness and suspect validity’).

⁹⁶ Vishnubhakat, et al. *supra* note 6 at 68, 93 (Figure 2: IPR Petition Filings Across Technology).

⁹⁷ *Id.*

⁹⁸ Pub. L. No. 112-29 § 6(c)(2)(A).

⁹⁹ Pub. L. No. 112-29 § 6(f)(2)(A).

¹⁰⁰ Jason Rantanen, *The Federal Circuit’s New Obviousness Jurisprudence: An Empirical Study*, 16 STAN. TECH. L. REV. 709, 738–739 (2013); Theresa Stadheim, *How KSR v. Teleflex Will Affect Patent Prosecution in the Electrical and Mechanical Arts*, 91 J. PAT. & TRADEMARK OFF. SOC’Y 142, 148 (2009); Janice M. Mueller, *Chemicals, Combinations, and ‘Common Sense’ How the Supreme Court’s KSR Decision Is Changing Federal Circuit Obviousness Determinations in Pharmaceutical and Biotechnology Cases*, 35 N. KY. L. REV. 281, 283 (2008).

¹⁰¹ E.g. John F. Duffy, *KSR v. Teleflex: Predictable Reform of Patent Substance and Procedure in the*

A similar descriptive consensus (and normative disagreement) appears to be emerging about the subject-matter quartet raising the threshold of patent-eligibility,¹⁰³ though the broad and policy-based reasoning of the subject-matter cases makes it likely that a single, unequivocal set of impacts upon patentability may never emerge from those cases. Instead, the effect of the Court's recent subject-matter cases is better understood in terms of its focus on ensuring true innovation.

For example, in *Mayo*, the Court held that a method for calibrating drug dosage based on how much the drug's byproducts remained in the bloodstream did no more than apply 'well-understood, routine, conventional activity' to the laws of nature that govern how drugs broke down in the bloodstream and was therefore patent-ineligible.¹⁰⁴ Similarly, in *Alice*, the Court extended its reasoning from *Mayo* about laws of nature to address abstract ideas as well. The Court in *Alice* held that a system for mitigating settlement risk in financial transactions did no more than add 'well-understood, routine, conventional activit[ies] previously known to the industry' to what the Court believed amounted to no more than the abstract idea of electronic recordkeeping and was therefore patent-ineligible.¹⁰⁵

In both instances, the Court's concern was that, over and above the law of nature or abstract idea on which the invention relied, it lacked any truly inventive concept. This retrospective focus on the state of the prior knowledge and on what was 'well-understood, routine, conventional' is wholly consonant with an obviousness challenge, which has long looked to the 'scope and content of the prior art' and has disfavored inventions that are trivial variations of well-understood or conventional products or practices.¹⁰⁶ It is not surprising, then, that patents on software- and business method-related inventions that are vulnerable to a subject-matter eligibility attack are also vulnerable to an obviousness attack—and that *inter partes* review is being used for that purpose.

B. Court-Agency Substitution

A final lesson from the observed usage of *inter partes* and covered business method review is that error correction in the agency setting of the Patent Office has

Judiciary, 106 MICH. L. REV. FIRST IMPRESSIONS 34, 37 (2007) (referring to the *KSR* decision as an instance of 'growth and correction' in the patent system); Janice M. Mueller & Daniel Harris Breaun, *Overcoming the 'Impossible Issue' of Nonobviousness in Design Patents*, 99 Ky. L.J. 419, 425 (2010) (similarly referring to the *KSR* decision as a 'correction of outlier decisions').

¹⁰² E.g. Rexford Johnson & Matthew Whipple, *KSR and the Rising Bar of Innovation*, 51-AUG ADVOCATE (IDAHO) 18, 18 (2008) (characterizing responses to the *KSR* decision as 'fears that *KSR* so drastically raised the 'non-obviousness standard'') (emphasis added).

¹⁰³ E.g. Richard C. Kim, *The Impact of the America Invents Act and Recent Court Decisions on US Patent Procurement and Enforcement*, ASPATORE, 2015 WL 9875585, *18 (noting that "potential attacks against the patent/patent owner [have been] made easier" by the *Alice* decision).

¹⁰⁴ 132 S. Ct. at 1298.

¹⁰⁵ 134 S. Ct. at 2359.

¹⁰⁶ *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966).

a mixed relationship with traditional error correction in the courts. One effect is the standard model of substitution, where a party that has already been sued in district court for infringement subsequently brings an administrative challenge to patent validity.¹⁰⁷ Also at work is nonstandard substitution, where a party brings an administrative validity challenge to one or more patents even though it has not yet been sued for infringement in district court on those patents.¹⁰⁸ Standard substitution is defensive and is possible for *inter partes* review as well as for covered business method review.¹⁰⁹ By contrast, nonstandard substitution is preemptive and is possible for *inter partes* review¹¹⁰ but not for covered business method review.¹¹¹

The usage of *inter partes* review and covered business method review in defensive and, where permitted, preemptive ways is significant. This usage presents at least three important implications for the relationship—even competition—between the Patent Office and the courts for primacy in resolving disputes over patent validity. First, standard substitution and its defensive, self-interested posture is the norm. The large majority of petitioners (70%) are prior district court defendants as to the patents that they challenge in *inter partes* review.¹¹² The magnitude of the standard substitution effect among *inter partes* review petitioners is technology-specific.¹¹³ Similarly, standard substitution among *inter partes* review petitions themselves is also technology-specific, with much variation among the share of petitions in each technology where at least one petitioner was a prior defendant in district court on the same patent.¹¹⁴ These findings are illustrated in Figures 3 and 4.

Second, and following from the first, nonstandard substitution and its preemptive posture is a substantial phenomenon, as 30% of petitioners are not prior district court defendants as to the patents that they nevertheless challenge in *inter partes* review.¹¹⁵ Like defensive standard substitution, preemptive nonstandard substitution is highly technology-specific and, moreover, reflects significant disparities between the shares of *inter partes* review petitioners who were not prior defendants and *inter partes* review petitions on which no prior defendants are named. This disparity reveals that petitioners who are not prior defendants are joining petitions that have been filed by prior defendants.¹¹⁶ This use of joinder may be socially beneficial collective action aimed at invalidating patents of questionable quality, though the par-

¹⁰⁷ Vishnubhakat, et al. . *supra* note 6 at 49–50.

¹⁰⁸ *Id.* at 50–51.

¹⁰⁹ See *supra* note 83 and accompanying text.

¹¹⁰ See *id.*

¹¹¹ See *supra* note 84 and accompanying text.

¹¹² Vishnubhakat, et al. . *supra* note 6 at 49–50.

¹¹³ *Id.* at 77, 107 (Figure 15a: Share of IPR Petitioners That Were Defendants in a Prior Suit on the Same Patent, by Technology).

¹¹⁴ *Id.* at 77, 108 (Figure 15b: Share of IPR Petitions in Which At Least One Petitioner Was a Defendant in a Prior Suit on the Same Patent, by Technology).

¹¹⁵ *Id.* at 50–51.

¹¹⁶ *Id.*

ticular strategic mechanics of bringing these challenges through serial petitions may also reflect undesirable delay and harassment.¹¹⁷

A third implication lies between standard and nonstandard substitution and reflects a rare, but interesting, phenomenon: petitions for *inter partes* review that are preemptive in the sense that no district court litigation has yet been filed against that particular petitioner on that particular patent, but the district court litigation does come fairly soon thereafter. Such petitions are filed, in other words, with litigation in the offing.¹¹⁸ Among patents that have been asserted in district court as well as challenged in either *inter partes* review or covered business method review, only about 3% of the patents were asserted in district court at the same time or after the first Patent Office validity challenge, rather than before.¹¹⁹ That this type of pre-litigation validity challenge exists at all suggests that petitions for *inter partes* review are, at least partly, taking the place of declaratory judgment actions that similarly precede imminent litigation.¹²⁰

The importance of these implications for present purposes is that post-grant review allows defensive and preemptive challenges alike, just as *inter partes* review does. This structural similarity invites comparisons of Patent Office proceedings with district court litigations for patents in post-grant review as well.

C. PGR Data: A First Look

These lessons from *inter partes* and covered business method review point to meaningful ways in which to begin evaluating the relatively small number of patents that have been subjected to post-grant review thus far. Since post-grant review became available, only twenty issued patents have been challenged across twenty-one petitions.¹²¹ The patents and several of their bibliographic characteristics are listed in Table 1. Of particular note are the respective technology categories of the patents involved, the grant date of the patents, and the filing dates of the post-grant review petitions. Also derived from this information is the post-grant review filing deadline and the amount of time remaining when each petition was actually filed.

As with the other validity challenge proceedings, usage of post-grant review is technology-specific and notably focused on ‘Computers & Communications’-related patents (32%). Figure 5 illustrates the technology distribution of post-grant review petitions. Timing of the initial set of post-grant review petitions, meanwhile,

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 73.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ One additional case, mistakenly docketed as No. PGR2013-00007 (June 12, 2013), was actually a petition for *inter partes* review and was both dismissed by the PTAB and expunged. It is mentioned here because its case number nevertheless appears in searches for post-grant review petitions.

varies considerably. Measured as the difference between the actual date when the post-grant review petition *actually was* filed and the nine-month deadline after grant by which any post-grant review petition *must be* filed, petitioners brought their challenges with different amounts of time to spare. The median time remaining until the filing deadline was roughly 4.4 months, but the distribution was bimodal with peaks at 2.2 months and 6.5 months. Figure 6 illustrates these findings.

Usage of post-grant review is also grounded primarily in obviousness-based challenges. Assertions rooted in obviousness appear in 85.7% of the petitions filed thus far. By comparison, anticipation-based challenges appear in 47.6% of petitions; subject-matter eligibility-based challenges in 38.1% of petitions; and the disclosure-based requirements of enablement, written description, and definiteness in 33.3% of petitions or fewer. Figure 7 illustrates these findings.

Moreover, obviousness challenges appear to overlap considerably with other grounds in petitions for post-grant review. Anticipation is a natural accompaniment to obviousness, as both requirements police innovation and do so by comparing the present invention to the prior art.¹²² And, indeed, every petition for post-grant review so far that has contained a challenge based on anticipation has also contained at least one challenge based on obviousness. This overlap extends to other statutory grounds as well. With the exception of three petitions—one based on ineligibility under § 101 and the other two based on disclosure-related requirements under § 112—all petitions for post-grant review contain at least one obviousness-based challenge. This broad preference for obviousness across technology areas is understandably contrary to the predominance of subject matter-eligibility in covered business method reviews, as the latter are restricted to a technology that is frequently questioned on eligibility grounds whereas post-grant review is available—and is being used—as to patents from all technologies.

Finally, even at this early stage, parties do appear to be using post-grant review as strategic components in broader disputes in the agency setting of the PTAB as well as in the federal courts. Of the twenty patents challenged in post-grant review, the majority (60%) have been challenged with no related infringement claims observed as to those patents in U.S. district court litigation. These petitions follow the nonstandard model, then, and are preemptive. The remaining 40% of petitions do follow the standard model and are defensive in that they are responses to patent infringement claims in U.S. district court. More specifically, 30% of post-grant review petitions appear to be based on direct self-interest by district court defendants. The remaining 10% of petitions follow multiple federal-court suits alleging infringement by multiple defendants, from which one defendant takes the initiative and petitions for post-grant review. Figure 8 illustrates these findings, which sug-

¹²² Courts have summarized this relationship by suggesting that ‘anticipation is the epitome of obviousness. *E.g.* *Structural Rubber Prods. Co. v. Park Rubber Co.* 749 F.2d 707, 716 (Fed. Cir. 1984) (quoting *In re Fracalossi*, 681 F.2d 792, 794 (C.C.P.A. 1982)); see also *Connell v. Sears, Roebuck & Co.* 722 F.2d 1542, 1548 (Fed. Cir. 1983).

gest that standard- and nonstandard-model petitioning both play an important role in post-grant review, just as they have in the other administrative validity challenge proceedings.

This marked overlap, right from the start, between post-grant review and federal-court litigation also suggests that current disputes over the PTAB's authority to institute *inter partes* review petitions and to construe patent claims in adjudicating those reviews will have considerable impact on institution decisions and claim construction in post-grant review as well. The *Cuozzo* case now pending before the Supreme Court presents both of these questions and is hotly contested in particular on whether the PTAB's 'broadest reasonable interpretation' standard for construing patent claims is appropriate.¹²³ This standard produces broader claim scope than does the 'plain and ordinary meaning' standard that federal courts use, and a result of this broader claim scope is a greater likelihood that the PTAB will find the patent invalid.¹²⁴ In addressing this disparity, the petitioner and at least four amici curiae in *Cuozzo* have pointed to the substantial degree to which patents that are challenged in *inter partes* review are also the subject of earlier-filed litigation in the federal courts.¹²⁵ As the 'broadest reasonable interpretation' standard of claim construction also governs post-grant review¹²⁶ and as parties also appear to be using post-grant review in considerable overlap with litigation, the resolution of these present structural disputes over *inter partes* review directly implicate the future usage of post-grant review as well.

Conclusion

The relatively minimal usage of post-grant review in the four years since it became available is starting to change as more patents issue under the first-inventor-to-file provisions of the America Invents Act. Thus, where data was once markedly lacking, a significant new body of data on post-grant review will be generated. Systematic analysis of that data will be important not only because any evaluation of patent reform efforts would be incomplete without it but also because the relatively limited *inter partes* and covered business method review proceedings are best understood as interim measures to mitigate the patent examination error costs of the

¹²³ No. 15-446 (Sup. Ct. Jan. 15, 2016).

¹²⁴ Petition for a Writ of Certiorari, *Cuozzo Speed Technologies, LLC v. Lee*, No. 15-446, at 19 (Sup. Ct. Oct. 6, 2015).

¹²⁵ Brief of Petitioner, *Cuozzo Speed Technologies, LLC v. Lee*, No. 15-446, at 42 (Sup. Ct. Feb. 22, 2016) (citing Vishnubhakat, et al. *supra* note 6); Brief of Amici Curiae 3M Company, et al. in Support of Petitioner, *Cuozzo Speed Technologies, LLC v. Lee*, No. 15-446, at 36 (Sup. Ct. Feb. 29, 2016) (same); Brief of Amicus Curiae Intellectual Ventures Management in Support of Petitioner, *Cuozzo Speed Technologies, LLC v. Lee*, No. 15-446, at 3 (Sup. Ct. Feb. 29, 2016) (same); Brief of Amici Curiae InterDigital, Inc. et al. in Support of Petitioner, *Cuozzo Speed Technologies, LLC v. Lee*, No. 15-446, at 21, 23 (Sup. Ct. Feb. 29, 2016) (same); Brief of Amicus Curiae Federal Circuit Bar Association in Support of Petitioner, *Cuozzo Speed Technologies, LLC v. Lee*, No. 15-446, at 9 (Sup. Ct. Feb. 29, 2016) (same).

¹²⁶ 37 C.F.R. § 42.200(b).

past—whereas post-grant review is the relatively broader, more permanent measure for managing examination error in the future. Empirical lessons from *inter partes* and covered business method review have provided, and continue to provide, important guideposts for making that systematic analysis, and the first look offered in this paper is intended as a starting point for much more detailed study to come.

Tables & Figures

Figure 1. Proportions of CBM Petitions Containing Each Grounds for Challenge

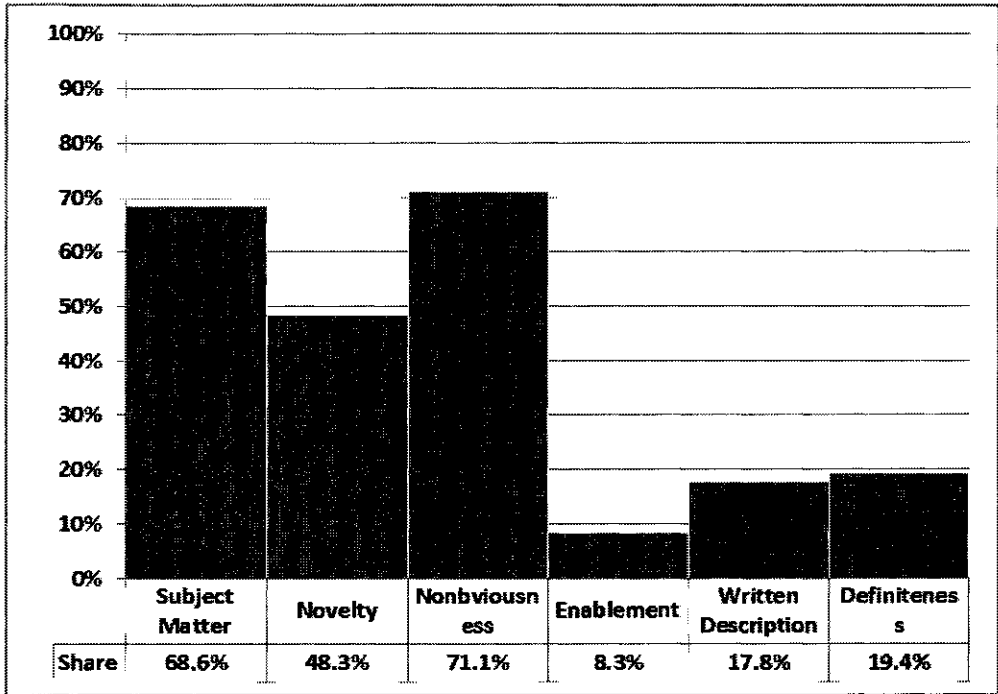


Figure 2. IPR Filings across Technology

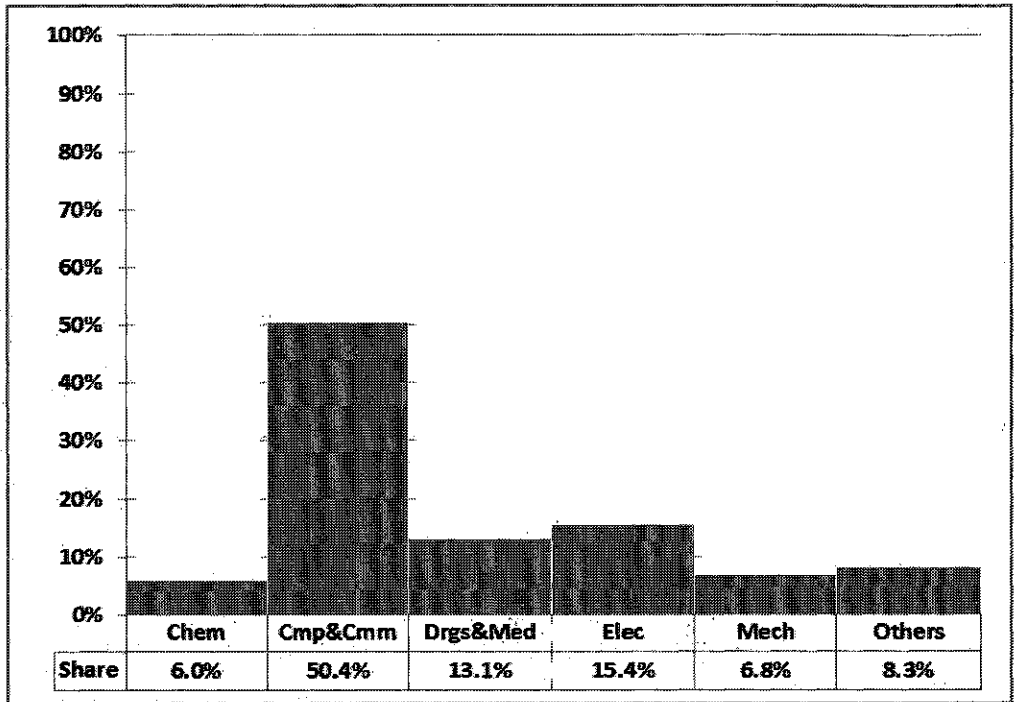


Figure 3. Share of IPR Petitioners That Were Defendants in a Prior Suit on the Same Patent, by Technology

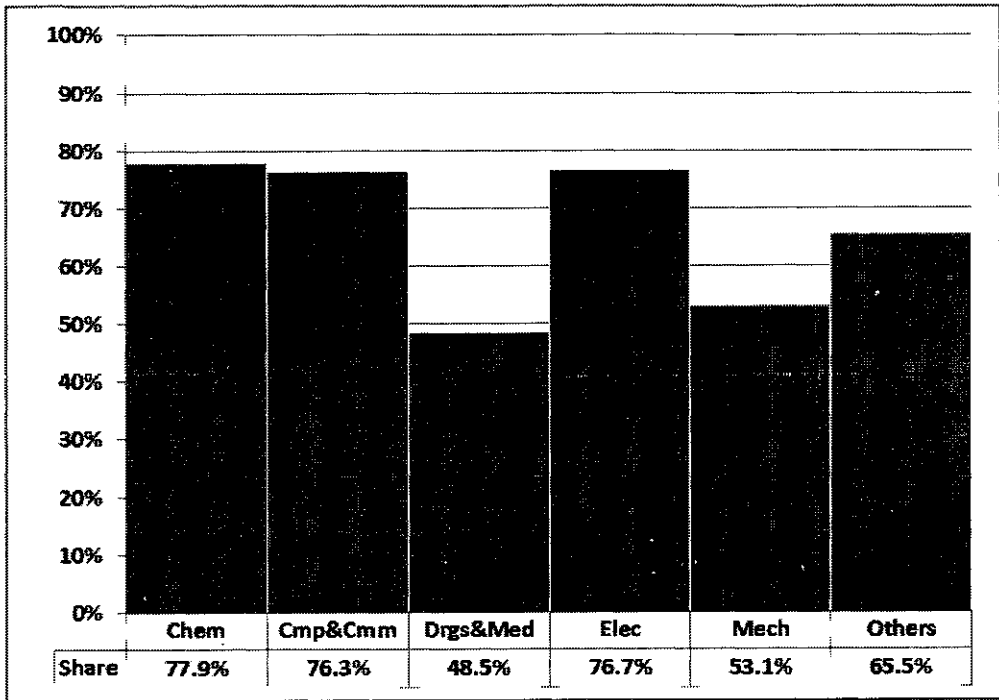


Figure 4. Share of IPR Petitions in Which At Least One Petitioner Was a Defendant in a Prior Suit on the Same Patent, by Technology

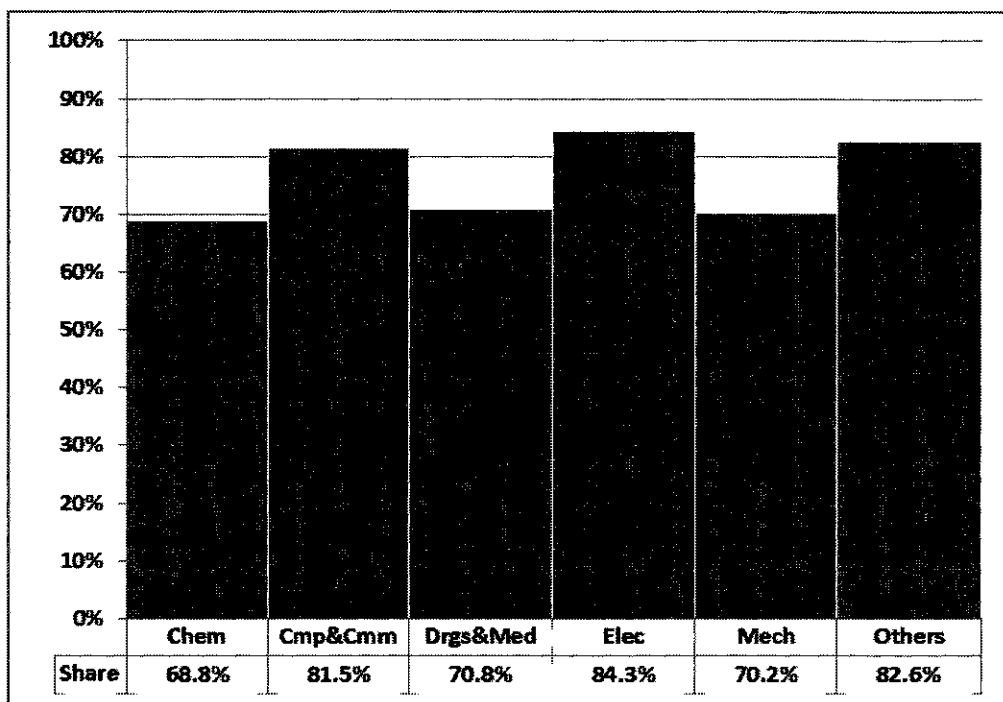


Table 1. PGR Petitions Data

Case No.	Patent No.	NBER	Patent Grant Date	PGR Deadline	PGR Filing Date	PGR Filing Time Left (days)
2013-00007	8364295	2	01/29/13	10/29/13	06/12/13	139
2014-00008	8684420	6	04/01/14	01/01/15	08/05/14	149
2014-00010	8598219	3	12/03/13	09/03/14	09/02/14	1
2015-00003	8660888	2	02/25/14	11/25/14	11/21/14	4
2015-00005	8725557	2	05/13/14	02/13/15	01/30/15	14
2015-00009	8756166	2	06/17/14	03/17/15	03/17/15	0
2015-00011	8859623	3	10/14/14	07/14/15	05/11/15	64
2015-00013	8855280	2	10/07/14	07/07/15	05/19/15	49
2015-00014	8929525	2	01/06/15	10/06/15	05/19/15	140
2015-00017	8933395	4	01/13/15	10/13/15	06/15/15	120
2015-00018	9051066	5	06/09/15	03/09/16	06/22/15	261
2015-00019	8876991	3	11/04/14	08/04/15	08/03/15	1
2015-00022	8882292	4	11/11/14	08/11/15	08/03/15	8
2015-00023	8876638	6	11/04/14	08/04/15	08/04/15	0
2016-00002	9126245	3	09/08/15	06/08/16	11/19/15	202
2016-00004	8968592	1	03/03/15	12/03/15	12/02/15	1
2016-00007	9173942	6	11/03/15	08/03/16	02/05/16	180
2016-00008	9173942	6	11/03/15	08/03/16	02/05/16	180
2016-00010	9155776	6	10/13/15	07/13/16	02/16/16	148
2016-00011	9157017	6	10/13/15	07/13/16	02/23/16	141
2016-00012	9157017	6	10/13/15	07/13/16	02/23/16	141
2016-00013	9038090	2	05/19/15	02/19/16	02/19/16	0

Figure 5. PGR Filings across Technology

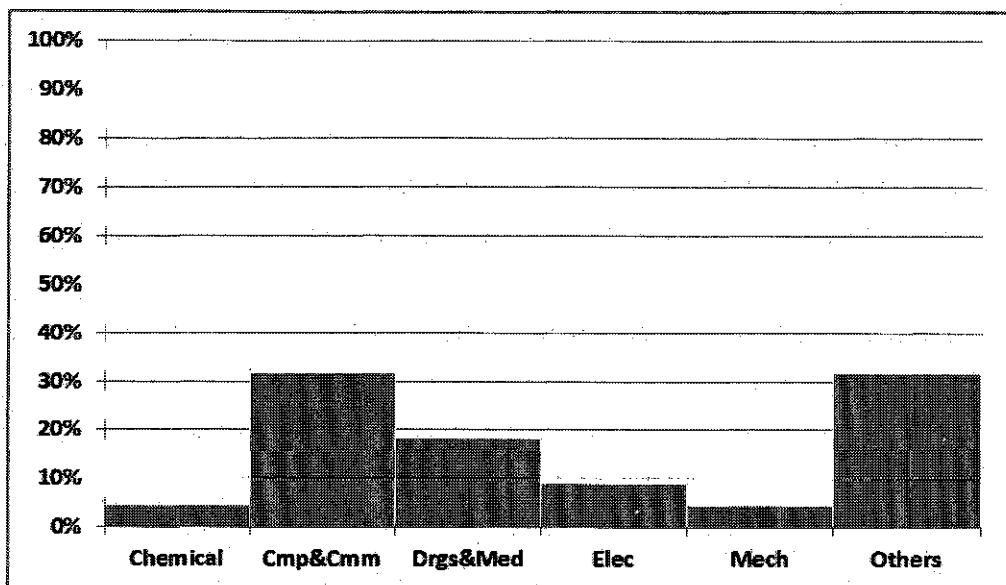


Figure 6. Distribution of Time Remaining (Days) Before the Nine-Month PGR Filing Deadline

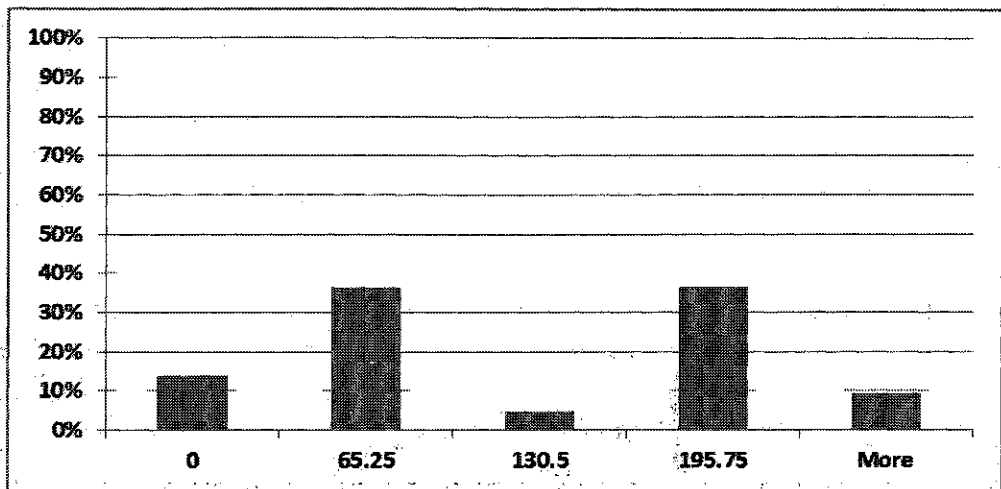


Figure 7. Proportions of PGR Petitions Containing Each Grounds for Challenge

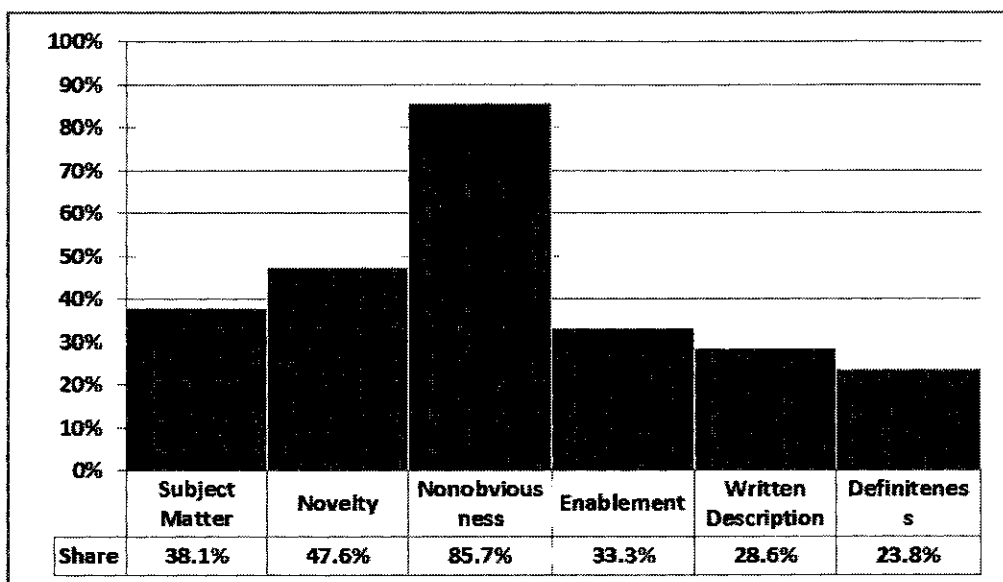
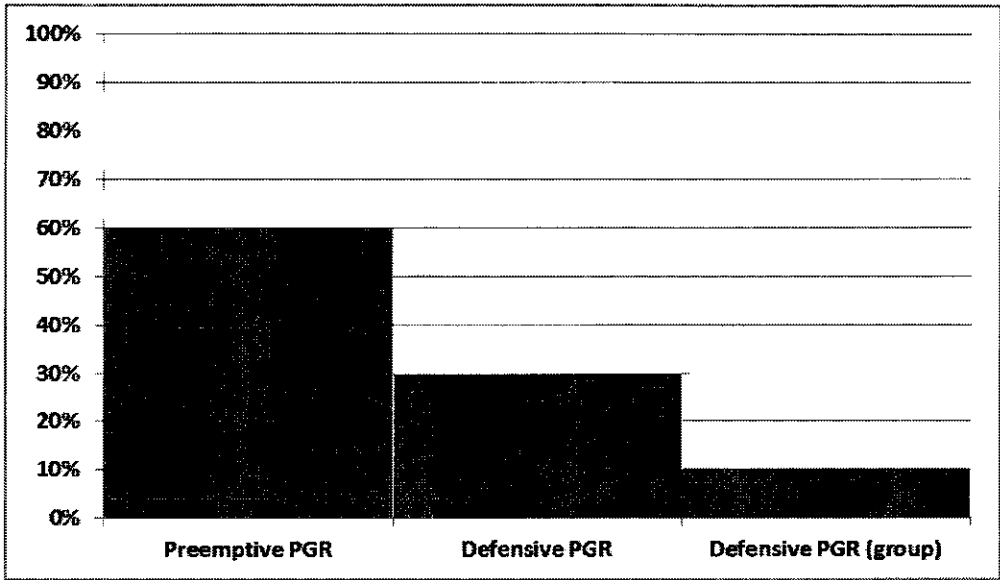


Figure 8. Related Litigation on Patents Challenged in PGR



Fee Shifting for PTAB Proceedings

Megan M. La Belle*

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* Associate Professor, Catholic University of America, Columbus School of Law. This Article was prepared for and presented at the *Texas Intellectual Property Law Journal's* 17th Annual Symposium on Patent and Trademark Office Proceedings. The author would like to thank the editors for organizing the symposium, and the participants for their extremely helpful comments and suggestions, particularly John Golden, Tim Holbrook, Greg Mandel, and Saurabh Vishnubhakat. The author is also grateful to her research assistants, Emily Black, Monika Ledlova, and Michael Marusak.

Fee shifting in patent litigation has been a hot topic in recent years. In *Octane Fitness v. ICON* and *Highmark v. Allcare*, the Supreme Court made it easier to shift fees under 35 U.S.C. § 285, which allows courts to award reasonable attorney's fees to prevailing parties in patent cases. Moreover, several bills have been introduced in Congress since 2013 that would expand courts' power beyond the parameters of § 285. Various aspects of these proposals have been heavily debated, including whether fee shifting should be mandatory or discretionary, how to recover fees from the 'real party in interest, and whether to adopt a one-way or two-way fee shifting scheme.

These sort of design choices regarding a fee shifting regime are not simply about who should pay for patent litigation. Fee shifting schemes also provide a roadmap from lawmakers about whether and how litigation ought to proceed. Fee shifting regimes, in other words, are used to influence litigation conduct. Thus, if Congress is going to alter the fee shifting landscape for patent litigation, it must make careful choices in order to incentivize certain types of patent disputes, while simultaneously discouraging others.

This Article does not advocate for a new fee shifting regime for patent litigation, nor does it endeavor to design one. Instead, it focuses on one narrow but important question about fee shifting in patent cases that has received surprisingly little attention: whether prevailing parties should be able to recover attorney's fees incurred for litigation before the Patent Trial and Appeal Board (PTAB)—the administrative tribunal of the U.S. Patent & Trademark Office that was created by the America Invents Act (AIA). With the steep rise in both PTAB proceedings (post-AIA) and fee motions (post-*Octane/Highmark*), district courts are bound to face this question more frequently. While the U.S. Court of Appeals for the Federal Circuit has allowed for the recovery of such fees in the past, the Federal Circuit's analysis was flawed in light of Supreme Court precedent. Thus, this Article proposes that Congress enact legislation allowing parties who prevail at the PTAB to recover their attorney's fees.

Introduction

Patent litigation is notoriously expensive.¹ Although this sentiment has become somewhat of a cliché, it is nonetheless true. Depending on the stakes, the median costs for patent litigation range from \$600,000 (for suits worth less than \$1 million) to just under \$2 million (for suits worth \$10 to \$25 million).² Expert witness fees,

¹ See, e.g. Gaia Bernstein, *The Rise of the End User in Patent Litigation*, 55 B.C. L. REV. 1443, 1465 (2014); Megan M. La Belle, *Patent Law As Public Law*, 20 GEO. MASON L. REV. 41, 44 (2012); Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. PA. L. REV. 1, 77 (2005); Michael Risch, *Patent Troll Myths*, 42 SETON HALL L. REV. 457, 467 (2012).

² AIPLA REPORT OF THE ECONOMIC SURVEY 41 (2015). Available at <http://www.aipla.org/learningcenter/library/books/econsurvey/2015EconomicSurvey/Pages/default.aspx/>.

document management and production, and technology-related demonstratives all contribute to the expense of patent litigation.³ But most of the money spent to adjudicate patent disputes is for attorney's fees.⁴

Acknowledging the high cost of patent litigation, Congress created faster and less expensive administrative procedures for challenging patents pursuant to the America Invents Act (AIA) of 2011—the most comprehensive patent reform legislation in fifty years.⁵ These new post-grant proceedings are adjudicated at the U.S. Patent and Trademark Office (PTO) by the Patent Trial and Appeal Board (PTAB), a newly-established tribunal of administrative patent judges.⁶ These administrative proceedings have been far more popular than anyone anticipated with thousands of petitions for review filed since their implementation in 2012.⁷

Another way litigants and courts have attempted to address the high cost of patent litigation is through fee shifting. Most civil litigation in the United States is governed by the 'American Rule,' meaning that each party pays his own attorney's fees.⁸ Since the 1940s, however, the Patent Act has allowed courts to award fees to prevailing patent litigants.⁹ Yet, for at least two reasons, fee shifting in patent cases has been relatively rare over the past half century. First, the patent fee shifting provision only provides for fees in 'exceptional' cases.¹⁰ Second, the United States Court of Appeals for the Federal Circuit—the court with exclusive appellate jurisdiction over patent cases—interpreted 'exceptional' very narrowly, making fee awards even harder to come by.¹¹

In recent years, the landscape for fee shifting in patent cases has started to change. The U.S. Supreme Court decided two cases in 2014, *Octane Fitness v. ICON* and *Highmark v. Allcare*, that make it easier to shift fees under 35 U.S.C. § 285.¹² While it's too early to know the full impact of *Octane* and *Highmark*, early empirical evidence shows an increase in fee motions being filed and granted.¹³ What is more, there are numerous legislative proposals to broaden fee shifting in patent cases even further.¹⁴ To be sure, those bills have been stalled on Capitol Hill

³ Bernstein, *supra* note 1, at 1485.

⁴ See, e.g. James Bessen & Michael J. Meurer, *The Private Costs of Patent Litigation*, 9 J.L. ECON. & POL'Y 59, 81 (2012).

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

⁶ *Id.* §§ 6, 7, 18.

⁷ See *infra* Part III (discussing recent widespread use of post-grant administrative proceedings, particularly inter partes review).

⁸ *Arcambel v. Wiseman*, 3 U.S. 306 (1796).

⁹ See *infra* Part II.A (outlining the history of fee shifting in patent cases).

¹⁰ 35 U.S.C. § 285 (1952).

¹¹ *Brooks Furniture Mfg. Inc. v. Dutilier Int'l, Inc.* 393 F.3d 1378, 1381-82 (Fed. Cir. 2005).

¹² *Octane Fitness LLC v. ICON Health and Fitness, Inc.* 134 S.Ct. 1749 (2014); *Highmark, Inc. v. Allcare Health Mgmt. Sys. Inc.* 134 S. Ct. 1744 (2014).

¹³ See *infra* note 140 (summarizing the findings of recent post-*Octane* empirical studies).

¹⁴ See *infra* Part II.D (outlining various legislative proposals to expand fee shifting in patent cases).

for some time, but there are indications that patent reform may be back on the table before long.¹⁵

This confluence of events—meaning the passage of the AIA, the dramatic rise in litigants' use of PTO administrative proceedings, the decisions in *Octane* and *Highmark*, and Congress's focus on fee shifting in patent cases—makes it likely that courts will more frequently confront an important question about fee shifting that has received surprisingly little attention. That question is whether § 285, or the new fee shifting statutes proposed in Congress, permit prevailing parties in patent cases to recover attorney's fees incurred for proceedings before the PTO. While the Federal Circuit addressed this question almost three decades ago in *PPG Indus. Inc. v. Celanese Polymer Specialties Co. Inc.*,¹⁶ the court's analysis was flawed in light of Supreme Court precedent.¹⁷ Thus, this Article calls on the judiciary to revisit *PPG*, and urges Congress to explicitly resolve this issue in any new patent fee-shifting legislation under consideration.

This Article proceeds in four Parts. Part I compares and contrasts the different fee shifting regimes used in civil litigation in the United States today, and weighs their costs and benefits. Part II turns to fee shifting in patent cases, and discusses the history of awarding attorney's fees, as well as recent developments in this area from both the judicial and legislative branches. Part III summarizes the case law addressing the question whether fees incurred for work before an administrative tribunal are encompassed by fee shifting provisions. Part III then argues that the Supreme Court has adopted a clear framework for analyzing such questions, but that the Federal Circuit failed to apply this well-established precedent when it decided *PPG*. Finally, Part IV recommends that either the Federal Circuit sitting *en banc* or the Supreme Court reconsider *PPG*, and proposes that Congress enact legislation allowing for the recovery of attorney's fees for work before the PTAB.

I. Civil Litigation and Fee Shifting

The question of who pays attorney's fees in civil litigation is about more than money. Fee shifting regimes are designed to shape litigation conduct, for example by incentivizing certain types of lawsuits and disincentivizing others. The three primary fee shifting regimes utilized in the United States today—no-way fee shifting, one-way fee shifting, and two-way fee shifting—reflect different beliefs about

¹⁵ See, e.g. USPTO, Remarks by Director Michelle K. Lee at the IAM Patent Law & Policy Conference (Nov. 15, 2016), <https://www.uspto.gov/about-us/news-updates/remarks-director-michelle-k-lee-iam-patent-law-and-policy-conference>; Peter Harter & Gene Quinn, *Pence, Conservative Views on Patents Likely to Influence Trump* (Nov. 11, 2016), <http://www.ipwatchdog.com/2016/11/11/mike-pence-provides-substance-trumps-patent-policies/id=74631/>

¹⁶ *PPG Indus. Inc. v. Celanese Polymer Specialties Co.* 840 F.2d 1565 (Fed. Cir. 1988).

¹⁷ See *infra* Parts III and IV.

the purpose and value of litigation in our society.¹⁸ The popularity of these fee systems has ebbed and flowed as attitudes about civil litigation have changed over time.

A. No-Way Fee Shifting

The norm in the United States is that all litigants, win or lose, pay their own attorney's fees.¹⁹ A no-way fee shifting regime, or the 'American Rule' as it is often called, has been the general practice in this country for more than two hundred years.²⁰ It is hard to say why no-way fee shifting took root in early America, but scholars have advanced various theories. Some contend the American Rule evolved from the popular view of the solitary folk-hero fighting for his rights.²¹ Others suggest that this regime—a sharp departure from the British tradition of awarding fees to prevailing parties—developed because of the anti-British sentiment that pervaded post-Revolutionary America.²² Still others claim it was America's disdain for lawyers that led to no-way fee shifting; colonists distrusted lawyers and thus rejected a rule that allowed for the recovery of fees.²³

Whatever the original purpose of no-way fee shifting, today the rule is justified primarily as a means for increasing access to justice.²⁴ The risk of having to pay an opponent's attorney's fees may deter wronged parties from filing meritorious lawsuits.²⁵ This risk is particularly acute for low-income litigants whose injuries would likely go unremedied in a system that shifts fees.²⁶ The American Rule, in other words, 'reflects a certain wealth consciousness' by helping to level the playing field between litigants of modest means and the wealthy, large corporations they are usually suing.²⁷

¹⁸ Keith N. Hylton, *Fee Shifting and Predictability of Law*, 71 CHI.-KENT L. REV. 427, 428 (1995); Thomas D. Rowe, Jr. *The Legal Theory of Attorney Fee Shifting: A Critical Overview*, 1982 DUKE L.J. 651, 652-53 (1982).

¹⁹ Rowe, *supra* note 18, at 651.

²⁰ *Arcambel v. Wiseman*, 3 U.S. 306 (1796).

²¹ Comment, *Court Awarded Attorney's Fees and Equal Access to the Courts*, 122 U. PA. L. REV. 636, 641 (1974). See also Roscoe Pound, *THE SPIRIT OF THE COMMON LAW* 124 (1921).

²² *Id.* at 117.

²³ Charles Warren, *A HISTORY OF THE AMERICAN BAR* 4 (1911). Another theory is that, because trials provided a source of entertainment, Americans refused to adopt rules to discourage them. See Jane P. Mallor, *Punitive Attorney's Fees for Abuses of the Judicial System*, 61 N.C. L. REV. 613, 616 (1983).

²⁴ Edward F. Sherman, *From 'Loser Pays' to Modified Offer of Judgment Rules: Reconciling Incentives to Settle With Access to Justice*, 76 TEX. L. REV. 1863, 1863-64 (1998).

²⁵ *Id.* at 1864; Lucia A. Silecchia, *The Catalyst Calamity: Post-Buckhannon Fee-Shifting in Environmental Litigation and A Proposal for Congressional Action*, 29 COLUM. J. ENVTL. L. 1, 7-8 (2004).

²⁶ *Fleischmann Distilling Corp. v. Maier Brewing Co.* 386 U.S. 714, 718 (1967) ("[T]he poor might be unjustly discouraged from instituting actions to vindicate their rights if the penalty for losing included the fees of their opponents' counsel.").

²⁷ Sherman, *supra* note 24, at 1865.

The unpredictability of civil litigation provides another justification for our modern system of no-way fee shifting.²⁸ Estimating the probability of success in a lawsuit can be difficult, so litigants shouldn't be punished for merely asserting a claim or defense.²⁹ This is especially true for cases raising novel legal theories and other complex questions.³⁰ From a societal perspective, novel claims are fundamental because they allow the law to evolve, adapt, and modernize—for example, with respect to new technologies—often at a much faster pace than if lawmaking was left to the legislative body.³¹ Thus, the American Rule facilitates litigation, including litigation of novel legal issues, by eliminating the risk of having to pay the other side's attorney's fees.³²

The American Rule serves important public interests, namely by making courts more accessible to the less fortunate and creating legal precedent that develops the law.³³ In point of fact, Justice Harlan has described our fee shifting regime as 'an element of due process.'³⁴ While some may be unwilling to go that far, the American Rule is unquestionably a deeply-entrenched feature of our jurisprudence.³⁵

That does not mean, however, that the American Rule is beyond reproach; indeed, it has been the subject of much criticism. For one, critics argue that no-way fee systems fail to make prevailing parties whole.³⁶ Not only does this strike many as fundamentally unfair, it contradicts basic principles of remedies law.³⁷ Commen-

²⁸ *Fleischmann*, 386 U.S. at 718 (“[S]ince litigation is at best uncertain one should not be penalized for merely defending or prosecuting a lawsuit”).

²⁹ *Id.*

³⁰ Bernstein, *supra* note 1, at 1486; Hylton, *supra* note 18, at 439-40; Mallor, *supra* note 23, at 618; Silecchia, *supra* note 25, at 8.

³¹ Hylton, *supra* note 18, at 445-46; Harold J. Krent, *The Fee-Shifting Remedy: Panacea or Placebo?*, 71 CHI.-KENT L. REV. 415, 418 (1995); Nancy Leong & Aaron Belzer, *Enforcing Rights*, 62 UCLA L. REV. 306, 329 (2015) (recognizing that novel legal theories help develop the law); Daniel J. Solove, NOTHING TO HIDE: THE FALSE TRADEOFF BETWEEN PRIVACY AND SECURITY 165-67 (2011) (advocating for a judicial solution to legal issues involving changing technologies).

³² Comment, *supra* note 21, at 659.

³³ James W. Hughes & Edward A. Snyder, *Litigation and Settlement Under the English and American Rules: Theory and Evidence*, 38 J.L. & ECON. 225, 249 (1995); William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J. L. & ECON. 249 (1976) (describing legal precedent as a “public good”).

³⁴ *Boddie v. Connecticut*, 401 U.S. 371, 375 (1971).

³⁵ *Alyeska Pipeline Serv. Co. v. Wildermess Soc’y*, 421 U.S. 240, 270 (1975) (explaining that American Rule is “deeply rooted in our history and in congressional policy”).

³⁶ Michael F. Mayer & Wayne Stix, *The Prevailing Party Should Recover Counsel Fees*, 8 AKRON L. REV. 426 (1975); Rowe, *supra* note 18, at 657; John F. Vargo, *The American Rule on Attorney Fee Allocation: The Injured Person's Access to Justice*, 42 AM. U. L. REV. 1567, 1592 (1993) (American Rule prevents the “little man” from seeking justice in court).

³⁷ Mayer & Stix, *supra* note 36, at 426 (“No party in a breach of contract situation. . .should be left following the breach with less in hand than he would have had if his adversary had lived up to his bargain. But. . .this is precisely what happens under the present cost and damage structure when litigation occurs.”); Rowe, *supra* note 18, at 657 (“Undeniably, the American rule’s effect of re-

tators also take issue with the American Rule for discouraging plaintiffs with low-value claims from bringing suit since any recovery would be swallowed by attorney's fees.³⁸ This is most problematic for impoverished plaintiffs who may not be able to retain contingency-fee lawyers for cases with little monetary value.³⁹

On the other hand, the American Rule has been impugned for failing to deter—and even encouraging—frivolous litigation.⁴⁰ Because defendants have to pay their own fees, even when they win on the merits, settling groundless claims is often less expensive than litigating the case to judgment. In this way, the argument goes, the American Rule functions as a sort of 'legalized form of blackmail' that clogs our courts and undermines our justice system.⁴¹

These shortcomings of the American Rule have led legislatures and courts to implement different types of fee-shifting regimes from time to time. One-way fee shifting, by far the more common exception, awards fees only to prevailing plaintiffs to address the under-enforcement of socially-valuable claims, while two-way fee shifting aims to make prevailing parties whole and discourages frivolous litigation.

B. One-Way Fee Shifting

For over a century, exceptions to the American Rule were few and far between.⁴² Congress crafted limited exceptions for antitrust, securities, copyright, and—most relevant to this article—patent cases.⁴³ Courts, relying on their equitable powers, allowed for the recovery of attorney's fees when the losing party acted in bad faith,⁴⁴ or when the litigation benefitted the public, such as cases involving a common fund.⁴⁵ Because these exceptions were relatively rare, they received little attention from courts and commentators.

ducing a successful plaintiff's recovery by the amount of his lawyer's fee conflicts with the make-whole idea underlying much of the law of remedies.”)

³⁸ Jonathan Fischbach & Michael Fischbach, *Rethinking Optimality in Tort Litigation: The Promise of Reverse Cost-Shifting*, 19 *BYU J. PUB. L.* 317, 327 (2005); Mallor, *supra* note 23, at 616.

³⁹ Fischbach & Fischbach, *supra* note 38, at 327.

⁴⁰ Calvin A. Kuenzel, *The Attorney's Fee: Why Not a Cost of Litigation?*, 49 *IOWA L. REV.* 75, 78 (1963); Michael P. Stone & Thomas J. Miceli, *The Impact of Frivolous Lawsuits on Deterrence: Do They Have Some Redeeming Value?*, 10 *J.L. ECON. & POL'Y* 301, 327 (2014) (switching from American Rule to English Rule will discourage frivolous lawsuits).

⁴¹ Kuenzel, *supra* note 40, at 78; Mallor, *supra* note 23, at 617.

⁴² Dan B. Dobbs, *Awarding Attorney Fees Against Adversaries: Introducing the Problem*, 1986 *DUKE L.J.* 435, 435 (1986).

⁴³ *Mach. Corp. of Am. v. Gullfiber AB*, 774 F.2d 467, 471 (Fed. Circ. 1985) (explaining that Patent Act was amended in 1946 to add fee-shifting provision); Michael D. Green, *From Here to Attorney's Fees: Certainty, Efficiency, and Fairness in the Journey to the Appellate Courts*, 69 *CORNELL L. REV.* 207, 218 (1984) (“Several older statutes, such as the Clayton Act, the Securities Act of 1933, and the Copyright Act authorize fee shifting as well.”).

⁴⁴ *F.D. Rich Co. Inc. v. U.S. for Use of Indus. Lumber Co. Inc.*, 417 U.S. 116, 129 (1974).

⁴⁵ John P. Dawson, *Lawyers and Involuntary Clients in Public Interest Litigation*, 88 *HARV. L. REV.*

That changed in the second half of the twentieth century with the emergence of public law, or public impact, litigation.⁴⁶ Public law litigation began with structural challenges by public interest groups to segregated schools and other government institutions.⁴⁷ But soon the pool of challengers expanded to individuals who were incentivized by lawmakers to privately enforce public laws.⁴⁸ These so-called ‘private attorneys general’ were incentivized, of course, by the prospect of recovering damages in many cases. Even more important were the one-way fee shifting provisions included in civil rights and environmental legislation that entitled only prevailing plaintiffs to attorney’s fees.⁴⁹

The idea behind one-way fee shifting is relatively straightforward. Certain areas of substantive law—civil rights, environmental, and consumer protection, for example—are socially valuable, and so enforcement is particularly important.⁵⁰ While government agencies police and enforce such laws, limited resources and personnel mean that some violators go unpunished.⁵¹ One alternative is for private citizens (and their lawyers) to step in and fill that gap. But for that to work, the potential benefits of litigation must outweigh its costs.⁵² Various means could be used in an attempt to tip the scales in favor of litigation. Lawmakers could provide for enhanced damages, lower the plaintiff’s burden of proof, increase the availability of

849 (1975); John P. Dawson, *Lawyers and Involuntary Clients: Attorney Fees From Funds*, 87 HARV. L. REV. 1597 (1974). *But see Alyeska*, 421 U.S. at 269 (declining to adopt the ‘private attorney general’ exception to the American Rule in federal court).

⁴⁶ Abram Chayes, *The Role of the Judge in Public Law Litigation*, 89 HARV. L. REV. 1281, 1284 (1976); La Belle, *supra* note 1, at 48-49

⁴⁷ *Brown v. Bd. of Ed.* 347 U.S. 483 (1954); Owen M. Fiss, *Foreword: The Forms of Justice*, 93 HARV. L. REV. 1, 2 (1979) (“Structural reform is premised on the notion that the quality of our social life is affected in important ways by the operation of large-scale organizations, not just by individuals acting either beyond or within these organizations.”).

⁴⁸ La Belle, *supra* note 1, at 48-49.

⁴⁹ Rowe, *supra* note 18, at 662-63.

⁵⁰ *See, e.g.* 42 U.S.C. § 1988(b) (2000) (civil rights suits); Clean Water Act, 33 U.S.C. § 1365 (d); Truth in Lending Act, 15 U.S.C. § 1640(a) (1988); Equal Access to Justice Act, 5 U.S.C. § 504 (1988). Some of these Acts provide for one-way fee shifting on their face, while others have been interpreted by courts—based on legislative history—to sometimes allow fee shifting only in favor of prevailing plaintiffs. *See, e.g.* *Christiansburg Garment Co. v. Equal Emp’t Opportunity Comm’n*, 434 U.S. 412 (1978); *Razore v. Tulalip Tribes of Washington*, 66 F.3d 236 (9th Cir. 1995); *see also* Paul Taylor, *The Difference Between Filing Lawsuits and Selling Widgets: The Lost Understanding That Some Attorneys’ Exercise of State Power Is Subject to Appropriate Regulation*, 4 PIERCE L. REV. 45, 58 (2005) (“By the 1980’s, the Supreme Court went even further by reading one-way fee-shifting statutes broadly and encouraging enforcement under such statutes in a way that tended to grant fees to prevailing plaintiffs while denying them to prevailing defendants.”).

⁵¹ *See* Pamela H. Bucy, *Private Justice*, 76 S. CAL. L. REV. 1, 12-13 (2002); Seth Davis, *Implied Public Rights of Action*, 114 COLUM. L. REV. 1, 27 (2014).

⁵² *See* Harold J. Krent, *Explaining One-Way Fee Shifting*, 79 VA. L. REV. 2039, 2048-50 (1993) (“[F]ee shifting may . . . be an effective way for Congress to deter wrongdoing or, in other words, to improve the primary conduct of both the government and private firms.”).

class relief, or allow third parties to finance litigation.⁵³ For the most part, though, legislatures have opted instead for fee shifting rules that advantage plaintiffs.

By the 1990s, there were over 2,000 fee shifting statutes in the United States, the vast majority of which operate one way in favor of plaintiffs.⁵⁴ The general consensus is that these laws have worked as intended, meaning they have improved—although certainly not perfected—access to justice for plaintiffs.⁵⁵ Indeed, some commentators believe that one-way fee shifting works too well in that it facilitates frivolous claims along with meritorious ones.⁵⁶ As a result, defendants subject to one-way fee shifting provisions are often forced to settle meritless suits because litigating is just too risky.⁵⁷

On the flip side, one-way fee shifting is criticized for having a dampening effect on settlement. Simply put, the rule may discourage settlement because plaintiffs have little to lose and much to gain from litigating to judgment.⁵⁸ For this criticism to be persuasive, we must suppose that settlement is the ultimate goal; that it's always the best way to resolve litigation. Yet, in some cases—particularly the type of public law litigation where one-way fee shifting is used—adjudicating to final judgment is a better solution than settling.⁵⁹ Thus, by discouraging settlement, one-way fee shifting is arguably working exactly how intended.

⁵³ *Id.* at 2048-49, 2048 n.39; Geoffrey J. Lysaught & D. Scott Hazelgrove, *Economic Implications of Third-Party Litigation Financing on the U.S. Civil Justice System*, 8 J.L. ECON. & POL'Y 645, 645 (2012).

⁵⁴ Krent, *supra* note 31, at 416 Vargo, *supra* note 36, at 1629.

⁵⁵ *See* *Evans v. Jeff D.* 475 U.S. 717, 741 (1986) (finding that “the Fees Act has given the victims of civil rights violations a powerful weapon that improves their ability to employ counsel, to obtain access to the courts, and thereafter to vindicate their rights by means of settlement or trial”); Jack B. Weinstein, *Adjudicative Justice in A Diverse Mass Society*, 8 J.L. & POL'Y 385, 390 (2000) (“There are many grounds for pride in our successes in opening up the adjudication system to all. .includ[ing]. .statutes. .providing for fee shifting”). *But see* Issachar Rosen-Zvi, *Just Fee Shifting*, 37 FLA. ST. U. L. REV. 717, 721-22 (2010) (“The overall impact of. .fee-shifting statutes on access to justice has been limited at best”).

⁵⁶ *See, e.g.* Robert G. Bone, *Modeling Frivolous Suits*, 145 U. PA. L. REV. 519, 587 n. 211 (1997); Jeffrey C. Bright, *Unilateral Attorney's Fees Clauses: A Proposal to Shift to the Golden Rule*, 61 DRAKE L. REV. 85, 108 (2012); Thomas D. Rowe, Jr., *Predicting the Effects of Attorney Fee Shifting*, 47 LAW & CONTEMP. PROBS. 139, 153 (1984).

⁵⁷ *See, e.g.* *Coast Bank v. Holmes*, 19 Cal. App. 3d 581, 596-97 (Ct. App. 1971) (“One-sided attorney's fees clauses can thus be used as instruments of oppression to force settlements of dubious or unmeritorious claims.”).

⁵⁸ Sean J. Griffith, *Correcting Corporate Benefit: How to Fix Shareholder Litigation by Shifting the Doctrine on Fees*, 56 B.C. L. REV. 1, 29 (2015) (“[B]ecause [fee-shifting] amplifies the parties' relative optimism and degree of information asymmetry, fee-shifting discourages settlement under most economic models.”); Robert S. Miller, *Attorneys' Fees for Contractual Non-Signatories Under California Civil Code Section 1717: A Remedy in Search of a Rationale*, 32 SAN DIEGO L. REV. 535, 541 (1995).

⁵⁹ *See* Owen M. Fiss, *Against Settlement*, 93 YALE L.J. 1073, 1075 (1984).

As quickly as support for one-way fee shifting grew in the 1960s and 1970s, the momentum faded by the end of the twentieth century. Where lawmakers, courts, and the public once favored fee shifting that spurs litigation,⁶⁰ the focus moved to fee shifting that hampers litigation. There was supposedly a “litigation explosion” plaguing our judicial system that two-way fee shifting would help fix.⁶¹

C. Two-Way Fee Shifting

The claim that the U.S. justice system was in crisis and was suffering from a litigation explosion became ubiquitous by the late 1980s.⁶² Politicians, big companies, and the popular media subscribed to the notion that overly litigious plaintiffs (and their lawyers) were burdening our courts and needed to be reined in.⁶³ Though little empirical evidence supported these allegations,⁶⁴ the Bush administration joined the chorus and called for litigation reform.⁶⁵ To this end, then-Vice President Dan Quayle was appointed to lead the Council on Competitiveness, an organization committed to protecting American business interests.⁶⁶

After conducting hearings, the Quayle Council published its *Agenda for Civil Justice Reform* in 1991.⁶⁷ Among its many proposals was the recommendation that two-way fee shifting, or the English Rule, be implemented in federal diversity suits.⁶⁸ A ‘loser pays’ rule arguably reduces the number of baseless lawsuits, encourages meritorious ones, and makes prevailing parties whole.⁶⁹ Moreover, parties subject to two-way fee shifting are less likely to engage in excessive discovery and motion practice.⁷⁰

⁶⁰ See, e.g. Rosen-Zvi, *supra* note 55, at 760 (scholars commonly argue that one-way fee shifting “increase[s] the overall number of actions filed”). But see Richard A. Posner, *ECONOMIC ANALYSIS OF LAW* 585, 593 (6th ed. 2003) (“[O]ne-way indemnity may not even generate more litigation than the American (no-indemnity) rule does.”).

⁶¹ Arthur R. Miller, *The Pretrial Rush to Judgment: Are the ‘Litigation Explosion,’ ‘Liability Crisis,’ and Efficiency Cliches Eroding Our Day in Court and Jury Trial Commitments?*, 78 N.Y.U. L. REV. 982, 985 (2003); Jack B. Weinstein, *Procedural Reform as a Surrogate for Substantive Law Revision*, 59 BROOK. L. REV. 827, 829 (1993).

⁶² See, e.g. Randy M. Mastro, *The Myth of the Litigation Explosion*, 60 FORDHAM L. REV. 199 (1991).

⁶³ See, e.g. Marc Galanter, *Real World Torts: An Antidote to Anecdote*, 55 MD. L. REV. 1093, 1094-95 (1996); Miller, *supra* note 61, at 985-86.

⁶⁴ Galanter, *supra* note 63, at 1098.

⁶⁵ *Symposium on Civil Justice Reform: Forward*, 42 AM. U. L. REV. 1245, 1245 (1993).

⁶⁶ Paul D. Carrington, *Politics and Civil Procedure Rulemaking: Reflections on Experience*, 60 DUKE L.J. 597, 627-28 (2010).

⁶⁷ *Id.* at 628.

⁶⁸ Mark S. Stein, *Is One-Way Fee Shifting Fairer than Two-Way Fee Shifting?*, 141 F.R.D. 351, 351 (1992).

⁶⁹ See, e.g. *Fogerty v. Fantasy, Inc.*, 510 U.S. 517, 525 (1994) (“The most common reason advanced in support of the dual approach is that, by awarding attorney’s fees to prevailing plaintiffs as a matter of course, it encourages litigation of meritorious claims of copyright infringement.”); Walter Olson & David Bernstein, *Loser-Pays: Where Next?*, 55 MD. L. REV. 1161, 1161 (1996).

⁷⁰ Olson & Bernstein, *supra* note 69, at 1162.

This movement toward the English system gained some traction in the 1990s. Not only was the public's interest in the topic piqued,⁷¹ lawmakers gave it serious consideration too. A loser pays bill passed the House of Representatives,⁷² Congress enacted the Private Securities Litigation Reform Act with a two-way fee shifting provision,⁷³ and a few states adopted loser pays statutes for certain types of civil suits.⁷⁴ With time, however, the fervor for fee shifting waned due in part to the Clinton Administration's opposition to loser pays rules as 'tilt[ing] the legal playing field dramatically to the disadvantage of consumers and middle-class citizens.'⁷⁵ This is especially true for those plaintiffs relying on contingency fee arrangements.⁷⁶

For the past two decades, civil litigation reform has taken a different course. The judiciary—the Supreme Court in particular—has addressed topics ranging from pleading standards to class certification to arbitration clauses to personal jurisdiction.⁷⁷ The Court's decisions on all these matters are considered 'pro-defendant,' in that they make it more difficult for plaintiffs to sue.⁷⁸ So while widespread two-way fee shifting failed to take root in the U.S., the landscape of our civil litigation system has been transformed nonetheless.

Despite these substantial changes, there have been calls for further reform with respect to patent litigation.⁷⁹ Similar to the rhetoric of the late twentieth century, critics say we have a patent litigation 'crisis' or 'explosion' on our hands.⁸⁰ They claim that this crisis has been caused primarily by patent assertion entities (PAEs), more pejoratively known as 'patent trolls,' which are companies that own and enforce patents, but do not practice them.⁸¹ PAEs—much like the supposedly overly-litigious plaintiffs of the early 1990s—rely heavily on contingency fee arrange-

⁷¹ Krent, *supra* note 31, at 415.

⁷² 141 Cong. Rec. H2749-02 (daily ed. Mar. 7, 1995) (Roll Call Vote No. 207).

⁷³ 15 U.S.C. §§ 77z-1(c), 78u-4(c) (2000).

⁷⁴ Olson & Bernstein, *supra* note 69, at 1175-80.

⁷⁵ 53 Cong. Q. 744, 745 (Mar. 11, 1995) (quoting letter from Attorney General Janet Reno and White House Counsel Abner J. Mikva to House Speaker Newt Gingrich).

⁷⁶ Mallor, *supra* note 23, at 618 ("Even a litigant who had a contingent fee arrangement with his own attorney would be deterred from filing suit; this would cancel the benefit of the contingency fee as a means of financing litigation for litigants of modest means.").

⁷⁷ Arthur R. Miller, McIntyre in *Context: A Very Personal Perspective*, 63 S.C. L. REV. 465, 471-72 (2012).

⁷⁸ *Id.* at 472-74.

⁷⁹ Paul R. Gugliuzza, *Patent Litigation Reform: The Courts, Congress, and the Federal Rules of Civil Procedure*, 95 B.U. L. REV. 279, 281 (2015).

⁸⁰ See, e.g. James Bessen & Michael J. Meurer, *The Patent Litigation Explosion*, 45 LOY. U. CHI. L.J. 401, 402 (2013); Dan L. Burke & Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It*, 23 SYRACUSE SCI. & TECH. L. REP. 1, 1 (2009).

⁸¹ See, e.g. Colleen V. Chien & Mark A. Lemley, *Patent Holdup, the ITC, and the Public Interest*, 98 CORNELL L. REV. 1, 2 (2012); Colleen V. Chien, *Of Trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-Tech Patents*, 87 N.C. L. REV. 1571, 1573-74 (2009).

ments.⁸² Thus, numerous bills have been introduced in Congress to overhaul the way patent cases are litigated.⁸³ Although the Patent Act already allows for fee-shifting in exceptional cases,⁸⁴ many of these bills feature robust fee shifting provisions.

II. Fee Shifting in Patent Cases

Two-way fee shifting is rare in the United States, yet has been available in patent cases for the past seventy years. That said, Congress intended fee shifting to be invoked only in a small subset of patent cases. Courts have heeded that advice, limiting fee shifting in some circumstances perhaps even more than Congress had expected. The questions now facing Congress are whether the time has come to re-tool the patent fee shifting statute to make it broader and, if so, what that new statute should look like.

A. History of § 285

Historically, patent cases were governed by the American Rule like most other types of civil suits.⁸⁵ That changed in 1946 when Congress amended the Patent Act to provide for two-way fee shifting. The purpose of this new law was two-fold. First, Congress believed it would deter willful infringement ‘by anyone thinking that all he would be required to pay if he loses the suit would be a royalty.’⁸⁶ Second, two-way fee shifting would ‘enable the court to prevent a gross injustice to an alleged infringer.’⁸⁷

The original patent fee shifting statute, then-codified at 35 U.S.C. § 70, stated that a court ‘may in its discretion award reasonable attorney’s fees to the prevailing party upon the entry of judgment in any patent case.’⁸⁸ On its face, the statute lacked guidance about when to award fees. But the legislative history and cases interpreting § 70 make clear that fee shifting was reserved for ‘extraordinary circumstances,’ such as cases involving inequitable conduct or vexatious litigation.⁸⁹

The Patent Act of 1952 amended the fee shifting statute and recodified it at 35 U.S.C. § 285, where it remains in the same form today. Section 285, in its entirety, provides that ‘[t]he court in exceptional cases may award reasonable attorney fees

⁸² See David L. Schwartz, *The Rise of Contingent Fee Representation in Patent Litigation*, 64 ALA. L. REV. 335, 355-56 (2012).

⁸³ Gugliuzza, *supra* note 79, at 281.

⁸⁴ 35 U.S.C. § 285.

⁸⁵ *Octane Fitness, LLC v. ICON Health & Fitness, Inc.* 134 S.Ct. 1749, 1753 (2014).

⁸⁶ S. Rep. No. 1503 (1946), in 1946 U.S.C.C.S. 1386, 1387.

⁸⁷ *Id.*

⁸⁸ 35 U.S.C. § 70 (1946 ed.).

⁸⁹ *Pennsylvania Crusher Co. v. Bethlehem Steel Co.* 193 F.2d 445, 451 (3d Cir. 1951); *Park-in-Theaters, Inc. v. Perkins*, 190 F.2d 137, 142 (9th Cir. 1951); S. Rep. No. 1503 (1946), in 1946 U.S.C.C.S. 1386, 1387.

to the prevailing party.⁹⁰ While the language differed from the 1946 version, Congress did not intend to change the substance of the statute.⁹¹ Instead, this was a clarifying amendment to ‘expres[s] the intention of the [1946] statute as shown by its legislative history and as interpreted by the courts.’⁹² Thus, in the decades after recodification—just as in the years before—district courts interpreted and applied the patent fee shifting statute in a discretionary manner, considering the totality of the circumstances and deciding whether a particular case was ‘exceptional’ to warrant fees.⁹³

Although the 1952 Act did not change the way courts approached fee shifting, it overhauled many other features of the patent system.⁹⁴ The Act strengthened patent owners’ rights, ultimately leading to more applications at the PTO and more issued patents.⁹⁵ At the same time, courts were invalidating patents at very high rates,⁹⁶ and the circuits were sharply divided on many substantive patent law doctrines.⁹⁷ This fracture among the courts created a sense of unfairness, generated instability, and promoted forum shopping in patent cases.⁹⁸ In an effort to address these deficiencies, Congress created the U.S. Court of Appeals for the Federal Circuit in 1982.⁹⁹

B. The Federal Circuit’s Approach to Fee Shifting

The primary purpose of the Federal Circuit was to bring greater uniformity to patent law.¹⁰⁰ The idea was that a ‘single court of appeals for patent cases [would]

⁹⁰ 35 U.S.C. § 285.

⁹¹ *Octane*, 134 S.Ct. at 1753; 1 PATENT LAW CODIFICATION & REVISION 77, 108-09 (1952).

⁹² *Id.* at 1753 n.2.

⁹³ *Id.* at 1753.

⁹⁴ Robert P. Merges, *One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000*, 88 CAL. L. REV. 2187, 2221-24 (2000).

⁹⁵ James E. Daily & F. Scott Kieff, *Anything Under the Sun Made by Humans: Patent Law Doctrines As Endogenous Institutions for Commercializing Innovation*, 62 EMORY L.J. 967, 971 n.15 (2013) (“Diverse jurists immediately recognized the power of the 1952 Act in strengthening patents”); Merges, *supra* note 94, at 2221-24 (discussing how the 1952 Act benefitted patent owners).

⁹⁶ John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 206 n.53 (1998) (reporting that in the 1970s, only about thirty-five percent of litigated patents were held valid).

⁹⁷ David O. Taylor, *Formalism and Antiformalism in Patent Law Adjudication: Rules and Standards*, 46 CONN. L. REV. 415, 468 (2013).

⁹⁸ *See Comm’n on Revision of the Fed. Court Appellate Sys. Structure & Internal Procedures: Recommendations for Change* (1975), reprinted in 67 F.R.D. 195, 220 (“[D]isparity in results in different circuits leads to widespread forum shopping[which] ‘demeans the entire judicial process and the patent system as well.’ ”); Megan M. La Belle, *The Local Rules of Patent Procedure*, 47 AZ. ST. L.J. 63, 83-84 (2015).

⁹⁹ Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, § 101, 96 Stat. 25.

¹⁰⁰ H.R. REP. NO. 97-312, at 20 (1981) (“Patent litigation long has been identified as a problem area, characterized by undue forum-shopping and unsettling inconsistency in adjudications.”); S. REP. NO. 97-275, at 5 (1981) (“The creation of the Court of Appeals for the Federal Circuit will produce desirable uniformity in this area of the law. Such uniformity will reduce the forum-shopping

promote certainty,¹⁰¹ and so the Federal Circuit was granted exclusive appellate jurisdiction over most patent-related cases. Commentators generally agree that the Federal Circuit has taken this congressional mandate to heart, and patent doctrine has become more uniform over the past three decades.¹⁰²

One way the Federal Circuit has accomplished this uniformity goal is by preferring bright-line rules to more flexible standards.¹⁰³ There is a rich literature discussing this trend in the Federal Circuit and the impact it has had on patent law.¹⁰⁴ The court adopted such bright-line rules for patentable subject matter, obviousness, declaratory judgment jurisdiction, and permanent injunctions, to name just a few.¹⁰⁵

The Federal Circuit's proclivity toward bright-line rules is similarly apparent in its fee shifting jurisprudence. As noted above, for a long time after the 1952 Act, district courts decided exceptionalism for fee shifting purposes under a totality of the circumstances test.¹⁰⁶ But that changed in 2005 when the Federal Circuit rejected this well-established, malleable standard in *Brooks Furniture Mfg. Inc. v. Dutailier Int'l, Inc.*¹⁰⁷

The accused infringer in *Brooks Furniture* sought a declaratory judgment of noninfringement and invalidity with respect to a design patent for rocking chair trim.¹⁰⁸ The district court granted summary judgment of noninfringement, determined the case was exceptional under § 285, and awarded attorney's fees.¹⁰⁹ The court awarded fees because it believed the patent owner's litigation tactics were inappropriate and its infringement position was frivolous.¹¹⁰

The Federal Circuit reversed on appeal and announced a new rule for deciding whether a case is exceptional under § 285. Cases are exceptional, the court explained, in only two circumstances.¹¹¹ First, 'when there has been some material

that is common to patent litigation.').

¹⁰¹ H.R. Rep. No. 97-312, at 23.

¹⁰² La Belle, *Local Rules*, *supra* note 98, at 84.

¹⁰³ Taylor, *supra* note 97, at 478.

¹⁰⁴ See, e.g. Peter Lee, *Patent Law and the Two Cultures*, 120 YALE L.J. 2 (2010); Taylor, *supra* note 97, at 468-69; John R. Thomas, *Formalism at the Federal Circuit*, 52 AM. U. L. REV. 771, 794 (2003).

¹⁰⁵ See, e.g. *Bilski v. Kappos*, 561 U.S. 593, 136 (2010) (patentable subject matter); *KSR Int'l Co. v. Teleflex Inc.* 550 U.S. 398, 418-19 (2007) (obviousness); *MedImmune, Inc. v. Genentech, Inc.* 549 U.S. 118 (2007) (declaratory judgment jurisdiction); *eBay Inc. v. MercExchange, L.L.C.* 547 U.S. 388, 391 (2006) (permanent injunctions).

¹⁰⁶ *Octane*, 134 S. Ct. at 1753.

¹⁰⁷ See *Brooks Furniture Mfg. Inc. v. Dutailier Int'l, Inc.* 393 F.3d 1378 (Fed. Cir. 2005), *abrogated by Octane Fitness, LLC v. ICON Health & Fitness, Inc.* 134 S. Ct. 1749 (2014).

¹⁰⁸ *Brooks Furniture*, 393 F.3d at 1379-80.

¹⁰⁹ *Id.* at 1380.

¹¹⁰ *Id.* at 1382.

¹¹¹ *Id.* at 1381-82.

inappropriate conduct related to the matter in litigation.¹¹² Such conduct might include willful infringement, fraud or inequitable conduct in procuring the patent, misconduct during litigation, vexatious or unjustified litigation, or conduct that violates Federal Rule of Civil Procedure 11.¹¹³

Second, a case may be deemed exceptional if the litigation was brought in subjective bad faith and the litigation is objectively baseless. A prevailing defendant must prove, in other words, that the plaintiff *actually knew* the litigation was objectively baseless.¹¹⁴ And the defendant can only do that, the Federal Circuit pronounced, with clear and convincing evidence because “[t]here is a presumption that the assertion of infringement of a duly granted patent is made in good faith.”¹¹⁵ Applying this new test, the court reversed the fee award in *Brooks Furniture* because the accused infringer could not prove by clear and convincing evidence that the patent owner knew its case was objectively baseless.¹¹⁶

Like in *Brooks Furniture*, prevailing defendants in patent cases generally have struggled to recover attorney’s fees.¹¹⁷ A recent study by Saurabh Vishnubhakat analyzed over 200 fee awards from 2003-2013 and found that only 29% of the fee awards that are granted go to defendants, with 71% going to plaintiffs.¹¹⁸ Notably, however, Vishnubhakat found that in the rare instances when defendants were awarded fees, the median amounts were much higher than for plaintiffs.¹¹⁹ The study further concludes that fee awards vary by district and based on the underlying technology.¹²⁰

Though difficult to prove empirically, it seems reasonable to conclude that the Federal Circuit’s bright-line rule in *Brooks Furniture* is one of the reasons that fee awards for defendants have been so elusive. In some cases, district courts refused to award fees because the *Brooks Furniture* framework was not met,¹²¹ while in others the district court awarded fees only to be reversed by the Federal Circuit.¹²²

¹¹² *Id.* at 1381.

¹¹³ *Id.*

¹¹⁴ *iLOR, LLC v. Google, Inc.* 631 F.3d 1372, 1377 (Fed. Cir. 2011). The Federal Circuit in *iLOR* also clarified that ‘objectively baseless’ means ‘so unreasonable that no reasonable litigant could believe it would succeed.’ *Id.* at 1378.

¹¹⁵ *Brooks Furniture*, 393 F.3d at 1382.

¹¹⁶ *Id.* at 1385.

¹¹⁷ *See, e.g.* James Bessen & Michael J. Meurer, *The Private Costs of Patent Litigation*, 9 J.L. ECON. & POL’Y 59, 81 tbl. 6 (2012) (finding that 68% of fee awards were to plaintiffs and 32% to defendants); Mark Liang & Brian Berliner, *Fee Shifting in Patent Litigation*, 18 VA. J.L. & TECH. 59, 87-88 (2013) (finding that 68% of fee awards were to plaintiffs and 32% to defendants); Saurabh Vishnubhakat, *What Patent Attorney Fee Awards Really Look Like*, 63 DUKE L.J. ONLINE 15, 25 (2014) (finding that 71% of fee awards were to plaintiffs and 29% to defendants).

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *Id.* at 26-29.

¹²¹ *See, e.g.* *Octane*, 134 S.Ct. at 1755.

¹²² *See, e.g.* *Highmark*, 134 S.Ct. at 1747.

As with many areas of patent law, commentators called for reform and the Supreme Court stepped in.¹²³

C. The Supreme Court's Approach to Fee Shifting

In 2014, the Supreme Court decided two cases—*Octane Fitness LLC v. ICON Health and Fitness, Inc.* and *Highmark, Inc. v. Allcare Health Mgmt. Sys. Inc.*—that have turned the tide for fee shifting in patent cases. *Octane* addressed the question of what makes a case ‘exceptional’ under § 285, while *Highmark* addressed the standard that appellate courts should use in reviewing fee decisions. Consistent with recent trends in the patent space,¹²⁴ the Supreme Court reversed the Federal Circuit in both cases.

Octane involved a patent dispute over an elliptical exercise machine.¹²⁵ ICON, the patent owner, sued Octane for infringement in the U.S. District Court for the District of Minnesota. After prevailing on a motion for summary judgment based on noninfringement, Octane sought attorney’s fees.¹²⁶ The court denied the fee motion under the *Brooks Furniture* rule, finding that ICON’s claim was neither objectively baseless nor brought in subjective bad faith.¹²⁷ On appeal, the Federal Circuit affirmed rejecting Octane’s argument that the *Brooks Furniture* rule was ‘overly restrictive.’¹²⁸

The Supreme Court granted Octane’s petition for certiorari and reversed, explaining that the *Brooks Furniture* framework is ‘unduly rigid’ and ‘encumbers the statutory grant of discretion to district courts.’¹²⁹ In reaching this conclusion, the Court focused on the plain language of § 285, which simply requires that a case be ‘exceptional’ to warrant a fee award. Because the Patent Act does not define ‘exceptional,’ the Court ascribed the term its ordinary meaning: uncommon, rare, or not ordinary.¹³⁰

Thus, the Court held, a case is exceptional under § 285 as long as it ‘stands out from others with respect to the substantive strength of a party’s litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated.’¹³¹ The Court went on to say that lower

¹²³ See, e.g. Randall R. Rader, Colleen V. Chien & David Hricik, Op-Ed, *Making Patent Trolls Pay in Court*, N.Y. TIMES, June 5, 2013, at A25.

¹²⁴ See, e.g. Daniel Kazhdan, *Beyond Patents: The Supreme Court’s Evolving Relationship With the Federal Circuit*, 94 J. PAT. & TRADEMARK OFF. SOC’Y 275, 278-82 (2012) (discussing trends in the Supreme Court’s patent opinions).

¹²⁵ *Octane*, 134 S.Ct. at 1754.

¹²⁶ *Id.* at 1755.

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Id.* at 1756.

¹³¹ *Id.*

courts should decide exceptionalism on a case-by-case basis considering the totality of the circumstances.¹³² Hence, *Octane*—like many other recent Supreme Court patent decisions—rejected the Federal Circuit’s bright-line rule for a more flexible standard.

Highmark, the companion case to *Octane*, addressed the appropriate standard of review for fee shifting decisions. *Highmark, Inc.*, a health insurance company, filed an action in the U.S. District Court for the Northern District of Texas against Allcare Health, the owner of a patent covering ‘utilization review’ in managed health care systems.¹³³ *Highmark* sought a declaratory judgment that Allcare’s patent was invalid, unenforceable, and not infringed, and Allcare counterclaimed for infringement.¹³⁴ The district court entered summary judgment of noninfringement in favor of *Highmark*.

Highmark then filed a motion for attorney’s fees under 35 U.S.C. § 285. The district court determined that the case was exceptional because Allcare engaged in ‘vexatious’ and ‘deceitful’ litigation conduct, and pursued infringement claims despite its own experts demonstrating that such claims lacked merit.¹³⁵ Accordingly, the district court granted the motion and awarded *Highmark* more than \$5 million in fees.¹³⁶ On appeal, the Federal Circuit—applying a *de novo* standard of review—reversed the exceptional case determination with respect to one of the patent claims in issue.¹³⁷

The Supreme Court granted certiorari in *Highmark* and once again reversed the Federal Circuit. Relying on *Octane*, the Court held that the question whether a case is ‘exceptional’ is committed to the discretion of the district court.¹³⁸ Thus, the Court explained, all aspects of the § 285 determination are reviewed on appeal for an abuse of discretion, not *de novo* as was the Federal Circuit’s practice.¹³⁹

Taken together, *Octane* and *Highmark* have the potential to shift the landscape of patent litigation. While it’s still too soon to understand the full impact of these cases, early studies suggest that parties are bringing fee motions at higher rates, courts are more willing to grant them, and accused infringers are more likely to recover than in the pre-*Octane* era.¹⁴⁰ Whatever changes they ultimately achieve, *Oc-*

¹³² *Id.*

¹³³ 134 S. Ct. at 1747.

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.* at 1748.

¹³⁹ *Id.* at 1749.

¹⁴⁰ See, e.g. Hannah Jiam, *Fee Shifting and Octane Fitness: An Empirical Approach Toward Understanding ‘Exceptionalism’*, 30 BERKELEY TECH L.J. 611, 623, 630 (2015) (finding that the number of fees motion has risen and courts are more likely to grant those motions post *Octane*); Mallun Yen, *Fee-Shifting Before and After the Supreme Court Decisions*, INSIDE COUNSEL,

tane and *Highmark* are probably not a panacea for the problems supposedly plaguing our patent litigation system.¹⁴¹ Consequently, reformers continue to advocate for a broader fee shifting statute for patent cases.

D. Legislative Proposals for Fee Shifting

Congress passed the America Invents Act, the most significant overhaul to the U.S. patent system in over half a century, in 2011.¹⁴² Yet, less than two years later, calls for further reform began. More than a dozen bills were introduced in Congress between 2013 and 2015, many of which included fee shifting provisions.¹⁴³ The fee provisions in these bills varied. Some were one-way, awarding fees only to the accused infringer, while others were two-way, allowing either prevailing party to recover.¹⁴⁴ Certain of these bills targeted PAEs, while others drew no distinctions based on the identity of the parties.¹⁴⁵

This legislative effort culminated with two leading bills emerging from the House and the Senate. The Innovation Act—the House version of the bill—and the Protecting American Talent and Entrepreneurship (PATENT) Act—the Senate version of the bill—contain relatively similar fee shifting provisions.¹⁴⁶ Although a detailed analysis of these provisions is beyond the scope of this Article, a few key points should be highlighted.

First, the bills are two-way, meaning a court may award fees to either a prevailing patent owner or accused infringer.¹⁴⁷ Second, both bills make fee shifting mandatory unless the court finds that (1) the losing party's position and conduct was reasonable, or (2) special circumstances (e.g., undue economic hardship) would make an award unjust.¹⁴⁸ Third, the bills contemplate the joinder of interested parties to facilitate the recovery of fees.¹⁴⁹ Fourth, the bills include exceptions for universities and certain technology transfer organizations.¹⁵⁰ Finally, and most perti-

<http://www.insidecounsel.com/2015/02/25/fee-shifting-before-and-after-the-supreme-court-dec-25-2015>) (finding that accused infringers are winning fee awards at higher rates than before *Octane*).

¹⁴¹ See, e.g. Eric Coe, *Collecting Fees Still Tough After Octane, Highmark Cases*, LAW 360 (Aug. 28, 2015) (discussing the limitations on fee shifting even after *Octane* and *Highmark*); Yen, *supra* note 139 (“reformers assert that fee-shifting won’t be truly effective without further legislation”).

¹⁴² Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

¹⁴³ See Patent Progress, *Patent Progress’s Guide to Federal Patent Reform Legislation*, available at <http://www.patentprogress.org/patent-progress-legislation-guides/patent-progresss-guide-patent-reform-legislation/> (collecting and summarizing patent reform bills that have been introduced since 2013); Gugliuzza, *supra* note 79, at 281 (discussing various bills and their provisions).

¹⁴⁴ Bernstein, *supra* note 1, at 1493-94.

¹⁴⁵ *Id.*

¹⁴⁶ Innovation Act, H.R. 9 (2015); PATENT Act, S. 1137 (2015).

¹⁴⁷ H.R. 9, § 3(b); S. 1137 § 7(b).

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

ment to this Article, both bills allow for the recovery of fees incurred ‘in connection with a civil action.’¹⁵¹

What neither the Innovation Act nor the PATENT Act (nor any other bill for that matter) clarifies is what it means to incur fees ‘in connection with a civil action.’ Does that only include fees for work before the district court? Or does it also include fees for proceedings conducted before an administrative body, namely the PTO? In light of the steep rise in the use of PTO proceedings since the AIA,¹⁵² these are important questions to answer.

III. Fee Shifting for Administrative Proceedings

The AIA effected major changes in American patent law. Our priority system switched from first-to-invent to first-to-file,¹⁵³ the definition of prior art expanded,¹⁵⁴ and the ability to join defendants in patent suits was restricted.¹⁵⁵ Perhaps the most substantial change, however, was the creation of the Patent Trial and Appeal Board (PTAB) and various administrative proceedings for challenging patent validity at the PTO.¹⁵⁶ Though the PTO conducted post-grant proceedings before the AIA, Congress designed the new proceedings—including inter partes review (IPR), post-grant review (PGR), and covered business method review (CBM)—so they would be more effective for litigants.¹⁵⁷ That is to say, Congress hoped to encourage the use of PTAB proceedings as a means of streamlining and reducing the cost of patent litigation.¹⁵⁸

PTAB proceedings, it turns out, are far more popular than anyone anticipated.¹⁵⁹ Between September 16, 2012 (when the AIA became effective) and October 31, 2016, 5,811 PTAB petitions were filed (5,292 IPRs, 481 CBMs, and 38 PGRs).¹⁶⁰

¹⁵¹ *Id.*

¹⁵² See, e.g. Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHI. L. REV. DIALOGUE 93, 93 (2014) (“In the roughly two years since *inter partes* review replaced *inter partes* reexamination, petitioners have filed almost two thousand requests for the Patent Trial and Appeal Board . . . to review the validity of issued U.S. patents.”).

¹⁵³ Leahy-Smith America Invents Act, *supra* note 5, § 3.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.* § 19 at 331-33.

¹⁵⁶ *Id.* §§ 6, 7, 18 at 299-316, 329-31.

¹⁵⁷ *Id.* §§ 6, 18. For example, PTAB proceedings are resolved much faster than their predecessors, the estoppel provisions are more forceful, and there are additional procedural protections, including the right to discovery and an oral hearing. *Id.* §§ 6, 18.

¹⁵⁸ See Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. B.J. 539, 653 (2012).

¹⁵⁹ See, e.g. Rochelle Cooper Dreyfuss, *Giving the Federal Circuit A Run for Its Money: Challenging Patents in the PTAB*, 91 NOTRE DAME L. REV. 235, 251 (2015) (“[T]hese statistics speak loudly about the public’s eagerness and ability to use these procedures to ‘weed out’ bad patents”).

¹⁶⁰ United States Patent & Trademark Office, *Patent Trial and Appeal Board Statistics*, available at https://www.uspto.gov/sites/default/files/documents/aia_statistics_october2016.pdf (Oct. 31, 2016). PGR applies only to those patents issued under the new first-to-file system, and very few

Early data show that challengers are enjoying high rates of success at the PTAB, meaning that a significant percentage of patent claims have been cancelled.¹⁶¹ There is also evidence that the vast majority of PTAB proceedings involve parallel district court litigation.¹⁶² The popularity of these proceedings has led some critics to refer to the PTAB as a ‘death squad’¹⁶³ and ‘killing field.’¹⁶⁴ Other commentators claim the PTAB is simply doing what Congress intended: eliminating bad patents.¹⁶⁵

Without wading into this debate, what’s clear is that patent owners and accused infringers alike are expending significant resources, including attorney’s fees, on PTAB proceedings. The median cost of IPR, for example, is \$275,000 through the PTAB hearing or \$350,000 if appealed to the Federal Circuit.¹⁶⁶ So, if a prevailing party in a patent litigation is entitled to recover reasonable expenses and fees, does that include fees for work before the PTO? Notably, this question is not one of first impression for the Federal Circuit, as the court addressed it almost three decades ago in *PPG Indus. Inc. v. Celanese Polymer Specialties Co. Inc.* in the context of pre-AIA administrative proceedings.¹⁶⁷ The decision in *PPG*, which I argue is flawed, is explored below in Subsection C. Before addressing *PPG*, however, this Part provides a summary of the Supreme Court’s and other Circuit Courts’ jurisprudence on fee shifting for administrative proceedings outside of the patent context.

A. Supreme Court Jurisprudence

The 1960s and 1970s witnessed a substantial expansion of the administrative state with the creation of agencies like the Equal Employment Opportunity Com-

first-to-file patents have been issued so far.

¹⁶¹ Love & Ambwani, *supra* note 152, at 101-02. A more recent study shows that, since 2012, the rate at which the PTAB is invalidating claims has slowly and consistently declined. Saurabh Vishnubhakat, Arti K. Rai, & Jay P. Kesan, *Strategic Decision Making in Dual PTAB and District Court Proceedings*, 31 BERKELEY TECH L.J. 45, 78 (2016).

¹⁶² Love & Ambwani, *supra* note 152, at 103 (finding that in 80% of IPRs the challenged patent was also asserted in litigation between petitioner and respondent); Vishnubhakat, et al. *supra* note 161, at 69 (finding that about 87.6% of IPR- and CBM-challenged patents are also being litigated in federal court).

¹⁶³ Rob Sterne & Gene Quinn, *PTAB Death Squads: Are all Commercially Viable Patents Invalid?*, IP WATCHDOG (Mar. 24, 2014), <http://www.ipwatchdog.com/2014/03/24/ptab-death-squads-are-all-commercially-viable-patents-invalid/id=48642/> (quoting the comments of former Federal Circuit Chief Judge Randall Rader made at the 2013 AIPLA annual meeting in Washington, DC).

¹⁶⁴ Erich Spangenberg, *Patent Predictions for 2015*, IPNAV BLOG (Jan. 2015), <http://www.ipnav.com/blog/erich-spangenbergs-patent-predictions-for-2015/>.

¹⁶⁵ See Ryan Davis, *PTAB’s ‘Death Squad’ Label Not Totally Off-Base, Chief Says*, LAW 360 (Aug. 14, 2014) (quoting the former Chief Judge of the PTAB, James Smith, as saying that if the PTAB was not “doing some ‘death squadding,’ [it] would not be doing what the [AIA] calls on [the PTAB] to do”); Dreyfuss, *supra* note 159, at 255 (saying that many claims cancelled by the PTAB “deserve to die”).

¹⁶⁶ LAW PRACTICE MANAGEMENT COMMITTEE, AMERICAN INTELLECTUAL PROPERTY LAW ASS’N, REPORT OF THE ECONOMIC SURVEY 2015 38 (2015).

¹⁶⁷ *PPG Indus. Inc. v. Celanese Polymer Specialties Co.* 840 F.2d 1565, 1567 (Fed. Cir. 1988).

mission (EEOC) and the Environmental Protection Agency (EPA), among many others.¹⁶⁸ Concomitantly, Congress was enacting civil rights and environmental legislation that included fee shifting provisions to encourage enforcement of these new rights.¹⁶⁹ It comes as no surprise, then, that courts soon faced the question whether prevailing parties—absent explicit guidance from Congress—may recover attorney’s fees for work performed before administrative tribunals.

1. Fee Shifting in Civil Rights Cases

Beginning in 1980, the Supreme Court decided a trilogy of cases addressing this question in the civil rights context. The first case, *New York Gaslight Club, Inc. v. Carey*,¹⁷⁰ involved a plaintiff who claimed she was denied a position as a cocktail waitress because of her race.¹⁷¹ As required by Title VII of the Civil Rights Act, the plaintiff Carey filed a complaint with the EEOC, and the EEOC referred her complaint to the New York State Division of Human Rights (“Division”).¹⁷² The Division found probable cause that Carey had been unlawfully discriminated against and, after a hearing, ordered New York Gaslight Club (“Club”) to offer her employment and pay back wages.¹⁷³

While the Club appealed the Division’s decision, Carey pursued her EEOC charge. Relying largely on the Division’s findings, the EEOC also found probable cause and issued Carey a right to sue letter.¹⁷⁴ Carey then filed suit under Title VII in federal district court in New York seeking damages, injunctive relief, and attorney’s fees.¹⁷⁵ Soon after filing the federal action, the Division’s decision was affirmed on appeal and the Club agreed to comply with the Division’s order.¹⁷⁶ Thus, the only issue remaining for the court was Carey’s request for attorney’s fees, the vast majority of which were incurred for work before the Division and EEOC.¹⁷⁷ The district court refused to award Carey fees, the Second Circuit reversed, and the Supreme Court granted certiorari.¹⁷⁸

The Supreme Court affirmed the Second Circuit holding that Carey was entitled to recover attorney’s fees incurred in connection with the administrative proceedings. The Court began its analysis with the language of the relevant fee shifting provision, section 706(k) of the Civil Rights Act of 1964. Section 706(k) provided that “[i]n *any action or proceeding* under this title the court, in its discretion, may

¹⁶⁸ See Kristen Hickman & Richard Pierce, Jr. *FEDERAL ADMINISTRATIVE LAW* (2010).

¹⁶⁹ See *supra* Part I.B.

¹⁷⁰ *New York Gaslight Club, Inc. v. Carey*, 447 U.S. 54 (1980).

¹⁷¹ *Id.* at 56.

¹⁷² *Id.* at 57.

¹⁷³ *Id.*

¹⁷⁴ *Id.* at 58.

¹⁷⁵ *Id.*

¹⁷⁶ *Id.* at 58-59.

¹⁷⁷ *Id.* at 59.

¹⁷⁸ *Id.* at 59-60.

allow the prevailing party, other than the Commission or the United States, a reasonable attorney's fee as part of the costs.¹⁷⁹ The fact that the statute referred not only to 'action' but to 'proceeding' was critically important to the Court. 'The words of § 706(k) leave little doubt that fee awards are authorized for legal work done in 'proceedings' other than court actions.'¹⁸⁰ This is particularly true where, as here, the administrative proceedings in question were mandatory.¹⁸¹

What is more, the *Carey* Court opined, this plain language interpretation of § 706(k) is supported by the legislative history. Allowing a prevailing plaintiff like *Carey* to recover fees for administrative proceedings furthers the objective of § 706(k), namely to 'facilitate the bringing of discrimination complaints.'¹⁸² A contrary rule would force victims of discrimination to bear the costs of mandatory administrative proceedings, which no doubt would deter the enforcement of many meritorious civil rights claims.¹⁸³

The second case in the trilogy—*Webb v. Dyer County Board of Education*—presented a similar set of facts as *Carey*, but involved a different statutory scheme.¹⁸⁴ Leonard Webb, a schoolteacher, claimed he was terminated on the basis of his race and pursued administrative remedies as provided by Tennessee law. After several hearings, the Board of Education of Dyer County, Tennessee, upheld Webb's dismissal.¹⁸⁵ Webb then filed a federal action under 42 U.S.C. § 1983 alleging violations of civil rights laws and the Constitution. The lawsuit ultimately settled with a consent order pursuant to which Webb was reinstated to his former teaching position and awarded \$15,400 in damages.¹⁸⁶ Webb subsequently filed a motion for attorney's fees pursuant to 42 U.S.C. § 1988, seeking to recover, *inter alia*, fees incurred during the administrative proceedings.¹⁸⁷ The district court rejected Webb's request for such fees, the Court of Appeals affirmed, and the Supreme Court granted certiorari.¹⁸⁸

This time, the Court refused to allow the plaintiff to recover fees for time spent in administrative proceedings. As in *Carey*, the Court started with the relevant statutory language and found that § 1988, like § 706(k) of the Civil Rights Act, authorizes an award of attorney's fees in '*any action or proceeding* to enforce a provision' of this title.¹⁸⁹ The Court nonetheless distinguished *Carey* on the grounds that the administrative proceedings in that case were mandatory. Webb, on the other

¹⁷⁹ 42 U.S.C. § 2000(e)-5(k) (emphasis added).

¹⁸⁰ *Carey*, 447 U.S. at 61.

¹⁸¹ *Id.* at 63.

¹⁸² *Id.* at 63.

¹⁸³ *Id.*

¹⁸⁴ 471 U.S. 234 (1985).

¹⁸⁵ *Id.* at 236-37.

¹⁸⁶ *Id.* at 237.

¹⁸⁷ *Id.* at 238.

¹⁸⁸ *Id.*

¹⁸⁹ 42 U.S.C. § 1988 (2000) (emphasis added).

hand, was not required to exhaust administrative remedies before suing under § 1983; the administrative proceedings Webb pursued were optional.¹⁹⁰ The Court then explained that work completed during optional administrative proceedings might be compensable if it was 'both useful and of a type ordinarily necessary to advance' the litigation.¹⁹¹ Because Webb failed to make such a showing, the district court properly denied fees.¹⁹²

North Carolina Department of Transportation v. Crest Street Community Council, Inc. is the third case in the civil rights trilogy.¹⁹³ In *Crest*, the plaintiff filed an administrative complaint with the U.S. Department of Transportation challenging a plan to build a federally-funded highway through a predominantly black neighborhood as violative of Title VI of the civil rights laws.¹⁹⁴ The parties settled the administrative dispute, and plaintiff subsequently filed an action in federal court exclusively to recover attorney's fees under 42 U.S.C. § 1988. The Supreme Court granted certiorari because the courts of appeal were split on the question whether such an independent action for fees is sustainable.¹⁹⁵

In a decision that has drawn significant criticism,¹⁹⁶ the Court held that plaintiffs could not file a separate lawsuit under § 1988 to recover fees incurred during administrative proceedings. The Court read literally the language of § 1988, which allows for the recovery of fees for 'any action or proceeding *to enforce a provision of* 1981, 1981a, 1982, 1983, 1985, and 1986 of this title.'¹⁹⁷ Because a separate action for fees did not seek to enforce any of these laws, § 1988 was not satisfied. The Court defended this conclusion saying that it is 'entirely reasonable to limit the award of attorney's fees to those parties who, in order to obtain relief, found it necessary to file a complaint in court.'¹⁹⁸ Moreover, the Court reasoned, this rule should incentivize potential civil rights defendants to resolve disputes quickly instead of risking a lawsuit and liability for attorney's fees.¹⁹⁹

¹⁹⁰ *Webb*, 471 U.S. 234 at 241; see also Marjorie A. Silver, *Evening the Odds: The Case for Attorneys' Fee Awards for Administrative Resolution of Title VI and Title VII Disputes*, 67 N.C. L. REV. 379, 391-92 (1989) ("It is evident that the *Webb* majority saw a clear distinction between the mandatory nature of the state proceedings under Title VII in *Carey* and the optional state proceedings pursued by plaintiff in *Webb*.").

¹⁹¹ *Webb*, 471 U.S. at 243.

¹⁹² *Id.* at 244.

¹⁹³ 479 U.S. 6 (1986).

¹⁹⁴ *Id.* at 9.

¹⁹⁵ *Id.* at 11.

¹⁹⁶ See, e.g., Julie Davies, *Federal Civil Rights Practice in the 1990's: The Dichotomy Between Reality and Theory*, 48 HASTINGS L.J. 197, 210 (1997) (noting that recent Supreme Court decisions are 'at odds with Congress' intent to encourage attorneys to take civil rights cases"); David Luban, *Settlements and the Erosion of the Public Realm*, 83 GEO. L.J. 2619, 2631 n. 51 (1995) ("[T]he Supreme Court has made it increasingly difficult for civil rights attorneys to recover attorneys' fees."); Silver, *supra* note 190, at 415-19.

¹⁹⁷ *Crest*, 479 U.S. at 12 (emphasis added).

¹⁹⁸ *Id.* at 14.

¹⁹⁹ *North Carolina Dep't of Transp. v. Crest St. Cmty. Council, Inc.*, 479 U.S. 6, 15 (1986).

2. Fee Shifting in Environmental Cases

Around the same time the Supreme Court was deciding the civil rights trilogy, it confronted a similar issue in an environmental case, *Pennsylvania v. Delaware Valley Citizens' Council for Clean Air*.²⁰⁰ In *Delaware Valley*, a public interest group filed a suit in federal court to compel the Commonwealth of Pennsylvania to implement a vehicle emission inspection and maintenance program (I/M Program) as required by the Clean Air Act (CAA).²⁰¹ The parties entered into a consent decree pursuant to which Pennsylvania agreed to establish an I/M Program for several counties in the state.²⁰² However, implementation of the program did not proceed smoothly, and Delaware Valley pursued proceedings at the EPA to enforce the consent decree.²⁰³ As a result, the parties negotiated a new compliance schedule.

Delaware Valley then moved for attorney's fees to recoup the money it spent during the EPA proceedings.²⁰⁴ The district court granted the motion, and the Third Circuit affirmed relying on the 'useful and ordinarily necessary' standard of *Webb*.²⁰⁵ The Supreme Court granted certiorari, and affirmed the lower courts on this issue. In so doing, the Court began with the language of the relevant fee shifting statute, as it had in *Carey* and *Webb*.²⁰⁶ Unlike § 706(k) and § 1988, however, the fee shifting provision of the CAA, § 304(d), explicitly referred only to the 'action' not to 'proceedings.'²⁰⁷ But, the Court decided, the statutory language alone was not determinative of Congress's intent. Instead, the Court looked to the legislative history of the CAA and found that it used the terms 'action' and 'proceedings' interchangeably.²⁰⁸ More to the point, because § 304(d) had the same objective as §§ 706(k) and 1988—"to promote citizen enforcement of important federal policies"—their fee shifting provisions should carry the same meaning.²⁰⁹

After addressing the plain language and legislative history of § 304(d), the Court turned to the mandatory/optional nature of the administrative proceedings.²¹⁰ While the administrative proceedings in question were optional, the Court agreed

²⁰⁰ *Pennsylvania v. Delaware Valley Citizens' Council for Clean Air*, 478 U.S. 546 (1986), supplemented, 483 U.S. 711 (1987).

²⁰¹ *Id.* at 549.

²⁰² *Id.*

²⁰³ *Id.*

²⁰⁴ *Id.* at 553.

²⁰⁵ *Id.* at 556.

²⁰⁶ *Id.* 557-58.

²⁰⁷ 42 U.S.C. § 7604(d) ("The court, in issuing any final order *in any action brought pursuant to subsection (a) of this section*, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate." (emphasis added)).

²⁰⁸ *Delaware Valley*, 478 U.S. at 559.

²⁰⁹ *Id.* at 560.

²¹⁰ *Id.* at 561.

that the work before the EPA was ‘useful and necessary’ as contemplated by *Webb*. Put simply, ‘participation in these administrative proceedings was crucial to the vindication of Delaware Valley’s rights under the consent decree.’²¹¹ Accordingly, the district court did not abuse its discretion by awarding fees to the plaintiff in this case.

Piecing together the holdings of *Carey*, *Webb*, *Crest*, and *Delaware Valley*, a framework emerges for deciding whether a prevailing party may recover attorney’s fees incurred before an administrative agency.²¹² First, the plaintiff must file a lawsuit to enforce the underlying rights, not an independent action solely to recover attorney’s fees. Second, the court must determine if either the plain language of the fee shifting statute or its legislative history makes clear that Congress contemplated fees for ‘proceedings, not just lawsuits. Finally, the court must determine if the administrative proceedings at issue were mandatory or optional. Whereas a prevailing party is presumptively entitled to fees for mandatory proceedings, fees for optional proceedings are only recoverable if they were both ‘useful and ordinarily necessary’ to advance the litigation.²¹³

B. Lower Courts’ Interpretations of Supreme Court Jurisprudence

Fee shifting provisions are found in many different laws, and therefore lower courts have faced the question whether to include fees for work before an administrative tribunal in a number of contexts. Examples include the Handicapped Children’s Protection Act (HCPA),²¹⁴ the Employment Retirement Income Security Act (ERISA),²¹⁵ and the Age Discrimination in Employment Act (ADEA).²¹⁶ Courts have generally allowed the recovery of such fees in HCPA cases,²¹⁷ precluded recovery in ERISA cases,²¹⁸ and split on the issue in ADEA cases.²¹⁹ A lengthy discussion of all of these cases is beyond the scope of this Article, so it addresses only the ERISA cases—which were decided most recently—in greater detail.

²¹¹ *Id.*

²¹² See Michael J. Davidson, *Crest: Judicial Preclusion of an Independent Suit Solely for Attorneys’ Fees Under Title VII?*, 18 DEL. J. CORP. L. 425, 450-51 (1993).

²¹³ *Id.*

²¹⁴ See, e.g., *Moore v. District of Columbia*, 907 F.2d 165 (D.C. Cir. 1990) (en banc); *Duane M. v. Orleans Par. Sch. Bd.*, 861 F.2d 115, 118 (5th Cir. 1988); *Eggers v. Bullitt Cty. Sch. Dist.*, 854 F.2d 892, 894 (6th Cir. 1988).

²¹⁵ See, e.g., *Rego v. Westvaco Corp.*, 319 F.3d 140 (4th Cir. 2003); *Peterson v. Continental Cas. Co.*, 282 F.3d 112 (2d Cir. 2002); *Cann v. Carpenters’ Pension Trust Fund for N. Cal.*, 989 F.2d 313 (9th Cir. 1993).

²¹⁶ See, e.g., *Reichman v. Bonsignore, Brignati & Mazzotta P.C.*, 818 F.2d 278 (2d Cir. 1987); *Kennedy v. Whitehurst*, 690 F.2d 951 (D.C. Cir. 1982).

²¹⁷ See Davidson, *supra* note 212, at 444.

²¹⁸ See *infra* Part III.B (discussing ERISA cases in greater detail).

²¹⁹ See Silver, *supra* note 190, at 407-09.

Cann v. Carpenters' Pension Trust Fund for Northern California was the first circuit decision in the ERISA context to address the question whether a prevailing party could recover attorney's fees for administrative proceedings.²²⁰ Cann filed two federal lawsuits and pursued administrative remedies regarding his pension eligibility.²²¹ Upon settling the merits, Cann requested \$51,600 in attorney's fees, some of which were incurred during administrative proceedings.²²² Cann argued that he was entitled to recover such fees because the administrative proceedings were mandatory, i.e., exhaustion of administrative remedies was a prerequisite to filing suit.²²³ The district court nevertheless limited Cann's recovery to fees incurred during the federal court actions.

Following the framework set out by the Supreme Court, the Ninth Circuit began by examining the plain language of the ERISA fee shifting provision.²²⁴ It provided that "[i]n any action under this subchapter . . . by a participant, beneficiary, or fiduciary, the court in its discretion may allow a reasonable attorney's fee and costs of action to either party."²²⁵ Unlike § 706(k) and § 1988, the ERISA provision mentioned only 'actions' and not 'proceedings.'²²⁶ Therefore, the court concluded, the plain language of the statute limits awards to fees incurred in litigation in court.²²⁷

But the inquiry didn't end there. Guided by *Delaware Valley*, the court next considered the legislative history of ERISA.²²⁸ Congress's intention was to promote 'the soundness and stability of [pension] plans with respect to adequate funds to pay promised benefits.'²²⁹ The court believed that this objective would not be furthered, and might even be undermined, by allowing the recovery of fees for administrative proceedings.²³⁰ Nor, the court reasoned, was there anything else in the legislative history that 'supported a nonliteral interpretation of [the term] 'action'' in the ERISA fee shifting provision.²³¹ For these reasons, the Ninth Circuit affirmed the district court's denial of attorney's fees.

²²⁰ *Cann v. Carpenters' Pension Trust Fund*, 989 F.2d 313 (9th Cir. 1993).

²²¹ *Id.* at 314.

²²² *Id.* at 314-15.

²²³ *Id.* at 315

²²⁴ *Id.*

²²⁵ 29 U.S.C. § 1132(g)(1) (emphasis added).

²²⁶ *Cann*, 989 F.2d at 316.

²²⁷ *Id.*

²²⁸ *Id.* at 316-17.

²²⁹ 29 U.S.C. § 1001(a).

²³⁰ *Cann*, 989 F.2d at 316 ("This purpose might be undermined by awards which, by encouraging plans to pay questionable claims in order to avoid liability for attorneys' fees, could reduce their 'soundness and stability.'").

²³¹ *Id.* at 317. The Ninth Circuit also distinguished *Delaware Valley* on the ground that the administrative proceedings in that case occurred after the civil action and were necessary to enforce an already-litigated consent decree, whereas in *Cann* the administrative proceedings preceded the lawsuit. *Id.*

Over the next decade, several other circuit courts faced the same question about fee shifting in ERISA cases. Starting with *Anderson v. Proctor & Gamble Co.*,²³² the Sixth Circuit found the reasoning in *Cann* persuasive and held that 'ERISA does not authorize recovery of attorney's fees for work performed during the administrative exhaustion phase of a benefits proceedings.'²³³ Likewise, in *Peterson v. Continental Casualty Co.*, the Second Circuit limited recovery to attorney's fees incurred in court based on the text of the ERISA fee-shifting provision.²³⁴ In reaching this conclusion, the *Peterson* court relied on dictionary definitions of 'action, the use of the term 'action' in other provisions of the ERISA statute, and the decisions in *Cann* and *Anderson*.²³⁵

In *Rego v. Westvaco Corporation*,²³⁶ the Fourth Circuit reached the same conclusion about fee shifting in ERISA cases. While the *Rego* court agreed with the rationale of its sister circuits, it offered an additional reason for not allowing the recovery of fees for administrative proceedings.²³⁷ Making such fees recoverable, the court suggested, would encourage parties to retain lawyers to represent them during administrative proceedings.²³⁸ And if lawyers were injected into this process, 'it would establish a far higher degree of formality and lead to more protracted litigation in a great many cases.'²³⁹

The Eighth Circuit most recently joined this line of cases in *Parke v. First Reliance Standard Life Insurance Co.*²⁴⁰ The *Parke* court found it significant that the ERISA fee shifting provision referred only to 'actions, not 'proceedings.'²⁴¹ The court also spent a good deal of time distinguishing *Delaware Valley*.²⁴² Not only did the environmental legislation at issue in *Delaware Valley* have a different congressional design, the procedural posture of the case was different. As noted by the Ninth Circuit in *Cann*,²⁴³ the administrative proceedings in *Delaware Valley* occurred after the civil action and were necessary to enforce the already-litigated consent decree, whereas the administrative proceedings in the ERISA context pre-dated the plaintiff's lawsuit.²⁴⁴

²³² *Anderson v. Proctor & Gamble Co.* 220 F.3d 449 (6th Cir. 2000).

²³³ *Id.* at 456.

²³⁴ *Peterson v. Cont'l Cas. Co.* 282 F.3d 112, 214 (2d Cir. 2002).

²³⁵ *Id.* at 119-20.

²³⁶ *Rego v. Westvaco Corp.* 319 F.3d 140 (4th Cir. 2003).

²³⁷ *Id.* at 150.

²³⁸ *Id.*

²³⁹ *Id.*

²⁴⁰ *Bernhardt, L.L.C. v. Collezione Europa USA, Inc.* 386 F.3d 1371 (Fed. Cir. 2004), *abrogated by* *Egyptian Goddess, Inc. v. Swisa, Inc.* 543 F.3d 665 (Fed. Cir. 2008).

²⁴¹ *Id.* at 1010.

²⁴² *Id.* at 1011.

²⁴³ *See supra* note 224.

²⁴⁴ *Id.*

In all of these ERISA cases, as well as in the HCPA and ADEA cases mentioned above,²⁴⁵ lower courts begin with the plain language of the statute and the Supreme Court's decision in *Carey* to decide whether fees for administrative proceedings are recoverable. As discussed in the next Section, however, when the Federal Circuit confronted this question regarding fees for PTO proceedings, it skipped the first part of the analysis and focused only on the inquiry from *Webb*—whether the administrative proceedings were mandatory or optional.²⁴⁶ Because the Federal Circuit's analysis was flawed, the question whether courts may award fees for PTO proceedings remains open.

C. Fee Shifting for PTO Proceedings

The AIA vastly expanded the ability to challenge patent validity through administrative proceedings at the PTO. But even before the AIA, various administrative proceedings were available to patent owners and other interested parties—including reissue, ex parte reexamination, and inter partes reexamination—all of which were used at times in conjunction with litigation.²⁴⁷ During this pre-AIA era, in a case called *PPG Indus. Inc. v. Celanese Polymer Specialties Co. Inc.*, the Federal Circuit addressed the question about shifting fees for work before the PTO.

1. *PPG v. Celanese*

PPG Industries, the owner of patents related to electrodeposition of coating compositions, sued Celanese for infringement.²⁴⁸ Celanese uncovered relevant prior art during discovery, and so PPG sought reissue of the patents-in-suit.²⁴⁹ The district court stayed the federal court action pending the PTO's resolution of the reissue proceedings, and Celanese actively participated in the reissue proceedings as a protestor and intervenor.²⁵⁰ The PTO refused to reissue PPG's patents because the claims were obvious in light of the prior art, and because PPG engaged in inequitable conduct by intentionally withholding this prior art during the initial examination.²⁵¹ The district court then lifted the stay, entered judgment for Celanese, and Celanese moved for attorney's fees under 35 U.S.C. § 285. Although the district court determined the case was "exceptional" and granted the motion, it did not award the full amount Celanese requested, including approximately \$275,000 for

²⁴⁵ See *supra* notes 207, 209.

²⁴⁶ See *infra* Part III.C.

²⁴⁷ See, e.g. La Belle, *supra* note 1, at 56-58 (setting forth the history of ex parte and inter partes reexamination); Willis B. Rice & William L. Grossman, *Reissued Patents and Intervening Rights*, 43 YALE L.J. 766, 770 (1934) (exploring the history of reissue proceedings).

²⁴⁸ *PPG Indus. Inc. v. Celanese Polymer Specialties Co.* 840 F.2d 1565, 1566 (Fed. Cir. 1988).

²⁴⁹ *Id.*

²⁵⁰ *Id.* at 1567. At the time PPG was decided, third parties could participate in reissue proceedings pursuant to the "Dann Amendments." *Id.* at 1568. After Congress enacted legislation providing for reexamination, it repealed the Dann Amendments. *Id.*

²⁵¹ *Id.* at 1566.

‘legal services rendered before the PTO in opposing PPG’s reissue applications.’²⁵² Celanese appealed, and the Federal Circuit reversed.

What’s most remarkable about the Federal Circuit’s decision in *PPG* is what’s missing from it, namely any reference to the text of § 285 or the Supreme Court’s decision in *Carey*.²⁵³ Instead of starting with the plain language of the relevant fee shifting provision—as *Carey* instructs and as all other circuit courts deciding this question have done—the Federal Circuit only discussed *Webb* and the designation of the reissue proceedings as mandatory or optional.²⁵⁴ The court held that, at least in this case, the reissue proceedings were mandatory because Celanese had to participate in them once PPG requested reissue.²⁵⁵ And even if considered optional, the court explained, the reissue proceedings were ‘useful and of a type ordinarily necessary’ as contemplated in *Webb*.²⁵⁶ Celanese, therefore, was entitled to recover the attorney’s fees incurred during reissue proceedings before the PTO.

2. Lower Courts’ Applications of *PPG*

Since the Federal Circuit decided *PPG* almost three decades ago, this fee shifting issue has garnered little attention. From time-to-time, district courts have had to decide whether to award fees for work before the PTO.²⁵⁷ In most of these reported opinions, the courts have allowed such fees with little explanation.²⁵⁸ The courts may have been relying on *PPG*, but that is not always clear.

With the passage of the AIA, the popularity of the new post-grant proceedings, and the rise in fee shifting motions after *Octane* and *Highmark*, courts are likely to face this issue on a much more regular basis.²⁵⁹ Indeed, a recent district court deci-

²⁵² *Id.* at 1568.

²⁵³ Interestingly, the district courts that addressed this question before the Federal Circuit’s *PPG* decision also failed to consider *Carey* and the plain language of § 285. See *Scott Paper Co. v. Moore Bus. Forms, Inc.* 604 F.Supp. 835 (D. Del. 1984); *PPG Indus. Inc. v. Celanese Polymer Specialties Co., Inc.* 658 F. Supp. 555 (W.D. Ky. 1987).

²⁵⁴ *PPG Indus. Inc. v. Celanese Polymer Specialties Co.* 840 F.2d 1565, 1568-69 (Fed. Cir. 1988).

²⁵⁵ *Id.* at 1568.

²⁵⁶ *Id.* at 1568-69.

²⁵⁷ See *Deep Sky Software, Inc. v. Southwest Airlines Co.* Case No. 10-cv-1234-CAB (KSC), at 3-5 (S.D. Cal. Aug. 19, 2015); *Intellect Wireless, Inc. v. HTC Corp.* 2015 WL 136142, at *9 (N.D. Ill. Jan. 8, 2015); *IA Labs CA, LLC v. Nintendo Co. Ltd.* 2012 WL 1565296, at *4 (D. Md. May 1, 2012); *Howes v. Medical Components, Inc.* 761 F. Supp. 1193, 1199 (E.D. Pa. 1990).

²⁵⁸ See *Deep Sky*, Case No. 10-cv-1234, at 4 (“[U]nder the unique circumstances of this case, defendant may recover fees for the reexamination proceedings.”); *IA Labs*, 2012 WL 1565296, at *4 (“[T]he Court accepts Nintendo’s calculation of the number of hours reasonably expended on the matter as a result of IA Labs’ baseless claim—including those related to the reexamination proceeding before the PTO.”); *Howes*, 761 F. Supp. at 1198 (concluding that fees for reexamination proceedings were recoverable because they were “reasonably necessary to this litigation”). But see *Intellect Wireless*, 2015 WL 136142, at *9 (“To the extent the present fee petition contains time for work before the USPTO, such time should not be included in the fee award.”).

²⁵⁹ See *infra* Part IV. A related issue that at least one district court has already faced is whether prevailing parties in patent cases can be awarded the *costs* (as opposed to attorney’s fees) associated

sion on the matter—*Deep Sky Software, Inc. v. Southwest Airlines Co.*—received a good bit of attention from various commentators and was picked up by several blogs.²⁶⁰ In *Deep Sky*, the plaintiff filed a patent infringement action in 2010, and soon thereafter the defendant filed a request for inter partes reexamination.²⁶¹ The parties filed a joint motion to stay the case pending the outcome of the reexamination, which the court granted.²⁶²

After the PTO cancelled all the claims of the patent, the district court lifted the stay and Southwest moved for attorney's fees under § 285, including fees for the reexamination.²⁶³ The district court, which had previously determined the case was exceptional, granted the motion. In so doing, the court did not examine the text of § 285, consider its legislative history, or discuss any of the Supreme Court cases on point. Instead, relying on *PPG*, the court held that 'the reexamination proceedings essentially substituted for work that would otherwise have been done before this court, and therefore Southwest was entitled to those fees.'²⁶⁴

Although *Deep Sky* involved pre-AIA administrative proceedings (*i.e.*, inter partes reexamination), no doubt district courts will approach the fee shifting question similarly with respect to IPR, PGR, and CBM. Stated simply, courts will follow *PPG* and allow prevailing parties to recover fees incurred during PTO proceedings. Perhaps from a policy perspective the Federal Circuit got it right in *PPG*, but

with PTAB proceedings. See *Credit Acceptance Corp. v. Westlake Servs. LLC*, CV 13-01523 SJO (MRWx), at 5-6 (C.D. Cal. Jan. 5, 2016). In *Credit Acceptance*, the patent owner sued for infringement, and the defendant successfully challenged the patent in CBM before the PTAB. The defendant then sought to recover costs associated with the CBM, namely \$73,200 in filing fees. *Id.* at 5. Despite being the "prevailing party," the district court held that defendant could not recover the CBM-related filing fees pursuant to the Central District of California's Local Rules, which only allowed fees paid to the "Clerk" to be recoverable. *Id.* at 6. Since the \$73,200 in fees was paid to the PTO, and not the court clerk, they were not taxable costs. *Id.*

²⁶⁰ See, e.g. Gregory S. Cordrey, *District Court Awards Defendant Its IPR-Related Fees Under § 285*, PATENT LAWYER BLOG, <http://patentlaw.jmbm.com/2015/09/district-court-awards-defendan.html> (Sept. 1, 2015); Kevin Penton, *Southwest Wins Attorney Fees for Patent Re-examination Period*, LAW 360, <http://www.law360.com/articles/693876/southwest-wins-atty-fees-for-patent-re-examination-period> (Aug. 21, 2015); Hans Smith, *Attorney Fees for Post-Grant Patent Challenge Proceedings Before the USPTO May Be Recoverable in Exceptional Cases Under 35 U.S.C. § 285*, IP INTELLIGENCE, <http://www.ipintelligencereport.com/2015/08/26/attorney-fees-for-post-grant-patent-challenge-proceedings-before-the-uspto-may-be-recoverable-in-exceptional-cases-under-35-u-s-c-%C2%A7-285/> (Aug. 26, 2015).

²⁶¹ *Deep Sky*, Case No. 10-cv-1234, at 1.

²⁶² *Id.*

²⁶³ *Id.* at 2.

²⁶⁴ *Id.* at 4. The district court did cite one other Federal Circuit case, *Cent. Soya Co. v. Geo. A. Hormel & Co.* 723 F.2d 1573, 1578 (Fed. Cir. 1983), for the proposition that attorney's fees may include "those sums that the prevailing party incurs in the preparation for and performance of legal services related to the suit." But *Soya* is not on point. In *Soya*, the question was whether courts may award expenses—such as fees for paralegals, expert witness fees, photocopying charges, travel expenses, etc.—or whether § 285 is limited to attorney's fees. *Id.* at 1577-78. *Soya* did not address the question whether attorney's fees for administrative proceedings are recoverable under § 285.

its legal analysis was unsound. The final Part of this Article therefore makes two suggestions for addressing this problem going forward. First, it calls on either an *en banc* Federal Circuit or the Supreme Court to revisit *PPG*, and second it urges Congress to address this matter.

IV. The Future of Fee Shifting for PTAB Proceedings

A. The Judiciary Should Revisit *PPG*

When the Federal Circuit decided *PPG* almost thirty years ago, the language of § 285 was the same as it is today: ‘The court in exceptional cases may award reasonable attorney fees to the prevailing party.’²⁶⁵ This language should have been the Federal Circuit’s starting point, as the Supreme Court explicated in *Carey* and its progeny.²⁶⁶ Of course, the ‘rule’ announced in *Carey* is not unique to the circumstances of that case. It is a basic principle of statutory construction that courts begin with the language of the statute.²⁶⁷ The Federal Circuit itself has acknowledged this maxim time and again.²⁶⁸

Yet, for unexplained reasons, the *PPG* court skipped this critical first step when interpreting § 285. Maybe a court would choose not to address the statutory language if it were sufficiently clear. But if the statute’s language was clear, then why would the parties be litigating about it in the first place? In the end, whether such a hypothetical situation might arise in some other case is neither here nor there because the language of § 285 is *not* clear—it does *not* unambiguously allow prevailing parties to recover fees for administrative proceedings.

To the contrary, unlike sections 706(k) and 1988 of the Civil Rights Act, § 285 makes no mention of ‘proceedings.’²⁶⁹ Rather, the statute says only that courts may award fees in ‘cases.’ The term ‘case’ is synonymous with ‘action,’²⁷⁰ and courts have interpreted ‘action’ to mean a proceeding in court, not an administrative pro-

²⁶⁵ 35 U.S.C. § 285.

²⁶⁶ See *supra* Part III.A.

²⁶⁷ See, e.g. *Barnhart v. Thomas*, 540 U.S. 20, 26 (2003); *Duncan v. Walker*, 533 U.S. 167, 172 (2001); *Consumer Prod. Safety Comm’n v. GTE Sylvania, Inc.* 447 U.S. 102, 108 (1980); see also Debra Lyn Bassett, *Statutory Interpretation in the Context of Federal Jurisdiction*, 76 GEO. WASH. L. REV. 52, 69 (2007).

²⁶⁸ See, e.g. *Federal Nat. Mortgage Ass’n v. United States*, 379 F.3d 1303, 1307 (Fed. Cir. 2004) (“[S]tatutory interpretation begins with the language of the statute.”); *Associated Elec. Co-op. Inc. v. United States*, 226 F.3d 1322, 1326 (Fed. Cir. 2000) (“To determine Congressional intent, we begin, of course, with the language of the statutes at issue.”); *Demko v. United States*, 216 F.3d 1049, 1052 (Fed. Cir. 2000) (“Statutory interpretation begins with the language of the statute itself.”).

²⁶⁹ 42 U.S.C. §§ 1988, 2000(e)-5(k).

²⁷⁰ CASE, BLACK’S LAW DICTIONARY (10TH ED. 2014) (defining ‘case’ as ‘[a] civil or criminal proceeding, *action*, cause, suit, or controversy, at law or in equity’) (emphasis added).

ceeding.²⁷¹ A ‘case,’ moreover, is defined as ‘a question contested before a *court* of justice’ or ‘an aggregate of facts which furnishes occasion for the exercise of the jurisdiction of a *court* of justice.’²⁷² In short, the statutory language of § 285 does not support the Federal Circuit’s conclusion in *PPG* that fees may be awarded for PTO proceedings.

But even where, as here, the statute is silent, courts may still award fees for administrative proceedings if that’s what Congress intended.²⁷³ The purpose of § 285 is ‘to compensate the prevailing party for its monetary outlays in the prosecution or defense of the suit.’²⁷⁴ To be sure, allowing prevailing parties in patent litigation to recover fees for PTO proceedings would be ‘compensatory.’ However, it’s impossible to say—as the Supreme Court did in *Delaware Valley*—that Congress *intended* for these fees to be recoverable because, at the time § 285 was enacted, these PTO proceedings did not even exist.²⁷⁵

Because neither the plain language of § 285 nor its legislative history support the recovery of fees for work before the PTO, the Federal Circuit’s legal analysis in *PPG* was wrong. Under the Supreme Court’s framework, the Federal Circuit never should have reached the question whether PTO proceedings are mandatory or optional because there was no explicit or implicit statutory authority for awarding fees for administrative proceedings.²⁷⁶ Thus, the Supreme Court or an *en banc* panel of the Federal Circuit should revisit and reverse *PPG*.

For all its flaws, however, the *PPG* decision is sound as a matter of policy, especially in light of the objectives of the AIA. One purpose of the AIA was to address the country’s bad patent problem, which Congress believed was hampering innovation and technological advancement.²⁷⁷ To that end, Congress created PTAB

²⁷¹ See, e.g., *Peterson v. Cont’l Cas. Co.* 282 F.3d 112, 119 (2d Cir. 2002) (“Used in a statute, the term ‘action’ traditionally connotes a formal adversarial proceeding under the jurisdiction of a court of law.”); *Cann v. Carpenters’ Pension Trust Fund*, 989 F.2d 316, 316 (9th Cir. 1993) (“action’ generally refers to “proceedings in court, not administrative proceedings even though necessary and valuable”).

²⁷² BLACK’S, *supra* note 270 (emphasis added).

²⁷³ See *Pennsylvania v. Delaware Valley Citizens’ Council for Clean Air*, 478 U.S. 546, 559, (1986).

²⁷⁴ *Cent. Soya Co. v. Geo. A. Hormel & Co.* 723 F.2d 1578 (Fed. Cir. 1983); see also *Codex Corp. v. Milgo Electronic Corp.* 541 F.Supp. 1198, 1201 (D. Mass.1982) (“The compensatory purpose of § 285 is best served if the prevailing party is allowed to recover his reasonable expenses in prosecuting the entire action.”).

²⁷⁵ Instead, the legislative history indicates that Congress believed fee shifting in patent cases would “enable the court to prevent a gross injustice to an alleged infringer” and deter willful infringement “by anyone thinking that all he would be required to pay if he loses the suit would be a royalty.” S. Rep. No. 1503 (1946), in 1946 U.S.C.C.S. 1386, 1387.

²⁷⁶ See *supra* Part III.A (setting out the Supreme Court’s framework for analyzing fee shifting for administrative proceedings).

²⁷⁷ See, e.g. 157 Cong. Rec. S5409-10 (daily ed. Sept. 8, 2011) (statement of Sen. Schumer) (“[T]he bill streamlines review of patents to ensure that the poor-quality patents can be weeded out through administrative review rather than costly litigation.”); 157 Cong. Rec. S5433 (daily ed. Sept. 8,

proceedings as a quicker and less expensive alternative to district court litigation.²⁷⁸ Congress's goal, in other words, was to encourage the use of PTAB proceedings to invalidate bad patents.

While various means could be used to encourage PTAB challenges, fee shifting is an important one. Simply put, when there's a possibility of recovering attorney's fees, parties are more likely to seek PTAB review in the first place, and more likely to pursue such challenges to a final decision.²⁷⁹ On the other hand, if there's no possibility of fee shifting, parties may choose a different path. They may challenge a patent only in federal court (i.e., not at the PTAB), settle the case (thereby allowing an invalid patent to remain in force), or not challenge the patent at all.²⁸⁰

In short, the policy underlying *PPG* makes good sense because allowing prevailing parties to recoup attorney's fees for PTAB proceedings furthers the aims of the AIA. But even assuming the Federal Circuit wanted to award fees for work at the PTAB, its hands are tied by the plain language of § 285, the statute's legislative history, and Supreme Court precedent. Accordingly, it is up to Congress to provide a legislative fix.

B. Congress Should Allow for Recovery of PTAB Fees

Since 2013, several bills have been introduced in Congress proposing broader fee shifting for patent cases.²⁸¹ Many provisions in these bills have been the subject of significant debate, including whether fee shifting should be mandatory or discretionary, how to recover fees from the 'real party in interest, whether to adopt a one-way or two-way fee shifting scheme, the standard for fee shifting, and whether certain entities (e.g., universities) should be exempted from the fee shifting provisions.²⁸² Yet, none of these bills tackles the question whether prevailing parties should be able to recover fees incurred during PTAB proceedings.

If Congress ultimately adopts one of these fee shifting bills, it should permit courts to award fees for IPR, PGR, and CBM (e.g., by including the word 'proceedings' in the statute). Congress should also provide district courts some guidance on when such fees are appropriately granted. For example, district courts might be more likely to award fees for PTAB proceedings if they simplified the litigation or

2011) (statement of Sen. Grassley) (arguing that post-grant administrative review will "protect inventor's rights, 'strengthen patent quality,'" "reduce costs, 'curb litigation abuses' and "improve certainty for investors and innovators").

²⁷⁸ See Matal, *supra* note 158, at 653.

²⁷⁹ See *supra* Part I (discussing how different fee shifting regimes influence litigation conduct).

²⁸⁰ See *id.*

²⁸¹ See *supra* Part II.D (introducing various fee shifting proposals).

²⁸² See Patent Progress, *Patent Progress's Guide to Federal Patent Reform Legislation*, available at <http://www.patentprogress.org/patent-progress-legislation-guides/patent-progresss-guide-patent-reform-legislation/> (collecting and summarizing patent reform bills that have been introduced since 2013).

substituted for work that otherwise would have been done before the court.²⁸³ On the other hand, if PTAB proceedings were duplicative or brought for harassment purposes, recovery should not be allowed.²⁸⁴ While such decisions should be left to the discretion of the court, laying out factors in the statute for the court to consider would be helpful. To be completely upfront, I am not advocating for the passage of any of these fee shifting bills. But if Congress decides to revamp § 285, it should take that opportunity to clarify this issue about recouping administrative fees.

Even in the event Congress does not pass comprehensive fee shifting legislation, it should still address this issue. Patent litigants who employ PTAB proceedings in a way that advances the AIA's objectives ought to recover their attorney's fees.²⁸⁵ To allow for that, Congress would need to amend § 285—at the very least—to refer to 'proceedings' in the text of the statute. Ideally, as noted above, Congress would also provide some guidance to help courts discern when fees for administrative work are warranted and when they are not.

One last suggestion is that Congress consider granting the PTAB power to award attorney's fees to prevailing parties, as it has done for a number of other agencies.²⁸⁶ That way, parties who litigate only at the PTAB (and not also in federal court) can recover fees. This is important because, while most IPRs and CBMs in-

²⁸³ See, e.g., *Delaware Valley*, 478 U.S. at 562 ("We agree that participation in these proceedings was crucial to the vindication of Delaware Valley's rights under the consent decree and find that compensation for these activities was entirely proper and well within the 'zone of discretion' afforded to the District Court."); *Deep Sky Software, Inc. v. Southwest Airlines Co.* Case No. 10-cv-1234-CAB (KSC), at 4 (S.D. Cal. Aug. 19, 2015).

²⁸⁴ See, e.g. Gregory Dolin, *Dubious Patent Reform*, 56 B.C. L. REV. 881, 932-33 (2015) (discussing how parties have abused PTAB proceedings); Vishnubhakat, et al. *supra* note 161, at 55 (explaining that some PTAB petitions may be used for harassment and delay).

²⁸⁵ See *Carey*, 447 U.S. at 66 ("It would be anomalous to award fees to the complainant who is unsuccessful or only partially successful in obtaining state or local remedies, but to deny an award to the complainant who is successful in fulfilling Congress' plan that federal policies be vindicated at the state or local level.")

²⁸⁶ See, e.g. Fair Housing Act, 42 U.S.C. § 3612(p) ("In any administrative proceeding brought under this section, or any court proceeding arising therefrom, or any civil action under this section, the administrative law judge or the court, as the case may be, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee and costs.") (emphasis added); Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 815(c)(3) ("Whenever an order is issued sustaining the complainant's charges under this subsection, a sum equal to the aggregate amount of all costs and expenses (including attorney's fees) as determined by the Commission to have been reasonably incurred by the miner, applicant for employment or representative of miners for, or in connection with, the institution and prosecution of such proceedings shall be assessed against the person committing such violation.") (emphasis added); Longshore and Harbor Workers' Compensation Act, 33 U.S.C. §§ 928(a)-(b) ("If the person seeking benefits shall thereafter have utilized the services of an attorney at law in successful prosecution of his claim, there shall be awarded a reasonable attorney's fee against the employer or carrier in an amount approved by the deputy commissioner, Board, or court, as the case may be.") (emphasis added); Shipping Act of 1984, 46 U.S.C. § 41305(e) (authorizing the Federal Maritime Commission to award reasonable attorney fees to the prevailing party in any action brought under the act).

volve a parallel federal court suit,²⁸⁷ some do not. Moreover, with respect to PGRs, there's less likely to be parallel litigation since they must be initiated within nine months of the patent's issuance.²⁸⁸ Allowing the PTAB to award fees would further the AIA's objective of encouraging parties to use PTAB proceedings as a substitute for, rather than in addition to, federal court litigation.²⁸⁹ Plus, having the agency decide fee motions avoids the difficulty courts face when assessing a fee request for work conducted before a different tribunal.²⁹⁰

Conclusion

The PTAB is transforming the way patent litigation is conducted in the United States. Where patents were once litigated solely in federal court, today the PTAB plays a key role in resolving patent disputes. While PTAB proceedings are far less expensive than federal court litigation,²⁹¹ parties still incur significant attorney's fees adjudicating before the PTO. These administrative fees should be recoverable by prevailing patent litigants, but Supreme Court jurisprudence makes clear that § 285's plain language and legislative history preclude such an award. Therefore, in furtherance of the AIA's objective of encouraging PTAB proceedings as a substitute for federal court litigation, Congress should enact legislation entitling parties who prevail at the PTAB to recover attorney's fees.

²⁸⁷ See *Love & Ambwani*, *supra* note 152, at 103.

²⁸⁸ *Vishnubhakat*, *supra* note 117.

²⁸⁹ *In re Cuozzo Speed Techs. LLC*, 793 F.3d 1268, 1284-85 (Fed. Cir. 2015) (Newman, J. dissenting) (arguing that the PTAB was meant to serve as a 'surrogate for district court litigation'); *Vishnubhakat, et al.* *supra* note 161, at 70 (noting the 'intended uses of IPR and CBM review as substitutes for federal court litigation').

²⁹⁰ See, e.g., *PPG Indus. v. Celanese Polymer Specialties, Co.* 658 F. Supp. 555, 561 (W.D. Ky. 1987) ("[I]t would be very difficult or almost impossible for the court to award those fees accurately regarding the conduct of a separate action before a different kind of tribunal."). Notably, the PTAB did award attorney's fees recently, albeit in a different context. In *RPX Corp. v. Applications in Internet Time LLC*, the PTAB ordered the patent owner to pay \$13,500 in attorney's fees as a sanction for violating a protective order. See IPR 2015-011750, 01751 & 01752. In so doing, the PTAB relied on C.F.R. § 42.12, which allows the Board to impose sanctions against a party for 'misconduct.

²⁹¹ *Vishnubhakat, et al.* *supra* note 161, at 59 ("Thus far, the new AIA proceedings do appear to be substantially cheaper than district court litigation.").

A Nonobvious Comparison: Nonobviousness Decisions at the PTAB and in the Federal Courts

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I. Introduction¹

The most fundamental requirement for obtaining a patent is that the invention would not have been obvious to a person of ordinary skill in the art at the time the patent application was filed.² Patent protection is not available for merely new and useful inventions; inventions must also provide a non-trivial advance over existing technology in order to merit a patent. Proper application of the nonobviousness requirement is often viewed as necessary to comport with the constitutional requirement that patents ‘promote the Progress.’³

Though the nonobviousness standard can be recited straight-forwardly, in practice it is notoriously difficult to apply. The standard itself is highly indeterminate: the term ‘nonobvious’ has never been defined by Congress or the courts. Further, the nonobviousness requirement mandates that the decision-maker put themselves in the mind of another individual (the person of ordinary skill in the art) in order to make a judgment. Research in psychology teaches that humans are not cognitively capable of carrying out this objective. Finally, nonobviousness decisions require a hindsight judgment, another task at which people demonstrate marked biases.

Despite these challenges, decision-makers must judge nonobviousness for hundreds of thousands of patent applications a year, both at the United States Patent and Trademark Office (“PTO”) and in the federal courts. Some of these decision-makers possess expertise in the particular technology at issue (PTO examiners and sometimes Patent Trial and Appeal Board (“PTAB”) administrative judges), some possess general scientific or technological expertise (PTAB judges deciding cases outside their area of expertise and some federal judges), and some lack any technological training (many federal judges). These differing levels of expertise can have different effects on the challenges of making nonobviousness determinations. Conversely, some of these decision-makers have been extensively trained in the law (federal judges, some PTAB judges, and some PTO examiners) and others have not (other PTAB judges and PTO examiners).

¹ Portions of the Introduction and Part I of this article are drawn from earlier articles I have written on nonobviousness. See Gregory N. Mandel, *The Non-Obvious Problem: How the Indeterminate Non-Obvious Standard Produces Excessive Patent Grants*, 42 U.C. DAVIS L. REV. 57 (2008); Gregory N. Mandel, *Another Missed Opportunity: The Supreme Court’s Failure to Define Non-Obvious or Combat Hindsight Bias in KSR v. Teleflex*, 12 LEWIS & CLARK L. REV. 323 (2008); Gregory N. Mandel, *Patently Non-Obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational*, 67 OHIO ST. L.J. 1391 (2006).

² 35 U.S.C. § 103 (2012); Mandel, *Patently Non-Obvious*, *supra* note 1, at 1393; NONOBVIOUSNESS—THE ULTIMATE CONDITION OF PATENTABILITY (J. Witherspoon ed. 1980); Hon. Giles S. Rich, *Laying the Ghost of the ‘Invention’ Requirement*, 1 AIPLA Q. J. 26 (1972).

³ U.S. CONST. art. I, § 8; *KSR Int’l Co. v. Teleflex Inc.* 550 U.S. 398, 427 (2007) (“as progress beginning from higher levels of achievement is expected in the normal course, the results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts.”); *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 6 (1966); Rich, *supra* note 2, at 26.

In an effort to elucidate how the challenges of nonobviousness decisions affect different decision-makers, this article presents an original dataset of nonobviousness decisions throughout the patent decision process. This dataset includes nonobviousness decisions at the PTO and in the federal courts for the time period subsequent to the effective date of the Leahy-Smith America Invents Act's (AIA)⁴ first-to-file provisions.

The results provide strong evidence that nonobviousness decisions are highly indeterminate: similarly situated decision-makers reach differing conclusions on nonobviousness at a strikingly high rate. The data does not support the hypothesis that technologically sophisticated decision-makers are better able to make judgments from the perspective of a person of ordinary skill in the art. Finally, the analysis provides some potential support for the possibility that technologically trained individuals may experience slightly less of a hindsight bias than untrained decision-makers.

The data reported here can also be compared to earlier studies of nonobviousness decisionmaking, including for time periods prior to the Supreme Court's decision in *KSR v. Teleflex*⁵ and between *KSR* and the effective date of the AIA. Comparing results across these periods indicates that both the district courts and the Federal Circuit reacted significantly to the Supreme Court's decision in *KSR*, but that subsequent to the AIA both judicial bodies have reverted to nonobviousness decisionmaking that is more consistent with pre-*KSR* outcomes.

This article proceeds in three parts. Part I provides a deeper explanation of the challenges of nonobviousness decisionmaking. Part II discusses how these challenges are expected to affect nonobviousness decisionmaking in patent prosecution, administrative patent review, and infringement proceedings in federal court. Part III presents the data concerning nonobviousness decisions at the PTO and in the federal courts and discusses the implications of the data for nonobviousness decisions throughout the patent system.

II. The Challenge of Nonobviousness

The purpose of the nonobviousness standard is to assure that only significant technological advances merit a patent award.⁶ The reasons for this requirement are evident: obvious advances will be achieved without a patent incentive, and obvious advances do not benefit society enough to warrant imposing the costs of a patent

⁴ Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (Sept. 16, 2011) (codified largely in various sections of 35 U.S.C.).

⁵ 550 U.S. 398 (2007).

⁶ *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.* 489 U.S. 141, 156 (1989); DONALD S. CHISUM, 4-11 CHISUM ON PATENTS § 5.01 (2015); ROBERT MERGES & JOHN DUFFY, PATENT LAW AND POLICY: CASES AND MATERIALS 644 (3d ed. 2002).

monopoly on the public.⁷ Thus, the nonobviousness requirement protects society against the social costs both of denying a deserving patent and of granting an undeserving monopoly.⁸ Improper application of the standard would result either in inefficiently low incentives to innovate (reducing technological innovation) or allow the patenting of minor advances, leading to patent thickets and other inefficiencies and similarly reducing future technological advance.⁹

The Patent Act's nonobviousness requirement provides that a patent may not be obtained

if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.¹⁰

Nonobviousness typically presents the greatest validity hurdle to an inventor trying to obtain a patent.¹¹ The importance of the nonobviousness requirement is evident in

⁷ *KSR*, 550 U.S. at 416, 427; *Bonito Boats*, 489 U.S. at 156 (“Both the novelty and the nonobviousness requirements of federal patent law are grounded in the notion that concepts within the public grasp, or those so obvious that they readily could be, are the tools of creation available to all.”); *Graham*, 383 U.S. at 6 (explaining that without innovation and social benefit, patent protection removes useful knowledge from prior art instead of promoting progress).

⁸ *Bonito Boats*, 489 U.S. at 151, 156 (the nonobviousness standard provides “a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy”); *Graham*, 383 U.S. at 6 (“Innovation, advancement, and things which add to the sum of useful knowledge are inherent requisites in a patent system which by constitutional command must promote the Progress of useful Arts. This is the *standard* expressed in the Constitution and it may not be ignored. (internal quotations omitted)).

⁹ FED. TRADE COMM’N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, ch. 4, at 6-7 (2003); Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1577, 1586 (2003); MERGES & DUFFY, *supra* note 6, at 646-47. See generally Gregory N. Mandel, *Leveraging the International Economy of Intellectual Property*, 75 OHIO ST. L.J. 733 (2014) (discussing the need to balance the incentives versus the exclusionary costs of patent rights); Gregory N. Mandel, *Proxy Signals: Capturing Private Information for Public Benefit*, 90 WASH. U. L. REV. 1 (2012) (same).

¹⁰ 35 U.S.C. § 103 (2012). The nonobviousness requirement was formally introduced in the 1952 Patent Act. Prior to 1952, courts recognized that something more than novelty was required for patentability and had read a requirement similar to non-obviousness into the term “invention” in the Patent Act. *Hotchkiss v. Greenwood*, 52 U.S. 248, 267 (1850). The Supreme Court held that the 1952 obvious requirement was generally not intended to change the level of patentable invention, but to codify the judicial precedent deriving from *Hotchkiss*. *KSR*, 550 U.S. at 427; *Graham*, 383 U.S. at 15-17.

¹¹ Christopher C. Kennedy, *Rethinking Obviousness*, 2015 WIS. L. REV. 655, 655 (2015) (stating that “the nonobviousness requirement is generally considered to be the core requirement of patentability” and that nonobviousness is “among the most commonly litigated issues in patent infringement cases, resulting in more invalidity determinations than any other defense”); Mandel, *Patently Non-Obvious*, *supra* note 1, at 1398; John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 208-09 (1998).

patent litigation. The nonobviousness requirement is the patent validity issue that is most commonly litigated and that is most likely to result in a patent being held invalid.¹²

Though the nonobviousness requirement is statutorily recited in relatively succinct language, in practice it presents numerous hurdles to apply. Chief among these are the indeterminacy of the standard, the difficulty of making a judgment from the perspective of a person of ordinary skill in the art (a ‘PHOSITA’), and the hindsight bias. The following sections elaborate upon each of these challenges.

A. Nonobvious Indeterminacy

The Patent Act does not define the term ‘obvious,’ and neither the Supreme Court nor the Federal Circuit—the federal appeals court with jurisdiction over most patent appeals¹³—has ever defined it either. This failure to identify the quantum of advance necessary to achieve nonobviousness renders such evaluations necessarily indeterminate.¹⁴

Nonobviousness is a mixed question of fact and law.¹⁵ The factual part of this inquiry concerns the prior art, the differences between the invention and the prior art, the level of skill in the art, and other objective evidence of nonobviousness.¹⁶ The legal part of this inquiry requires determining whether the differences between the invention and the prior art would have been obvious to one of ordinary skill in the art.¹⁷ Although the Supreme Court has developed certain aspects of the factual portion of the nonobviousness inquiry, it has never delineated the legal portion of the standard. This leaves nonobviousness in the same position as Judge Learned Hand described its predecessor: ‘as fugitive, impalpable, wayward, and vague a phantom as exists in the whole paraphernalia of legal concepts.’¹⁸

In a series of three cases known as the Trilogy, the Supreme Court established the framework for nonobviousness analysis:

Under § 103, the scope and content of the prior art are to be determined; differences between prior art and the claims at issue are to be ascertained; and the level

¹² Allison & Lemley, *supra* note 11, at 208–09; see also GLORIA K. KOENIG, PATENT INVALIDITY: A STATISTICAL AND SUBSTANTIVE ANALYSIS 5–50 (rev. ed. 1980) (finding that obviousness was the most common basis for judicial invalidation of patents for the period 1953–1978); P.J. Federico, *Adjudicated Patents, 1948–54*, 38 J. PAT. OFF. SOC’Y 233, 249 (1956) (finding that obviousness was the most common basis for judicial invalidation of patents for the period studied).

¹³ 28 U.S.C. § 1295 (2012).

¹⁴ Gregory N. Mandel, *The Non-Obvious Problem*, *supra* note 1.

¹⁵ *Graham*, 383 U.S. at 17.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Harries v. Air King Prods. Co.* 183 F.2d 158, 162 (2d Cir. 1950).

of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.¹⁹

The Court's analysis of the nonobviousness of the subject inventions in these three cases involved careful evaluation of the factual background factors identified in the first sentence of the framework and then a simple statement of the Court's legal conclusion. Similarly, in all four of the substantive nonobviousness cases that the Supreme Court has decided in the fifty years since the Trilogy, the Court has elaborated its factual requirements, but never provided content for the legal standard of nonobviousness.²⁰ The Supreme Court's most extensive discussion of nonobviousness determinations since the Trilogy took place in *KSR v. Teleflex*.²¹ Though the Court in *KSR* provides some guidance concerning how to conduct the nonobviousness inquiry (prior art references may be combined in the nonobviousness inquiry only when there is a 'reason to combine'), it did not indicate how to measure or evaluate the quantum of ingenuity necessary to actually satisfy the standard.²²

The Federal Circuit has historically provided some limited direction concerning the level of ingenuity necessary to satisfy the nonobviousness standard in certain cases. For example, the Federal Circuit had established that an invention was not obvious simply because it may have been 'obvious to try,' but rather an obvious-to-try invention was only obvious if a person of ordinary skill would also have had a reasonable expectation of success.²³ Even this limited guidance, however, was curtailed by the Supreme Court in *KSR* where the Court held that 'obvious to try' could indicate that an invention was obvious.²⁴ Some vestige of the 'obvious-to-try doctrine' may remain, but it does not meaningfully identify what is obvious or not in most cases.

¹⁹ *Graham*, 383 U.S. at 17. The other two cases in the Trilogy are *Calmar v. Cook Chem.*, 383 U.S. 1 (1966), and *United States v. Adams*, 383 U.S. 39 (1966).

²⁰ *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 415–22 (2007); *Dann v. Johnston*, 425 U.S. 219, 220–22 (1976); *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 273 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 59 (1969). *Dennison Manuf. Co. v. Panduit Corp.*, 475 U.S. 809 (1986), hinted at this problem, but did not resolve it. In *Dennison* the Supreme Court issued a brief opinion remanding a Federal Circuit reversal of a district court nonobviousness holding, questioning whether the Circuit had afforded appropriate deference to the district court's factual nonobviousness findings. 475 U.S. at 811. In doing so, the Court indicated a need to differentiate the legal nonobviousness decision from the underlying factual inquiries. *Id.* On remand, however, the Circuit simply held that its obviousness conclusion had been one of law, not fact, and cited the Supreme Court's own opinion in *Graham*, which the Circuit noted, "disagreed with conclusions reached below, did not remand, [and] described no finding as 'clearly erroneous.'" *Panduit Corp. v. Dennison Manuf. Co.*, 810 F.2d 1561, 1567 (1987). The Supreme Court denied certiorari to review the Federal Circuit decision, leaving the issues unresolved. *Dennison Manuf. Co. v. Panduit Corp.*, 481 U.S. 1051, 1052 (1987).

²¹ *KSR*, 550 U.S. 398.

²² *Id.*

²³ See, e.g. *Brown & Williamson Tobacco Corp. v. Phillip Morris, Inc.*, 229 F.3d 1120, 1124–25 (Fed. Cir. 2000) (citing *In re O'Farrell*, 853 F.2d 894, 903–04 (Fed. Cir. 1988)).

²⁴ *KSR*, 550 U.S. at 420–21.

In short, the Supreme Court and Federal Circuit precedent does not define the legal nonobviousness standard. Simply using the term ‘non-obvious’ as a requirement does not create an applicable metric; it is nothing more than a naked legal conclusion.²⁵ In this regard, the nonobviousness requirement stands apart from the negligence standard to which it is sometimes compared.²⁶ Negligence has an elaborated definition that is not circularly self-referential. Negligence is commonly defined as failing to provide the standard of care that a reasonable or average person would use under similar circumstances.²⁷ Judge Learned Hand’s famous empirical formula for evaluating reasonableness provides a stricter definition: whether the cost of avoiding the accident is less than the probability of the accident times the cost of the potential injury.²⁸ In addition, precedent provides greater determinacy in negligence law than in nonobviousness law. Precedent concerning the standard of due care, such as the relevance of common industry practice or regulatory requirements, provides guidance for judging negligence.²⁹ Such considerations generally do not exist for assessing nonobviousness.

Both the Supreme Court in its nonobviousness cases and the legislative history of the nonobviousness standard in Section 103 have pointed to the need to establish a ‘more practical test of patentability’ to produce more ‘uniformity and definiteness’ in nonobviousness decisions.³⁰ This objective, however, has not been achieved. There remains no clear guidance on the requisite measure of nonobviousness or on how a decision-maker is expected to evaluate whether an invention meets the standard. What remains is a bare legal standard that is necessarily indeterminate.³¹

B. The Person of Ordinary Skill

Adding to the nonobviousness challenge, a decision-maker must evaluate non-obviousness from the perspective of a person of ordinary skill in the art.³² This presents an inherent epistemic challenge.³³ Lay individuals, such as judges and jurors

²⁵ H.L.A. HART, *THE CONCEPT OF LAW* 130–31 (1961).

²⁶ *See Graham v. John Deere of Kan. City*, 383 U.S. 1, 18 (1966) (“What is obvious is not a question upon which there is likely to be uniformity of thought in every given factual context. The difficulties, however, are comparable to those encountered daily by the courts in such frames of reference as negligence and scienter.”).

²⁷ RESTATEMENT (SECOND) OF TORTS § 282 (1965); BLACK’S LAW DICTIONARY 716 (abr. 6th ed. 1991).

²⁸ *United States v. Carroll Towing Co.* 159 F.2d 169, 173 (2d Cir. 1947).

²⁹ *See, e.g., Surlis ex rel. Johnson v. Greyhound Lines, Inc.* 474 F.3d 288, 300 (6th Cir. 2007) (noting “the generally accepted rule that industry standards [and safety regulations] may be proven as some evidence of care”); *Muncie Aviation Corp. v. Party Doll Fleet, Inc.* 519 F.2d 1178, 1180 (5th Cir. 1975) (“Evidence of custom within a particular industry, group, or organization is admissible as bearing on the standard of care in determining negligence.”).

³⁰ *Graham*, 383 U.S. at 17–18.

³¹ HART, *supra* note 25, at 130–31.

³² 35 U.S.C. § 103.

³³ *See* Scott Brewer, *Scientific Expert Testimony and Intellectual Due Process*, 107 YALE L.J. 1535,

untrained in the pertinent technological field, cannot accurately apply the nonobviousness requirement because it requires them to have the mental state of another person.

Only an actual person having ordinary skill in the art could know what is obvious to such a person.³⁴ This problem is most apparent for complex technologies. A lay decision-maker would be lucky to even understand the gist of the problem at issue in sophisticated technological fields, such as those involving the human genome or synthetic biology. A layperson cannot determine with any significant accuracy whether solving such a problem would have been obvious to a person of ordinary skill in that art. This limit in cognitive capability will largely persist regardless of the introduction of prior art evidence and expert testimony, and will exist for simpler technological fields as well.

Psychological research has revealed that individuals are cognitively incapable of making judgments from other people's perspectives. A seminal study involved participants tapping out the rhythms of well-known tunes while a second participant listened.³⁵ The tappers predicted that the listeners would identify the tunes 50% of the time. The listeners were actually only able to identify the tunes 3% of the time.³⁶ The tappers were not able to put themselves in the perspective of the listeners; instead, the tappers assumed that what was obvious to them would be at least somewhat obvious to the listeners as well.³⁷ Other studies have found that individuals cannot accurately judge the opinions of persons they know have different information, even when the individual judging has greater information and it is in their economic interest to make an accurate evaluation.³⁸ This phenomenon is dubbed the 'curse of knowledge.'³⁹ Individuals are cognitively unable to detach themselves from their own perspective when asked to evaluate the perspective of another.⁴⁰

1539 (1998) (discussing the similar epistemic challenge created by competing expert testimony).
³⁴ See Doug Lichtman & Mark Lemley, *Rethinking Patent Law's Presumption of Validity*, 60 STAN. L. REV. 45, 123 (2007) ("District Court judges are poorly equipped to read patent documents and construe technical patent claims. Lay juries have no skill when it comes to evaluating competing testimony about the originality of a technical accomplishment."). This problem existed under the earlier judicially-created requirement of invention as well. See *Parke-Davis & Co. v. H. K. Mulford Co.*, 189 F. 95, 115 (C.C.S.D.N.Y. 1911) ("I cannot stop without calling attention to the extraordinary condition of the law which makes it possible for a man without any knowledge of even the rudiments of chemistry to pass upon such questions as these. [O]nly a trained chemist is really capable of passing upon such facts, e.g. in this case the chemical character of [the inventor's] so-called 'zinc compound' or the presence of inactive organic substances.").

³⁵ See Justin Kruger et al. *Egocentrism Over E-Mail: Can We Communicate as Well as We Think?*, 89 J. PERSONALITY & SOC. PSYCHOL. 925, 933 (2005).

³⁶ See *id.*

³⁷ See *id.*

³⁸ Colin Camerer et al. *The Curse of Knowledge in Economic Settings: An Experimental Analysis*, 97 J. POL. ECON. 1232, 1232 (1989).

³⁹ *Id.*

⁴⁰ *Id.* at 1244–45; Kruger, *supra* note 35, at 933.

Not only are individuals unable to place themselves in the perspective of another, but they are also significantly overconfident in their ability to do so.⁴¹

These findings raise serious doubts as to the ability of lay decision-makers to judge whether an invention would have been obvious to a person of ordinary skill in the art.⁴² The experiments above involved participants judging the perception of others who had equal skill and experience. Not only do lay nonobviousness decision-makers face the challenges revealed by the curse of knowledge, but they also have to judge the perspectives of individuals who generally have far greater relevant education and training. If individuals usually cannot judge the perspective of an equally trained person with less information, they will be profoundly challenged to judge the perception of a more highly trained person with greater information.

Nonobviousness decision-makers do not rely solely on their own judgment concerning whether an invention was obvious to a person of ordinary skill. Decision-makers are able to draw on expert testimony and related evidence concerning the art and what would have been obvious. In most circumstances, however, this assistance will not resolve the curse of knowledge problem. Where a decision-maker does not independently understand the technology or problem at issue, the decision-maker is not epistemically competent to judge the expert testimony pertaining to nonobviousness.⁴³

Consider the problem this way: imagine that one expert opines that a certain combination was within the knowledge of a person of ordinary skill in the art and a second expert states that such a combination was unknown and not obvious. Assume each expert provides a potentially plausible explanation for his or her opinion. In this situation, lay decision-makers would not have an objective basis by which to determine which opinion is correct, given that the decision-maker is untrained in the technology. In effect, we are asking the decision-maker to be a better judge of the technological ingenuity of an invention than experts who are highly skilled in the field.⁴⁴ In most cases, lay decision-makers lack the capability to make such a determination.⁴⁵

⁴¹ Kruger, *supra* note 35, at 933.

⁴² The findings concerning both individual inability to judge others' perspectives and overconfidence in such judgment likely are part of the explanation for the hindsight bias in nonobviousness decisions. *See infra* Part I.C.

⁴³ Scott Brewer, *Scientific Expert Testimony and Intellectual Due Process*, 107 *YALE L.J.* 1535, 1539 (1998).

⁴⁴ *See id.* at 1595 (discussing similar issues for scientific expert testimony).

⁴⁵ The Supreme Court opinion, authored by Justice Souter, in *Markman v. Westview Instruments, Inc.* provided some insight into this dilemma: '[I]n these cases [involving complex technical patents] a jury's capabilities to evaluate demeanor, to sense the mainsprings of human conduct, or to reflect community standards are much less significant than a trained ability to evaluate the testimony in relation to the overall structure of the patent.' 517 U.S. 370, 389–90 (1996) (internal quotations and citations omitted). The problem with this analysis is that, while recognizing the de-

This concern about making a judgment from another person's perspective exists not only for technologically lay judges and jurors, but also for technologically trained PTO examiners and PTAB administrative judges. Though examiners and administrative judges may be more technologically sophisticated than lay individuals, they are still trained for different tasks and have different jobs than persons of ordinary skill in an art.⁴⁶ Examiners and administrative judges may know the general technological field of a patent application, but they are not 'persons of ordinary skill' in the specific technology at issue in many inventions.⁴⁷ This is simply a matter of modern technological advance. Technological fields have become highly particularized and differentiated. For these reasons, examiners and administrative judges will face similar cognitive challenges in evaluating nonobviousness, particularly the challenge that technological problems often can be more complex than they appear to be to persons of lesser understanding.⁴⁸ Examiners and administrative judges will also tend to spend significantly less time and have significantly fewer resources and information available to them than persons of ordinary skill who are pursuing inventive activity.⁴⁹

Patent examiners, PTAB administrative judges, and lay judges and jurors will all have a very difficult time evaluating nonobviousness from the perspective of a PHOSITA. This cognitive challenge is inherent in the nonobviousness inquiry and, though it may be lessened, cannot be cured with greater information or expert testimony.

C. Hindsight Bias

The nonobviousness standard of Section 103 requires a decision-maker to make a historical judgment: whether the invention would have been obvious at a time in the past.⁵⁰ To reach a proper nonobviousness conclusion, the decision-maker must step backward in time to a moment when the invention was unknown. Unfortunately, this mandate is more easily stated than achieved. Humans are cognitively incapable of ignoring what they have learned (here, that the invention was achieved), as

iciency in juror ability to evaluate expert technical testimony, *Markman* holds that such a decision is for the court. For the same reasons discussed above, however, lay judges also generally cannot be expected to be able to evaluate technical expert testimony.

⁴⁶ See, e.g. Burk & Lemley, *supra* note 9, at 1187–88 (stating that person of ordinary skill should be 'an ultimate conclusion of law based upon evidence, not dictated by the capabilities or knowledge of the Patent Office examiner'); Rebecca S. Eisenberg, *Obvious To Whom? Evaluating Inventions from the Perspective of PHOSITA*, 19 BERKELEY TECH. L.J. 885, 888, 898 (2004) (asserting patent examiners will 'have less technological skill than the hypothetical [person of ordinary skill]' as they spend more time in a patent office away from technological fields).

⁴⁷ Lichtman & Lemley, *supra* note 34, at 53.

⁴⁸ Richard S. Gruner, *Everything Old is New Again: Obviousness Limitations on Patenting Computer Updates of Old Designs*, 9 B.U. J. SCI. & TECH. L. 209, 264 (2003); Kimberly A. Moore, *Jury Demands: Who's Asking?*, 17 BERKELEY TECH. L.J. 847, 848 (2002).

⁴⁹ Lichtman & Lemley, *supra* note 47, at 46–47, 53.

⁵⁰ 35 U.S.C. § 103 (2012); *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 35–36 (1966).

is required for the proper ex ante analysis. Psychologists have studied this phenomenon and have termed it the ‘hindsight bias.’⁵¹

The hindsight bias routinely affects both lay and expert judgment in many fields.⁵² Individuals are not cognitively able to prevent knowledge gained through hindsight from impacting their analysis of past events. Rather, individuals routinely overestimate the ex ante predictability of events after they have occurred. Once individuals have hindsight information, they consistently exaggerate what could have been anticipated in foresight and not only tend to view what has occurred as having been inevitable, but also as having appeared relatively inevitable beforehand.⁵³ In law, the hindsight effect has been found to affect mock juror judgments about the legality of searches and seizures, and tort law judgments about negligence, recklessness, and whether reasonable precautions were taken.⁵⁴ It has also been demonstrated in patent law.

I have conducted prior research on the hindsight bias in patent law nonobviousness decisions.⁵⁵ In a series of experiments, participant mock jurors were given a hypothetical fact scenario concerning an invention. The scenarios were based on facts surrounding actual issued patents that were challenged on nonobviousness validity grounds in litigation and were the subject of a reported decision. The scenarios included background information about the field of art of the invention, a variety of prior art reference information, and a description of the problem that a person cast in the role of the inventor was working on. The scenarios were selected for inventions that would be easy for mock jurors to comprehend to reduce the need for significant material on the skill level of a person having ordinary skill in the art,⁵⁶

⁵¹ Baruch Fischhoff, *Hindsight ≠ Foresight: The Effect of Outcome Knowledge on Judgment Under Uncertainty*, 1 J. OF EXPERIMENTAL PSYCHOL. HUM. PERCEPTION & PERFORMANCE 288, 289 (1975); see also Susan J. LaBine & Gary LaBine, *Determinations of Negligence and the Hindsight Bias*, 20 LAW & HUM. BEHAV. 501, 502–04 (1996) (surveying a wide variety of hindsight bias studies); Jay J. Christensen-Szalanski & Cynthia Fobian Willham, *The Hindsight Bias: A Meta-Analysis*, 48 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 147, 162–64 (1991) (conducting a meta-analysis of over 120 hindsight bias studies).

⁵² Kim A. Kamin & Jeffrey J. Rachlinski, *Ex Post ≠ Ex Ante: Determining Liability in Hindsight*, 19 LAW & HUM. BEHAV. 89, 90–91 (1995) (citing studies revealing hindsight bias in surgeons’ appraisal of surgical cases, physicians’ medical diagnoses, women’s reactions to pregnancy tests, voters’ election predictions, and nurses’ employee evaluations).

⁵³ Baruch Fischhoff, *For Those Condemned to Study the Past: Heuristics and Biases in Hindsight*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES 335, 341 (Daniel Kahneman et al. eds. 1982).

⁵⁴ Kamin & Rachlinski, *supra* note 52 at 98–99; LaBine & LaBine *supra* note 51; CASS R. SUNSTEIN ET AL., PUNITIVE DAMAGES: HOW JURIES DECIDE 103–04 (2002).

⁵⁵ See generally Gregory N. Mandel, *Patently Non-Obvious II: Experimental Study on the Hindsight Bias Issue before the Supreme Court in KSR v. Teleflex*, 9 YALE J. L. & TECH. 1 (2007); Gregory N. Mandel, *Patently Non-Obvious*, *supra* note 1.

⁵⁶ In this manner, this study imitated the Supreme Court’s decision in *Graham v. John Deere Co. of Kansas City*, where the Court first instituted the PHOSITA analysis, and implicitly applied its own (lay) understanding of what a person having ordinary skill in the art would know. 383 U.S. 1, 24–26, 32–35 (1966) (conducting an analysis of whether the inventions at issue were obvious to a

and for inventions that presented apparently disputable questions of nonobviousness.⁵⁷

The experiments utilized a between-subjects design. Participants in the control condition received all of the lead-up information described above. These participants were placed in the position from which nonobviousness is *supposed* to be judged: prior to knowledge about the invention being revealed. Participants in the hindsight condition received the exact same information as participants in the control condition, but with one additional sentence at the end of the scenario revealing the inventor's invention. Thus, participants in the hindsight condition were placed in the position from which nonobviousness judgments are *actually* made.

The results revealed a significant hindsight bias in nonobviousness determinations. In one scenario involving an instructional baseball product, only 34% of participants in the foresight condition considered the invention obvious, while 71% of participants in the hindsight condition thought that the invention was obvious.⁵⁸ In a separate scenario involving a new fishing lure, 23% of foresight participants versus 54% of hindsight participants thought that the invention was obvious.⁵⁹ These differences are all statistically significant at the $p < .001$ level.⁶⁰

The nonobviousness hindsight bias studies also examined the effect of various jurisprudential methods that the Supreme Court and the Federal Circuit have developed in an effort to combat the hindsight problem. These methods include jury instructions warning jurors about the hindsight bias and instructing them to avoid it, the Supreme Court's nonobviousness framework outlined in *Graham v. John Deere*, and the Federal Circuit's (subsequently overturned) teaching, suggestion, or motivation requirement.⁶¹ The results revealed that none of these doctrines significantly reduced the hindsight bias in nonobviousness judgments.

The outcomes of these experiments indicate that the hindsight bias significantly influences nonobviousness decisions. Participants who were not informed of the invention were substantially more likely to judge a solution nonobvious than partici-

PHOSITA without any factual record concerning what a PHOSITA would know or know how to do).

⁵⁷ The inventions, prior art, and facts were modified in part from the actual cases in order to meet these requirements and other practical concerns.

⁵⁸ Mandel, *Patently Non-Obvious II*, *supra* note 55, at 15–16; Mandel, *Patently Non-Obvious*, *supra* note 1, at 1409. The percentages stated in the text are arrived at by combining the results of the two identical studies.

⁵⁹ Mandel, *Patently Non-Obvious*, *supra* note 1, at 1409.

⁶⁰ Mandel, *Patently Non-Obvious II*, *supra* note 55, at 16; Mandel, *Patently Non-Obvious*, *supra* note 1, at 1409.

⁶¹ Mandel, *Patently Non-Obvious II*, *supra* note 55, at 13–17; Mandel, *Patently Non-Obvious*, *supra* note 1, at 1408–10. The presumption of validity that adheres to issued patents, *see* 35 U.S.C. § 282 (2000), is sometimes identified as a potential remedy to the hindsight problem, but such a contention is inappropriate. Mandel, *Patently Non-Obvious*, *supra* note 1, at 1437–38.

pants who were informed of what the invention was. The magnitude of the hindsight bias in these patent scenarios was striking, greater than that reported for other legal judgments.⁶² Ex post knowledge of invention deeply affected participants' conclusions regarding whether an invention was nonobvious ex ante.

III. Variation Among Institutional Actors

Before turning to the data on nonobviousness decisions by various decision-makers in the patent system, it is worth exploring how the nonobviousness challenges outlined above might be expected to affect different decision-making entities. This variation could depend on the technological expertise of a given body, the procedural posture in which the nonobviousness decision presents itself, and other factors.

Nonobviousness issues arise in two different contexts in the patent system. First, nonobviousness decisions are made during patent prosecution when an applicant is applying for a patent.⁶³ Such procedures are ex parte and involve an initial determination of whether an invention is nonobvious.⁶⁴ The standard for review during patent prosecution is a preponderance of the evidence.⁶⁵

Second, once a patent is issued, it is entitled to a presumption of validity.⁶⁶ Subsequent challenges to a patent's validity may be brought at both the PTO and in federal court. Such challenges will situate in different procedural postures and evaluate patent validity under different standards.⁶⁷ Many will involve an adversarial party opposing the patent's validity.⁶⁸

⁶² The hindsight bias shifted the decisions of about one-half and about one-third of the mock jurors in the baseball and fishing lure scenarios, respectively. Studies of the hindsight bias in other legal judgments have found that 24% to 34% of mock jurors or judges shifted their judgments. Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, *Inside the Judicial Mind*, 86 CORNELL L. REV. 777, 818 (2001) (24% of judges shifted decision in Section 1983 scenario in hindsight); Reid Hastie, David A. Schkade & John W. Payne, *Juror Judgments in Civil Cases: Hindsight Effects on Judgments of Liability for Punitive Damages*, 23 LAW & HUM. BEHAV. 597, 606 (1999) (24% of mock jurors shifted decision concerning punitive damages in hindsight); Kamin & Rachlinski, *supra* note 52, at 98 (34% of mock jurors shifted decision concerning negligence in hindsight); Merrie Jo Stallard & Debra L. Worthington, *Reducing the Hindsight Bias Utilizing Attorney Closing Arguments*, 22 LAW & HUM. BEHAV. 671, 679 (1998) (28% of mock jurors shifted decision concerning negligence in hindsight).

⁶³ CHISUM, *supra* note 6, at § 11.03 (1)(c).

⁶⁴ Christopher A. Cotropia, *Predictability and Nonobviousness in Patent Law After KSR*, 20 MICH. TELECOMM. & TECH. L. REV. 391, 409 (2014); John M. Golden, *Patentable Subject Matter and Institutional Choice*, 89 TEX. L. REV. 1041, 1098 (2011); Melissa F. Wasserman, *The Changing Guard of Patent Law: Chevron Deference for the PTO*, 54 WM. & MARY L. REV. 1959, 2014 (2013).

⁶⁵ MANUAL OF PATENT EXAMINING PROCEDURE § 706.I.

⁶⁶ 35 U.S.C. § 282(a) (2012); *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 100 (2011).

⁶⁷ *Bristol-Myers Squibb Co. v. Teva Pharm. USA, Inc.* 752 F.3d 967, 972–73 (Fed. Cir. 2014); *Abbott Labs. v. Cordis Corp.* 710 F.3d 1318, 1320–21 (Fed. Cir. 2013); DONALD S. CHISUM, 6A-19

At the PTO, subsequent to the AIA, there are a host of post-grant procedures that may be instituted to challenge an issued patent's validity. Each procedure is subject to different procedural requirements and different standards for initiation. Of primary concern here are post-grant review and inter partes review. Post-grant review is an adversarial proceeding brought before the PTAB by a third party to challenge a recently issued patent.⁶⁹ Post-grant review challenges must be brought within nine months after the grant of the patent or issuance of a reissue patent.⁷⁰ A third party may challenge the patent on nearly any validity grounds.⁷¹ Inter partes review is likewise an adversarial proceeding brought before the PTAB by a third party to challenge a patent.⁷² Inter partes review challenges may only be brought after the nine-month post grant review window has passed.⁷³ Inter partes review is limited to novelty and nonobviousness validity issues, and only to such issues arising out of prior art consisting of patents or printed publications.⁷⁴ Patent invalidity challenges brought through post-grant review and inter partes review procedures are both subject to preponderance of the evidence standards.⁷⁵

Patent validity may also be challenged in federal court by an accused infringer. In these cases, the burden is on the challenger to prove invalidity by clear and convincing evidence.⁷⁶ How these different standards and situations may play out in the adjudicative process is discussed below.

A. The Narrowing Effect in Prosecution

For patent prosecution, one would anticipate a winnowing effect in nonobviousness decisions as a challenge progresses through the process. This narrowing should occur because patent applicants will only appeal adverse decisions. At each stage of prosecution there should be a winnowing as the 'easy' cases involving valid patents are granted, and some percentage of denials are appealed. Some of the close cases that are denied at an earlier stage will succeed at a later stage, while most of the clear cases of denial will be denied subsequently as well. Through successive stages, most close cases would be expected to be eventually granted (if one flips a coin several times, odds are in the favor of getting at least one heads). This

CHISUM ON PATENTS § 19.02 (2015).

⁶⁸ Christopher C. Kennedy, *Rethinking Obviousness*, 2015 WIS. L. REV. 665, 704–07.

⁶⁹ 35 U.S.C. § 321(a) (2012).

⁷⁰ 35 U.S.C. § 321(c) (2012).

⁷¹ § 321(b); Wasserman, *supra* note 64, at 1993.

⁷² 35 U.S.C. § 311(a) (2012) (stating that "[s]ubject to the provisions of this chapter, a person who is not the owner of a patent may file with the Office a petition to institute an inter partes review of the patent. The Director shall establish, by regulation, fees to be paid by the person requesting the review, in such amounts as the Director determines to be reasonable, considering the aggregate costs of the review").

⁷³ § 311(c)(1).

⁷⁴ § 311(b).

⁷⁵ 35 U.S.C. §§ 316(e), 326(e).

⁷⁶ *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 102 (2011).

will leave a pool of cases at later stages that involve increasingly large percentages of applications that have been properly denied. As a result, the rates of invalidity in the patent prosecution process should continually increase as one moves through the various stages of the process.

This effect may be mitigated slightly by the added cost of appeals. To the extent patent applicants can correctly judge their likelihood of success on appeal, they will tend to appeal improperly denied applications to a greater extent than correctly denied applications. The cost of appeal, however, is generally relatively low relative to the overall cost of patent prosecution,⁷⁷ so this difference would not be expected to create too significant of an effect.

This hypothesis concerning a winnowing effect through patent prosecution is based on the assumption that there is some correlation across adjudicative bodies in their decision-making analysis. That is, it is based on the presumption that nonobviousness decisions are not entirely indeterminate.

The model for patent prosecution is relatively straight-forward because it only involves a single decision-maker at each stage with respect to whether to continue to prosecute. For litigation, on the other hand, it takes two to tango.

B. Incentives to Litigate

In their seminal work on the incentives for parties to litigate, George Priest and Benjamin Klein hypothesized that litigants will tend to go to trial only in relatively uncertain cases.⁷⁸ If the case is not close, rational parties will settle.⁷⁹ Based on this rationale, we would expect litigants to have about a fifty-fifty chance of prevailing in most cases.⁸⁰ Priest's and Klein's hypothesis is subject to a number of qualifications, including that the parties have symmetric stakes.⁸¹

Patent disputes present a context in which parties often will have asymmetric stakes in the outcome. In many cases involving practicing entities, an accused infringer's risk is that they will have to pay the patent owner licensing fees if they lose or figure out how to design around the patented invention, whichever appears less expensive. If the patent owner loses on validity grounds, however, the patent owner will not only miss out on the accused infringer's potential licensing value, but will also suffer similar losses with respect to other licensees and may face great-

⁷⁷ AIPLA, 2015 REPORT OF THE ECONOMIC SURVEY (2015); David Fagundes & Jonathan S. Masur, *Costly Intellectual Property*, 65 VAND. L. REV. 677, 689–90 (2012) (reporting that patentees spend an average of approximately \$22,000 to successfully prosecute a patent application).

⁷⁸ George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 16–17 (1984).

⁷⁹ *Id.* at 17.

⁸⁰ *Id.*

⁸¹ *Id.* at 7, 24–29.

er competition from multiple parties as a result. These effects will vary based on the situation, but in many contexts patent owners may face far greater risks from invalidity than the risks accused infringers face from a finding of no invalidity.

For litigation by non-practicing patent owners, however, the incentives are different. Such owners only monetize their patent value through litigation or the threat of litigation.⁸² Consequently, they need to take the risk of litigation. For these reasons, patent validity litigation outcomes are not necessarily expected to result in evenly divided success rates for each side.

The effects described above will generally exist in adversarial post-grant challenges at the PTO as well. Parties choosing to challenge patents in post-grant procedures take the risk that a reaffirmation of patent validity will weaken their position going forward, while patentees face the prospect of patent invalidity. Depending on the context, these risks will often be asymmetrical, so it is not possible to predict an expected outcome rate *ex ante*.

C. Expertise and Experience

Several of the nonobviousness challenges identified above might be ameliorated by expertise in the pertinent technological field or by experience making nonobviousness decisions. Most explicitly, PTAB administrative judges have greater technical expertise than the average federal court judge.⁸³ This factor may assist them in evaluating nonobviousness from the perspective of the person of ordinary skill in the art.⁸⁴ Whether such expertise will tend to cause PTAB administrative judges to hold patent claims nonobvious at a greater or lesser rate is unclear: greater expertise may lead one to believe that an apparently inventive step is less substantial than it appears to lay individuals or greater expertise may highlight a cognitive leap that was required to achieve an advance.

PTAB administrative judges will also tend to have greater experience practicing patent law and will make many more nonobviousness decisions than federal judges. Studies of hindsight bias in other contexts have found that individuals familiar with a task, either because they have experienced it or because they are an expert in an area relevant to the task, demonstrate slightly less of a hindsight bias than individu-

⁸² James Bessen & Michael J. Meurer, *The Direct Costs From NPE Disputes*, 99 CORNELL L. REV. 387, 390 (2014); David L. Schwartz & Jay P. Kesan, *Analyzing the Role of Non-Practicing Entities in the Patent System*, 99 CORNELL L. REV. 425, 429 (2014).

⁸³ Christi J. Guerrini, *Defining Patent Quality*, 82 FORDHAM L. REV. 3091, 3120 n.150 (2014) (stating “[u]nlike PTAB judges, federal court judges are not required to have any technical expertise to hear patent cases”).

⁸⁴ Ryan R. Klimczak, *i4i and the Presumption of Validity: Limited Concerns Over the Insulation of Weak Patents*, 27 BERKELEY TECH. L.J. 299, 316, 319 (2012) (stating “the technical expertise of the PTO provides a more favorable forum for more conceptually challenging pieces of prior art and combinations of prior art that may be less accessible to judges and jurors in litigation”).

als who are unfamiliar with the task.⁸⁵ The magnitude of the improvement, however, is small: the effect size of the hindsight bias for those familiar with the task is only 0.2 standard deviations less than for those unfamiliar with the task.⁸⁶ This expertise benefit is unlikely to accrue to most judges. Federal district court judges tend to hear few patent cases⁸⁷ and appear to hold inventions nonobvious at similar rates as juries (who lack such experience).⁸⁸ Though Federal Circuit judges are in a different position, a study of cognitive biases among judges found that judges exhibited the ‘hindsight bias to the same extent as mock jurors and other laypersons.’⁸⁹

Neither technological expertise nor experience in making nonobviousness determinations, however, can ameliorate the indeterminacy of nonobviousness analysis. With the foregoing discussion as background, the following part presents the results of the instant nonobviousness study.

IV. Nonobviousness Decisions

As discussed above, nonobviousness decisions are made by a variety of decision-makers under differing procedural postures. Though the situational context is not identical between the various bodies, it is useful to compare nonobviousness rates to better understand what factors may be influencing nonobviousness decisionmaking and the effects of the challenges described earlier.

A. Methodology and Results

I collected data on the rates at which various tribunals held patent applications or patents obvious versus nonobvious. Only utility patents were considered and double-patenting decisions were removed from the dataset. The nonobviousness decisions are differentiated by tribunal (PTAB, district court, or Federal Circuit) and by the procedural posture of the validity issue (patent prosecution, inter partes review, or infringement litigation).⁹⁰ In each case, the data collection began with decisions issued on December 31, 2015 and worked backwards from that date until 100 reported decisions concerning nonobviousness had been identified for the particular tribunal in each procedural posture. Opinions that did not reach a final decision on

⁸⁵ Christensen-Szalanski & Willham, *supra* note 51, at 155.

⁸⁶ *Id.* This calculation is based on data for conditions in which an event did occur, the condition most appropriate for the non-obvious determination.

⁸⁷ Neil E. Graham, *Specialized Patent Trial Court, Judges, Debated at House Hearing on Patent Reform*, 70 PAT. TRADEMARK & COPYRIGHT J. (BNA) 657, 657 (2005) (citing the testimony of Kimberly A. Moore and John B. Pegram before the House Subcommittee on Courts, the Internet, and Intellectual Property). That being said, certain districts hear significantly more patent cases and a pilot program directs more cases to certain judges. 28 U.S.C. § 137 (2015).

⁸⁸ Allison & Lemley, *supra* note 11, at 214–15. Although the difference was not significant, judges did conclude that an invention was obvious more frequently than juries did. *Id.*

⁸⁹ Guthrie et al. *supra* note 62, at 803, 818.

⁹⁰ There are too few post-grant review nonobviousness decisions to date to provide statistically significant information.

the merits on the issue of nonobviousness are not included in the dataset. If there were not 100 pertinent decisions issued subsequent to March 16, 2013 (the effective date of the AIA's first inventor to file regime), the data collection terminated at March 16, 2013.

One hundred decisions were identified for the PTAB prosecution and inter partes review proceedings, as well as for the district court infringement proceedings. There were no reported district court prosecution decisions for this time period.⁹¹ Federal Circuit prosecution and infringement decisions did not reach the 100-case threshold; there were forty-one and fifty-six reported decisions, respectively, in these contexts here. The patent prosecution data is reported in Table 1 and the validity challenge data in Table 2. The PTAB inter partes review data is included with the district court and Federal Circuit infringement litigation data because all involve adversarial challenges to granted patents.

Tribunal	N	Date range	Nonobviousness rate
PTAB	100	Dec. 22, 2015 – Dec. 31, 2015	37%
District Court	0	Mar. 16, 2013 – Dec. 31, 2015	N/A
Federal Circuit	41	Mar. 16, 2013 – Dec. 31, 2015	10%

Table 1. Patent Prosecution Nonobviousness Rates.

⁹¹ A patent applicant who wants to appeal a denial by the PTAB may appeal either to the District Court for the Eastern District of Virginia or directly to the Federal Circuit. 35 U.S.C. §§ 141, 145 (2012). The vast majority of applicants appeal directly to the Federal Circuit, as confirmed in the data here, but applicants may appeal to the District Court in order to introduce new evidence or for other reasons. § 145.

Tribunal	Proceeding	N	Date range	Nonobviousness rate
PTAB	Inter Partes Review	100	Sep. 23, 2015 – Dec. 31, 2015	21%
District Court	Infringement Litigation	100	Oct. 17, 2013 – Dec. 31, 2015	58%
Federal Circuit	Infringement Litigation	56	Mar. 16, 2013 – Dec. 31, 2015	54%

Table 2. Patent Invalidation Challenge Nonobviousness Rates.

B. Discussion

The results of the nonobviousness analysis provide a variety of evidence concerning the effects of each of the three nonobviousness challenges identified above.

1. Indeterminacy

One way to evaluate the extent of indeterminacy in a legal standard is the likelihood that two similarly situated decision-makers will reach differing conclusions on the same legal issue. A rule that tends to result in similar outcomes among varied decision-makers is more determinate than a rule that tends to result in widely varied decisions. This variation is particularly easy to evaluate on binary issues such as nonobviousness.

Viewed through this lens, the results here appear to affirm the hypothesis that nonobviousness is a significantly indeterminate standard. The most direct evidence is the PTAB's rate of holding at least some claims to be nonobvious in 37% of patent prosecution appeals. In these circumstances, the PTAB is evaluating the same evidence as the patent examiner. Where the patent examiner concluded that the claim at issue was obvious, 37% of the time the PTAB concluded the opposite. If nonobviousness decisions were being decided randomly (e.g., a flip of a coin), we would expect a nonobviousness rate of 50% in PTAB prosecution appeals; 37% is not far off. Accordingly, the data indicates a highly indeterminate nonobviousness standard.

Various selection effects may be affecting these results. For example, patent applicants may be more likely to appeal perceived close nonobviousness cases or may hire more experienced attorneys to handle PTAB appeals. Either situation could help explain why the PTAB's reversal rate is so high. Arguably, the former explanation would require that patent applicants could identify which are the close or incorrectly decided nonobviousness cases more successfully than patent examiners. Though plausible, this explanation does not seem highly likely, and would raise significant concerns about the ability of patent examiners to judge nonobviousness in general.

In addition, the selection effects likely do not provide a full explanation of the high PTAB nonobviousness rate because of the relatively inexpensive cost of appeal and the asymmetric benefits of appeal. As noted above, appeal to the PTAB adds only a modest expense above the total cost of patent prosecution. This suggests that for economically-rational actors it is worth it to appeal in many cases in which a patent application is rejected. Further, there are asymmetric benefits to appeal for the patent applicant. If the applicant loses, the applicant's only loss is the cost of the appeal. If the applicant prevails, the applicant receives the full benefit of a patent grant. For these reasons, we would actually expect to see a high volume of appeals and a low success rate. The high rate of nonobviousness reversals by the PTAB is strong evidence of significant nonobviousness indeterminacy.

That being said, the nonobviousness standard is not fully indeterminate. Not only does the PTAB affirm the examiner's decision on obviousness 63% of the time, but the Federal Circuit concurs with the PTAB's nonobviousness decision 90% of the time. Though it is possible that some of this agreement is due to deference, the Federal Circuit's willingness to reverse other appealed issues at higher rates⁹² indicates that this is not the full explanation.

The relationship between the Federal Circuit's nonobviousness rate in patent prosecution and the PTAB's rate also appears to confirm the winnowing hypothesis. The Federal Circuit's nonobviousness rate is significantly lower than the PTAB's.

With respect to indeterminacy, it is also worth considering the substantial difference in Federal Circuit nonobviousness reversal rates across the different validity contexts. The Federal Circuit reverses only 10% of appeals from the PTAB in patent prosecution, but holds nearly 50% of patent claims invalid for obviousness in infringement litigation.⁹³ There are several explanations that could explain the Cir-

⁹² J. Jonas Anderson & Peter S. Menell, *Informal Deference: A Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108 NW. U. L. REV. 1, 1 (2013); David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223, 223 (2008).

⁹³ The degree to which the rate is understated may not be very significant; most district court patent decisions appear to be appealed to the Federal Circuit. Ryan Holte & Christopher Seaman, *Injunctions on Appeal: An Empirical Study of the Federal Circuit's Application of eBay* (forthcoming).

cuit's apparent strong deference to or agreement with the PTO in patent prosecution decisions where the PTO concludes that an invention is obvious versus the Circuit's strong disagreement with PTO decisions that an invention is nonobviousness and entitled to a patent. Perhaps most significantly, patent prosecution is an *ex parte* proceeding, with only the patent applicant and the PTO providing arguments for the Circuit. In the infringement context, an adversarial party is not only present before the court to argue obviousness, but may also have introduced additional evidence of obviousness at trial.

There are alternative explanations for the variation in Federal Circuit nonobviousness decisions in the different contexts. The Federal Circuit may perceive that the PTO is more likely to erroneously grant a patent than it is to erroneously deny a patent. This possibility would be consistent with criticisms of the PTO as being too liberal in granting patents.⁹⁴ Selection effects may be contributing to the disparity. Parties challenging patents may be able to successfully identify questionable patents that are particularly susceptible to validity challenges. This possibility cannot explain the full effect, however, because most defendants in infringement lawsuits were unknowing infringers and did not choose to challenge the patent's validity prior to litigation.⁹⁵ In addition, third parties are expected to challenge valuable patents as well as weak patents.⁹⁶ The selection of patents for challenge based on their value is not likely to correlate with obviousness. The varying contexts do not allow us to parse which of these explanations is more accurate, or whether the outcomes result from some combination of these effects.

With regard to the potential differences between the prosecution and infringement contexts, it is worth noting the nearly identical rates of reversal between the PTAB's nonobviousness decisions in patent prosecution (37%) and district court decisions in infringement proceedings (42%). The former is based on appeals by the patentee because the PTO examiner concluded an invention was obvious; the latter is based on appeals by a third party where the PTO concluded that an invention was nonobvious. A simple explanation for the similarity of these results is a symmetrical indeterminacy in the nonobviousness requirement, with the PTO being perceived by the PTAB or district courts to have erred about 40% of the time. This suggests that the adversarial nature of infringement proceedings, as well as the potential introduc-

⁹⁴ See, e.g., Michael D. Frakes & Melissa F. Wasserman, *Does the U.S. Patent and Trademark Office Grant Too Many Bad Patents?: Evidence From A Quasi-Experiment*, 67 STAN. L. REV. 613, 615 (2015) (noting, "[m]any believe the root cause of the patent system's dysfunction is that the U.S. Patent and Trademark Office (PTO or Agency) is issuing too many invalid patents"); Mark A. Lemley & Bhaven Sampat, *Is the Patent Office a Rubber Stamp?*, 58 EMORY L.J. 181, 185 (2008) (explaining that there is a "widespread perception that the PTO is acting as a rubber stamp, regularly issuing bad patents that wind up imposing costs on others").

⁹⁵ Christopher Seaman, *Willful Patent Infringement and Enhanced Damages After In re Seagate: An Empirical Study*, 97 IOWA L. REV. 417, 441 (2012).

⁹⁶ Anup Malani & Jonathan S. Masur, *Raising the Stakes in Patent Cases*, 101 GEO. L.J. 637, 640 (2013) (stating "challengers tend to target holders of the most profitable and (and often most socially valuable) patents.").

tion of new evidence of obviousness, may not play that significant a role in nonobviousness decisions.

The PTAB, on the other hand, has an extraordinarily high reversal rate in inter partes review proceeding nonobviousness decisions (79%). This reversal rate is essentially identical to the 77% rate found in other studies that have examined inter partes reversal rates in general, not just nonobviousness decisions.⁹⁷ Some of the discrepancy between inter partes review and district court infringement rates may be due to the different burden of proof that is applied in the two contexts. Inter partes review requires proof of obviousness by a preponderance of the evidence, while establishing invalidity in an infringement proceeding requires clear and convincing evidence.⁹⁸ This difference, however, hardly seems capable of explaining the extent of the difference, particularly as the effect of differing burdens of proof is not clear.⁹⁹ The high rates of inter partes review reversals have led to significant critique of the PTAB, perhaps most famously including then-Federal Circuit Chief Judge Randall Rader referring to the PTAB as a ‘death squad’ for patents.¹⁰⁰

2. Are PTAB Administrative Judges Better Able to Judge Ordinary Skill in the Art?

The second nonobviousness challenge concerned the difficulty of making a judgment from another person’s perspective. Though everyone faces this challenge, it is possible that technologically sophisticated parties would be better able than scientifically lay individuals to make a judgment about whether a given invention would have been obvious to a person of ordinary skill in the art. Determining whether such an effect exists is difficult to evaluate because a greater ability to make a judgment from the perspective of a PHOSITA could lead to either a (more accurate) conclusion of obviousness or a (more accurate) conclusion of nonobviousness. That is, there is no way to know *ex ante* what relationship to expect between judgments by technologically sophisticated parties and scientifically lay individuals because we do not know in any given case whether an invention is actually obvious or nonobvious.

Some data that may shed light on this issue is a comparison of the correlation between PTAB and patent examiner decisions on the one hand, and the correlation between PTAB and federal judge decisions on the other. PTAB administrative judges and patent examiners are all technologically sophisticated parties.¹⁰¹ Most

⁹⁷ Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHI. L. REV. DIALOGUE 93, 94 (2014).

⁹⁸ 35 U.S.C. § 316(e); *Microsoft Corp. v. i4i Ltd. P’ship*, 564 U.S. 91, 91 (2011).

⁹⁹ Dorothy K. Kagehiro & W. Clark Stanton, *Legal vs. Quantified Definitions of Standards of Proof*, 9 LAW & HUM. BEHAV. 159, 163–73 (1985) (discussing an empirical study finding that different standards of proof produced similar jury verdicts).

¹⁰⁰ Peter J. Pitts, *‘Patent Death Squads’ vs. Innovation*, WALL ST. J. June 10, 2015, at A13.

¹⁰¹ Klimczak, *supra* note 84, at 316, 319; Guerrini, *supra* note 83, 3120 n.150.

federal judges are not.¹⁰² If technological sophistication has a significant effect on nonobviousness decisions, then we would expect there to be a high rate of correlation between technologically sophisticated parties and a lower rate of correlation when comparing a technologically sophisticated decision-maker to a lay decision-maker. What we find is just the opposite. There is a relatively weak correlation between patent examiner and PTAB decisions: the PTAB reverses 37% of patent examiner nonobviousness decisions and an extraordinary 79% of inter partes review challenged patents.¹⁰³ There is a strong correlation, however, between the Federal Circuit and PTAB nonobviousness decisions during patent prosecution: the Federal Circuit reverses only 10% of the PTAB's decisions here.

The data is inconsistent with the hypothesis that technological expertise has a significant effect on nonobviousness decisions, and therefore it is inconsistent with the hypothesis that technological expertise helps decision-makers reach significantly more accurate nonobviousness decisions. It is still possible that technological sophistication helps with the nonobviousness inquiry, but that this benefit is swamped by other effects in the data (such as indeterminacy, hindsight bias, and selection effects). Overall, it does not appear that technological sophistication significantly improves nonobviousness decisionmaking.

3. Hindsight Bias

Hindsight bias has been found to affect all decision-makers who attempt to judge an issue *ex ante* once they have *ex post* knowledge.¹⁰⁴ In the present circumstances, hindsight bias will tend to make inventions appear more obvious than they actually were at the time of filing. There is evidence, however, that decision-makers who are expert in a given field or familiar with the type of decision may suffer less of a hindsight bias.¹⁰⁵ If this effect manifests in nonobviousness decisions, then we would expect experts to tend to find inventions nonobvious more often than non-experts.

There is some evidence for this effect in the data. Most significantly, while the PTAB reached a conclusion of nonobviousness in patent prosecution appeals 37% of the time, the Federal Circuit only held claims nonobvious 10% of the time in such appeals.¹⁰⁶ However, as discussed above, there are winnowing and selection effects that may be affecting these results as well. Because patent applicants will only appeal contrary decisions, the pool of patent prosecution appeals that the Federal Circuit hears should include fewer close cases than the pool appealed to the PTAB. That being said, the PTAB's cases have already been appealed from a patent examiner. If we make the rough assumption of a similar winnowing effect at each

¹⁰² Klimczak, *supra* note 84, at 316, 319; Guerrini, *supra* note 83, 3120 n.150.

¹⁰³ *Supra* Table 1.

¹⁰⁴ *Supra* Part I.C.

¹⁰⁵ Christensen-Szalanski & Willham, *supra* note 51, at 155.

¹⁰⁶ *Supra* Table 1.

stage in the process, there still appears to be some additional effect at the Federal Circuit stage that could be due to a greater hindsight effect. This effect, however, could also be due to other factors, such as the types of selection effects described above or possibly Federal Circuit deference to PTAB decisions. Teasing apart the influences of these different effects is not possible with this dataset.¹⁰⁷

The patent invalidity challenge data is inconsistent with the hypothesis that decisionmaking expertise reduces the hindsight bias in nonobviousness decisions because the PTAB finds patents challenged in inter partes review to be obvious 79% of the time, while district court judges find them to be obvious just 42% of the time. As explained above, however, inter partes review has been particularly problematic for patentees, and there are likely other influences that are driving these results, making any comparison problematic.

C. Comparison with Prior Periods

Nonobviousness decisionmaking has been studied across other periods of time in various tribunals and these prior studies provide additional context for understanding the instant results. Table 3 displays the results of previous studies of nonobviousness decisions for time periods prior to the Supreme Court's decision in *KSR v. Teleflex*, and Table 4 displays the results for studies of nonobviousness decisions between *KSR v. Teleflex* and the AIA.

Tribunal	Proceeding	Authors	Time period	Nonobviousness rate
District Court & Federal Circuit	Infringement	Allison & Lemley ¹⁰⁸	1989-1996	64%
District Court	Infringement	McEldowney ¹⁰⁹	1995-2000	69%
District	Infringement	Mojibi ¹¹⁰	2004-2007	94%

¹⁰⁷ That the effect may be due to some deference does not mean that benefits of expertise and experience with respect to the hindsight bias are irrelevant. It is possible that the Federal Circuit defers to the PTAB because of the PTAB's perceived expertise.

¹⁰⁸ Allison, *supra* note 11, at 209 tbl.2.

¹⁰⁹ Sean M. McEldowney, *New Insights on the 'Death' of Obviousness: An Empirical Study of District Court Obviousness Opinions*, 2006 STAN. TECH. L. REV. 4, *32 tbl.2 (2006).

¹¹⁰ Ali Mojibi, *An Empirical Study of the Effect of KSR v. Teleflex on the Federal Circuit's Patent*

Court				
Federal Circuit	Prosecution	Petherbridge & Wagner ¹¹¹	1990-2005	31%
Federal Circuit	Prosecution	Rantanen ¹¹²	1997-2007	17%
Federal Circuit	Prosecution	Cotropia ¹¹³	2002-2005	8%
Federal Circuit	Infringement	Petherbridge & Wagner ¹¹⁴	1990-2005	~50% ¹¹⁵
Federal Circuit	Infringement	Cotropia ¹¹⁶	2002-2005	56%
Federal Circuit	Infringement	Rantanen ¹¹⁷	1997-2007	57%

Table 3. Pre-KSR v. Teleflex Nonobviousness Studies

Tribunal	Proceeding	Authors	Time period	Nonobviousness rate
Federal Circuit	Prosecution	Nock & Gaddie ¹¹⁸	2007-2009	0%

Validity Jurisprudence, 20 ALB. L.J. SCI. & TECH. 559, 583 fig.2 (2010).

¹¹¹ Lee Petherbridge & R. Polk Wagner, *The Federal Circuit and Patentability: An Empirical Assessment of the Law of Obviousness*, 85 TEX. L. REV. 2051, 2081–82 (2007).

¹¹² Jason Rantanen, *The Federal Circuit's New Obviousness Jurisprudence: An Empirical Study*, 16 STAN. TECH. L. REV. 709, 737 tbl.1 (2013).

¹¹³ Christopher A. Cotropia, *Nonobviousness and the Federal Circuit: An Empirical Analysis of Recent Case Law*, 82 NOTRE DAME L. REV. 911, 937 (2007).

¹¹⁴ Petherbridge & Wagner, *supra* note 111; at 2081–82.

¹¹⁵ Petherbridge's and Wagner's article does not directly report this rate, but it can be approximately deduced from the data that is reported. *Id.*

¹¹⁶ Cotropia, *supra* note 113, at 934.

¹¹⁷ Rantanen, *supra* note 112, at 738.

¹¹⁸ Jennifer Nock & Sreeker Gaddie, *Raising the Bar for Nonobviousness: An Empirical Study of Federal Circuit Case Law Following KSR*, 20 FED. CIR. B.J. 369, 404 (2011).

Federal Circuit	Prosecution	Rantanen ¹¹⁹	2007-2012	4%
District Court	Infringement	Mojibi ¹²⁰	2007-2009	59%
Federal Circuit	Infringement	Nock & Gaddie ¹²¹	2007-2009	45%
Federal Circuit	Infringement	Rantanen ¹²²	2007-2012	43%

Table 4. Post-KSR v. Teleflex Nonobviousness Studies

For patent prosecution validity appeals from the PTO in the decade prior to *KSR v. Teleflex*, the Federal Circuit reversed the PTO's conclusion of obviousness in about 8% to 17% of cases.¹²³ The Federal Circuit became more deferential in the five years subsequent to *KSR*, reversing the PTO in just 4% of cases. The present study indicates that, subsequent to the AIA, the Federal Circuit appears to have loosened the reins slightly again, returning to the pre-*KSR* rate of reversing about 10% of PTO decisions to hold an invention nonobvious.

Patent infringement decisions display a similar *KSR* effect. The Federal Circuit upheld patents as nonobvious in about 57% of infringement cases in the decade prior to *KSR v. Teleflex*, and became significantly more stringent following *KSR*, upholding patents in 43% of cases.¹²⁴ The data in the current study indicates that the Federal Circuit appears to be drifting back to its pre-*KSR* nonobviousness rate in validity challenges in infringement proceedings as well. Over the past three years, the Federal Circuit has held patents to be nonobvious in 54% of such cases. In each context, the Federal Circuit's reaction to *KSR* appears to have dissipated subsequent to the AIA.

District court nonobviousness decisions follow a different pattern than the Federal Circuit. District courts upheld patents as nonobvious in some 69–94% of cases prior to *KSR*, and then dropped down to a rate of 59% following the Supreme Court's decision.¹²⁵ This rate appears to have held subsequent to the AIA, standing

¹¹⁹ Rantanen, *supra* note 112, at 737 tbl.1.

¹²⁰ Mojibi, *supra* note 110, at 583 fig.2.

¹²¹ Nock & Gaddie, *supra* note 118, at 395.

¹²² Rantanen, *supra* note 112, at 737 tbl.1.

¹²³ *Supra* Table 3.

¹²⁴ *Supra* Table 3, Table 4.

¹²⁵ *Supra* Table 3, Table 4.

at 58% in the instant study. Unlike the Federal Circuit, *KSR* appears to have had a longer term impact on district court nonobviousness decisions.

The data from the prior studies is also consistent with the results of the present analysis in indicating that the Federal Circuit is much more deferential to the PTO in patent prosecution appeals than it is in infringement cases. Patent applicants rarely succeed in challenging the PTO's nonobviousness decision before the Federal Circuit. Accused infringers, on the other hand, have significant success in convincing the Federal Circuit that the PTO erred in granting the patent at issue.

V. Conclusion

The data presented here paint a challenging picture for nonobviousness decisions. The results indicate a highly indeterminate standard based on the significant rates of disagreement across the various tribunals. In addition, the data does not support the hypothesis that technologically sophisticated decision-makers are better able to make judgements from the perspective of a person of ordinary skill in the art. Finally, the analysis provides potential support for the possibility that technologically trained individuals may experience slightly less of a hindsight bias than untrained decision-makers. Because it is not possible to know whether any given invention is actually nonobvious, however, we cannot reach definitive conclusions on these matters.

