BALANCING INTERESTS POST-HALO: A PROPOSAL FOR CONSTITUTIONALLY BOUNDED ENHANCED DAMAGES IN PATENT INFRINGEMENT

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Rejecting the "unduly rigid" *Seagate* standard for enhanced damages in willful infringement, the Supreme Court issued a unanimous decision in *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, and the consolidated *Stryker Corp. v. Zimmer, Inc.*, that is widely considered an enhanced damages victory for patent owners. The ruling, obviating *Seagate*'s "objective recklessness" prong of the two-part enhanced damages test and lowering the burden of proof for showing willfulness to a preponderance of the evidence, moves favorability of willfulness investigations away from alleged infringers and closer to the patentee-favorable standards of the pre-1986 affirmative duty of care rule.²

The Supreme Court, however, in striking down the *Seagate* test, has left a void for when exactly enhanced damages should be awarded. The only guidance provided includes punitive language that reprimands actions that are "willful, wanton, malicious . . . characteristic of a pirate," leaving uncertainty in the new willfulness standard.³

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- 1. See, e.g., Greg Stohr, U.S. Supreme Court Eases Way for Larger Patent Damage Awards, BLOOMBERG (June 13, 2016), http://www.bloomberg.com/politics/articles/2016-06-13/u-s-supreme-court-eases-way-for-larger-patent-damage-awards [https://perma.cc/F8MY-TN9P]; Brent Kendall, Top Court Eases Way for Patent Damages, WALL St. J., June 13, 2016, at B14.
- 2. The 1983 decision *Underwater Devices Inc. v. Morrison-Knudsen Co., Inc.*, 717 F.2d 1380, 1389 (Fed. Cir. 1983), placed an affirmative duty upon an alleged infringer to exercise due care to ensure the infringer was not infringing. This affirmative duty included "the duty to seek and obtain competent legal advice from counsel before the initiation of any possible infringing activity." *Id.*
- 3. In a unanimous opinion by Chief Justice Roberts, *Halo* abrogated the 2007 *Seagate* two pronged willfulness standard, replacing it with a totality of the circumstances test and lowering the burden of proof from clear and convincing proof to a "preponderance of the evidence," in line with other patent infringement standards. Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1926 (2016).

With the independent objective recklessness element of the *Seagate* test officially struck down, the question of willful infringement no longer begins with the judge as a question of law. Despite the new abilities for patent owners to present cases of willfulness in front of juries, the new test for willfulness is not necessarily a hunting license for patent owners, nor does it guarantee multiplied damages. Justice Breyer, joined by Justices Kennedy and Alito, attempted to elucidate the limits of enhanced awards in his concurrence, highlighting the importance of promoting "uniformity in [the application of 35 U.S.C. § 284] and maintaining its consistency with the basic objectives of patent law."

Part I of this Note discusses the history of willful infringement and the role of enhanced damages in enforcing patent rights. Part II explores the implementation and consequences of the *Halo* decision as a result of Chief Justice Roberts' retributivist language and emphasis of 35 U.S.C. § 284 as a punitive regime. Part III balances the *Halo* decision with traditional justifications for patent rights and enhanced damages, seeking to use Justice Breyer's guidance on limitations as a reconciling construct. Part IV concludes with a recommendation for an enhanced damages framework moving forward.

I. A HISTORY OF PATENT RIGHTS AND WILLFUL INFRINGEMENT

This Part will detail the history of patent rights and patent enforcement leading up to *Halo*, as well as the policy concerns cited in the history of Federal Circuit and Supreme Court rulings.

A. THE CONSTITUTION AND EARLY INFRINGEMENT REMEDIES

Article I of the U.S. Constitution empowers Congress to create laws "to promote the Progress of Science and useful Arts." Among the rights created are patent protection rights and associated damages, further enumerated in the United States Code. Out of this framework, Congress enacted the Patent Act of 1790, which first enumerated the damages a

^{4.} Brian E. Ferguson, *So Long, Seagate: A New Test for Willful Patent Infringement*, LAW360 (June 14, 2016), https://www.law360.com/articles/771835/so-long-seagate-a-new-test-for-willful-patent-infringement [https://perma.cc/4K7H-V2TG].

^{5.} *Halo Elecs.*, 136 S. Ct. at 1936; *see* U.S. CONST. art. I, § 8, cl. 8 (defining the basic objectives of patent law as "promot[ing] the Progress of Science and useful Arts").

^{6.} U.S. CONST. art. I, § 8, cl. 8.

^{7.} See generally 35 U.S.C. §§ 101-390 (2012).

patentee could obtain upon a finding of infringement. ⁸ Just three years later, the Act was revised in the Patent Act of 1793, which authorized treble damages awards for patent infringement. ⁹ Such trebling was solidified in the Patent Act of 1800, though with an emphasis on actual damage to the patentee by narrowing the language from trebling the price of the infringed product to trebling the "actual damages" the patentee suffered. ¹⁰

Until 1819, circuit court remedies were limited to monetary awards.¹¹ Granting power to the circuit courts to establish a remedy at equity, the Patent Act of 1819 detailed the first mention of an injunction available to patentees.¹² This additional remedy enabled courts to find a balance in appropriate damages, to intervene directly to halt infringement, and to limit

[I]f any person shall make, devise, and use or sell a thing so invented, the exclusive right of which has been secured to any person by patent, without the consent of the patentee . . . the person so offended shall forfeit and pay to the patentee a sum that shall be at least equal to three times the price for which the patentee had usually sold or licensed to other persons the use of said invention.

Id.

- 10. Patent Act of 1800, ch. 25, § 3, 2 Stat. 37, 38 (repealed 1836). The Patent Act of 1800 stipulated that an infringer must "forfeit and pay to the patentee a sum equal to three times the actual damages sustained by such patentee." *Id*.
- 11. See generally Patent Act of 1790, 1 Stat. 109-12 (1790) (repealed 1793) (establishing remedies for patent infringement); Patent Act of 1793, 1 Stat. 318-23 (1793) (repealed 1836) (creating the first instance of treble damages for patent infringement); Patent Act of 1800, ch. 25, § 3, 2 Stat. 37, 38 (repealed 1836) (modifying the treble damages established in 1793).
- $1\overline{2}$. Patent Act of 1819, ch. 19, § (c), 3 Stat. 481 (amending the 1800 Act). The Patent Act of 1819 stated:

[T]he Circuit Courts of the United States shall have original cognizance, as well in equity as at law, of all actions, suits, controversies, and cases arising under any law of the United States, granting or confirming to authors or inventors the exclusive right to their respective writings, inventions, and discoveries, and upon any bill in equity, filed by any party aggrieved in any such cases, shall have authority to grant injunctions, according to the course and principles of courts of equity, to prevent the violation of the rights of any authors or inventors secured to them by any law of the United States, on such terms and conditions as the said courts may deem fit and reasonable.

^{8.} Patent Act of 1790, § 4, 1 Stat. 109–12 (1790) (repealed 1793). The Patent Act of 1790 specified that, upon a finding of infringement, the infringer must "forfeit and pay to the patentee such damages as should be assessed by a jury, and moreover, to forfeit to the person aggrieved the infringing machine." *Id*.

^{9.} Patent Act of 1793, ch. 11, § 5, 1 Stat. 318-23 (1793) (repealed 1836). The 1793 Act, straying from "damages," provided that:

the instances in which enhanced damages were necessary. ¹³ In 1836, Congress began detailing the discretion of the court to award enhanced damages, the evolution of which culminated in the Patent Act of 1952, which included 35 U.S.C. § 284—the foundation for damages law as it stands today, wherein the court "*may* increase damages up to 3 times the amount found or assessed." ¹⁴

B. A HISTORY OF PATENT ENFORCEMENT AND WILLFULNESS

Patent infringement damages are detailed within 35 U.S.C. § 284, which states that courts "shall award the claimant damages . . . [not] less than a reasonable royalty." A ruling of patent infringement therefore creates a presumption of damages in favor of the plaintiff. Considered a type of strict liability offense, accidental patent infringement does not absolve an infringer of liability. As discussed above, courts "may increase damages up to three times the amount found or asserted" in cases of bad faith or willfulness. Since the Federal Circuit's *Underwater Devices Inc. v. Morrison-Knudsen Co.* decision in 1983, willfulness has largely been seen as a prerequisite for enhanced damages.

Enhanced damages have not always been equally easy to obtain, nor have remedies at law and equity always summed to an equal balance, wherein declines in remedies at equity correspond inversely with monetary

^{13.} See Jon E. Wright, Willful Patent Infringement and Enhanced Damages—Evolution and Analysis, 10 Geo. MASON L. Rev. 97, 99–100 (2001–2002); Mark Schankerman & Suzanne Scotchmer, Damages and Injunctions in Protecting Intellectual Property, 32 RAND J. ECON. 199, 199–202 (2001).

^{14.} Patent Act of 1952, ch. 950, § 284, 66 Stat. 792 (1952) (repealed by Act No. 83 of 1990) (emphasis added); *see generally* Patent Act of 1836 § 14, ch. 357, 5 Stat. 117 (1836) (creating the PTO) (repealed 1952); Patent Act of 1870, ch. 230, 16 Stat. 198–217 (1870) (repealed 1952) (consolidating and revising existing patent statutes); Patent Act of 1922, ch. 58, 42 Stat. 389-92 (1922) (repealed 1952) (amending the Patent Act to include reasonable royalty estimates of damages); Patent Act of 1946, Pub. L. No. 79-587, 60 Stat. 778 (1946) (repealed in 1952) (abrogating the infringer's profits remedy from patent damages).

^{15. 35} U.S.C. § 284 (2012) (emphasis added).

^{16.} Dow Chem. Co. v. Mee Indus., Inc., 341 F.3d 1370, 1381–82 (Fed. Cir. 2003).

^{17.} See Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512, 1523 (Fed. Cir. 1995) (applying tort principles to patent infringement to explore and fill the "gap" on tortious intent); Saurabh Vishnubhakat, *An Intentional Tort Theory of Patents*, 68 FLA. L. REV. 573, 598–607 (2016).

^{18. 35} U.S.C. § 284 (2012) (emphasis added).

^{19.} Graco, Inc. v. Bink's Mfg. Co., 60 F.3d 785, 792 (Fed. Cir. 1995) ("Willfulness of the infringement is the sole basis for the court's exercise of its discretion to enhance damages under 35 U.S.C. § 284 (1988)."); Underwater Devices Inc. v. Morrison-Knudsen Co., Inc., 717 F.2d 1380, 1380 (Fed. Cir. 1983).

damages awarded, and vice versa. Courts awarding enhanced damages have therefore sought to achieve appropriate enhanced awards, with the "pendulum" of enhancement swinging back and forth between favoring patent holders and alleged infringers.²⁰

In light of this, the Federal Circuit has repeatedly attempted to identify an appropriate damages test to work in concert with remedies at equity. The Federal Circuit noted that, despite the availability of injunctions after 1819, remedies at equity were rarely granted for many classes of patent holders, leading to a general undermining of and "lowered respect" for the string of Patent Acts until the formation of the Federal Circuit in 1982.²¹

Combatting the disregard for patent rights and seeking an equilibrium between protecting patent rights via monetary and equitable remedies and encouraging innovation, the Federal Circuit issued its 1983 *Underwater Devices* opinion, imposing an affirmative duty of care on those who were put on notice of others' patent rights. While the duty created the "advice of counsel" defense, it also produced an adverse inference under which any party that did not obtain a letter from "competent legal . . . counsel *before* the initiation of any possible infringing activity" presumably did so because such an opinion would have suggested infringement. A defendant's reliance on advice of counsel was evaluated on a reasonableness standard. Adding to the analysis of willfulness, the Federal Circuit's 1986 *Bott*

^{20.} Nika F. Aldrich, *The Patent Pendulum May Be Poised to Swing Back*, SCHWABE, WILLIAMSON & WYATT (Mar. 4, 2016), http://www.schwabe.com/newsroompublications-14503 [https://perma.cc/BB6G-MMRG].

^{21.} Fromson v. W. Litho Plate & Supply Co., 853 F.2d 1568, 1574 (Fed. Cir. 1988). The court stated:

[[]H]istorically, the [hypothetical negotiation/reasonable royalty] methodology has been problematic as a mechanism for doing justice to individual, non-manufacturing patentees. Because courts routinely denied injunctions to such patentees, infringers could perceive nothing to fear but the possibility of a compulsory license at a reasonable royalty, resulting in some quarters in a lowered respect for the rights of such patentees and a failure to recognize the innovation-encouraging social purpose of the patent system. Thus a cold, 'bottom line' logic would dictate to some a total disregard of the individual inventor's patent

Id.; see *In re* Seagate Tech. LLC, 497 F.3d 1360, 1369 (Fed. Cir. 2007) (en banc) (Newman, J., concurring) (quoting Knorr-Bremse Sys. Fuer Nutzfahrzeuge GmbH v. Dana Corp., 383 F.3d 1337, 1343 (Fed. Cir. 2004) (en banc)) (noting a "widespread disregard of patent rights [that] was undermining the national innovation incentive").

^{22.} *Underwater Devices*, 717 F.2d at 1389–90.

^{23.} *Id.*; Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 1579 (Fed. Cir. 1986) (quoting *Underwater Devices*, 717 F.2d at 1389–90).

^{24.} Seagate, 497 F.3d at 1369.

decision, later augmented by *Read Corp. v. Portec, Inc.*, enumerated three, tort-based factors to consider in determining whether an infringer had acted willfully.²⁵

Though intended to eliminate wanton indifference towards patent rights, the adverse inference rule had several undesirable and unintended consequences. ²⁶ First, it enabled patent holders to hamstring competitors by sending multitudes of infringement notices, despite having conducted little infringement analysis. ²⁷ The alleged infringer, now "on notice" of the accused infringement, was forced to obtain advice of counsel on each asserted patent for fear of a presumption of willfulness at trial. ²⁸ For a small company, the cost of obtaining advice of counsel on such a scale was almost surely devastating. ²⁹ Second, companies became unwilling to research patents that existed within their own industry, knowing that unearthing such patents would require a corresponding opinion of counsel should litigation arise. ³⁰ Finally, the move "effectively shift[ed] the burden of proof on the issue of willfulness from the patentee to the infringer."³¹

Seeking to reverse the side effects of *Underwater Devices* and its progeny, the Federal Circuit issued a decision in *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.* that repealed the adverse inference rule.³² Later codified by Congress in 35 U.S.C. § 298, the decision noted that companies had a vested interest in not disclosing opinions of

^{25.} Bott v. Four Star Corp., 807 F.2d 1567, 1572 (Fed. Cir. 1986); see also Read Corp. v. Portec, Inc., 970 F.2d 816, 827–28 (Fed. Cir. 1992) ("Use of these [nine] factors in patent cases is in line with punitive damage considerations in other tort contexts."). The nine factors relevant to the willfulness inquiry include: (1) whether the infringer deliberately copied the ideas or design of another; (2) whether the infringer, when he knew of the other's patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed; (3) the infringer's behavior as a party to the litigation; (4) the defendant's size and financial condition; (5) closeness of the case; (6) duration of the defendant's misconduct; (7) remedial action by the defendant; (8) the defendant's motivation for harm; and (9) whether the defendant attempted to conceal its misconduct. *Id.* The first three factors are original to *Bott*, and the remaining six were added in *Read Corp*.

^{26.} See Seagate, 497 F.3d at 1385 (Newman, J., concurring).

^{27.} See id.

^{28.} See id.

^{29.} See Charles Mokriski & Elizabeth A. Alquist, Dead or Alive: Adverse Inference After Knorr-Bremse, INTELL. PROP. TODAY, Nov. 2004, at 12–13.

^{30.} FED. TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY 29 (2003).

^{31.} Knorr-Bremse Sys. Fuer Nutzfahrzeuge GmbH v. Dana Corp., 383 F.3d 1337, 1349 (Fed. Cir. 2004).

^{32.} Id. at 1341.

counsel in order to maintain attorney-client privilege.³³ These concerns about privilege were realized in the aftermath of the Federal Circuit's controversial opinion in *EchoStar*, which held that a defendant who relied upon advice of in-house counsel in a patent infringement suit had waived its privilege with respect to that same subject matter for all counsel, including outside counsel not involved in the initial advice.³⁴ Some courts saw *EchoStar* as a broad waiver once a company relied upon an opinion of counsel, in order to prevent companies from shopping opinions until a favorable one was acquired.³⁵ Other courts read *EchoStar* more narrowly, disfavoring such broad waiver implications.³⁶

This disparity was remedied in *In re Seagate Technologies LLC*, the Federal Circuit's 2007 decision that set a new standard for willfulness.³⁷ Restating, "there is no affirmative obligation to obtain advice of counsel," the Federal Circuit promulgated a two-part test that asked first if a company had been objectively reckless in its infringement, and second if the company had subjective knowledge of its infringement.³⁸ The court further declared that disclosure of opinions of counsel did not waive attorney-client privilege of trial counsel.³⁹

The *Seagate* decision, therefore, resolved the issue of waiver, but it created new problems in its wake. Since companies were held to an objective recklessness standard in the first prong of willful analysis, a company could, despite bad faith at the inception of infringement, assert an objectively reasonable defense at trial to escape a finding of willfulness. Further exacerbating the issue was the Federal Circuit's 2012 decision, *Bard Peripheral Vascular, Inc. v. W.L. Gore Associates, Inc.*, ruling that the objectiveness prong was a question of law to be decided by a judge. ⁴¹ The

^{33.} Id. at 1344.

^{34.} *In re* EchoStar Commc'ns. Corp., 448 F.3d 1294, 1299 (Fed. Cir. 2006).

^{35.} See Informativa Corp. v. Bus. Objectives Data Integration, Inc., 454 F. Supp. 2d 957, 965 (N.D. Cal. 2006) ("Under the analysis in *EchoStar*, it is immaterial whether BODI's opinion counsel at trial are from the same firm, different firms or are even the same person.").

^{36.} See Ampex Corp. v. Eastman Kodak Co., No. CIV A. 04-1373-KAJ, 2006 WL 1995140, *3 (D. Del. July 17, 2006) ("[T]he *EchoStar* court's use of the word 'such' to modify the phrase 'communications regarding the same subject matter' indicates that the Court intended a far more limited meaning for its statement than Ampex wishes to give it.").

^{37.} In re Seagate Tech. LLC, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc).

^{38.} Id.

^{39.} Id. at 1373.

^{40.} Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1932–33 (2016).

^{41.} Bard Peripheral Vascular, Inc. v. W.L. Gore Assocs., Inc., 682 F.3d 1003, 1006-07 (Fed. Cir. 2012).

result was that incriminating evidence of willfulness was hidden from the jury if the infringer could assert a reasonable defense before the judge. Thus, the most blameworthy actors were incentivized to use legal creativity to skirt enhanced damages at trial.⁴²

C. PREVIEWING *HALO*—TOTALITY OF THE CIRCUMSTANCES AND REASONABLE DEFENSES

Over time, *Seagate* became out-of-step with other changes to the patent infringement landscape, both in how it analyzed willfulness and in its standard of review.

In two 2014 cases, *Octane Fitness, LLC v. ICON Health & Fitness, Inc.* and *Highmark Inc. v. Allcare Health Management System, Inc.*, the Supreme Court abrogated the requirement that for attorney's fees a party prove by clear and convincing evidence that the litigation was both objectively baseless and conducted in bad faith.⁴³ They instead replaced the analysis with a "totality of the circumstances" test based on a preponderance of the evidence standard, giving district courts broader discretion.⁴⁴ Additionally, the Court declared that decisions based on the new test would be reviewed for abuse of discretion, further contrasting the former, overruled test, which permitted *de novo* review by the Federal Circuit.⁴⁵

In 2015, the Supreme Court issued another decision, *Commil USA, LLC v. Cisco Systems, Inc.*, that gave hints that *Seagate*'s days were numbered, stating that induced liability infringement defenses no longer allow for a "reasonable defense" escape at trial. ⁴⁶ Echoing concerns that the most culpable willful infringers were dodging liability through legal ingenuity alone, the *Commil* decision closed a loophole about which plaintiffs frequently complained. ⁴⁷ However, the decision created immediate discord with the knowledge and intent requirements within the willful infringement

^{42.} Dorothy Auth, Supreme Court Reinvigorates Effectiveness of Obtaining an Opinion of Counsel to Defend Against Potential Enhanced Damages for Willful Infringement in Halo Elecs., CADWALADER (July 21, 2016), http://www.cadwalader.com/resources/clients-friends-memos/supreme-court-reinvigorates-effectiveness-of-obtaining-an-opinion-of-counsel-to-defend-against-potential-enhanced-damages-for-willful-infringement-in-halo-electronics [https://perma.cc/55PX-4FK8].

^{43.} See Octane Fitness, LLC v. ICON Health & Fitness, Inc., 134 S. Ct. 1749, 1758 (2014); Highmark Inc. v. Allcare Health Mgmt. Sys., Inc., 134 S. Ct. 1744, 1746–47 (2014).

^{44.} Octane Fitness, 134 S. Ct. at 1758; Allcare Health Mgmt., 134 S. Ct. at 1746–47.

^{45.} Octane Fitness, 134 S. Ct. at 1758; Allcare Health Mgmt., 134 S. Ct. at 1746–47.

^{46.} Commil USA, LLC v. Cisco Sys., Inc., 135 S. Ct. 1920, 1928 (2015).

^{47.} See id. at 1929-30.

regime.⁴⁸ This was because the "willful blindness" standard for proving induced infringement became higher than the recklessness standard of the willfulness test, though intuitively, a finding of willfulness should demand more culpable conduct that induced infringement. A finding of induced infringement, therefore, could necessitate a finding of willfulness.⁴⁹

II. HALO ELECTRONICS V. PULSE ELECTRONICS & AFTERMATH

This Part will discuss the effects and ongoing implications of the *Halo* decision. First, this Pection will discuss the policy concerns and related Supreme Court decisions leading up to *Halo*. Next, it will address the tension between utilitarian and retributivist themes penned by Justice Breyer and Chief Justice Roberts, respectively. Finally, it will address the implementation of *Halo* in district courts.

A. HALO V. PULSE & STRYKER V. ZIMMER

The first action in the consolidated cases on review, *Halo*, details Pulse's alleged willful infringement of Halo's patents for electronic packages with surface-mounted transformers on circuit boards. ⁵⁰ Halo sent Pulse two letters in 2002 suggesting a license for the patents at issue. ⁵¹ Pulse ignored the licensing requests after one of its engineers determined that Halo's patents were invalid. ⁵² In 2007, Halo brought suit against Pulse, and a jury ruled that Pulse had infringed the patents, likely willingly. ⁵³ The district court declined to award enhanced damages after it determined that Halo's defenses at trial were not "objectively baseless." ⁵⁴ The Federal Circuit affirmed the district court's decision under *Seagate*'s framework. ⁵⁵

In the second action in the consolidated cases on review, *Stryker*, the plaintiff brought suit against Zimmer for patent infringement pertaining to pulsed lavage device technology used in surgeries.⁵⁶ After a jury found that Zimmer "all-but instructed its design team to copy Stryker's products," and therefore willfully infringed, the district court trebled the total damages,

^{48.} See Jonathan A. Choa, Commil v. Cisco Systems: The End of Induced Infringement?, 27 INTELL. PROP. LITIG. 35, 37 (2015).

^{49.} Id.

^{50.} Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1930–31 (2016).

^{51.} *Id*.

^{52.} Id.

^{53.} Id.

^{54.} *Id*.

^{55.} Id.

^{56.} *Id*.

granting Stryker over \$228 million in total award.⁵⁷ The Federal Circuit, reviewing *de novo*, vacated the treble award on the grounds that Zimmer had asserted objectively reasonable defenses at trial.⁵⁸

Citing comparisons to Octane Fitness and Highmark and the need to punish the most culpable actors, Chief Justice Roberts issued a unanimous opinion striking down the Seagate standard for willfulness. The Court replaced Seagate with a totality of the circumstances test, under which a plaintiff may prove willfulness by a preponderance of the evidence, and post hoc defenses of invalidity are no longer a basis for eschewing liability.⁵⁹ Noting that Seagate "impermissibly encumber[ed] the statutory grant of discretion to district courts," as provided by 35 U.S.C. § 284, Chief Justice Roberts stated that enhanced damages should only be meted out in "egregious" cases of conduct—that is, actions that are "willful, wanton, malicious, bad-faith, deliberate, consciously wrong, flagrant or—indeed characteristic of a pirate."60 In this sense, the new test for imposing enhanced damages contains two parts, the first evaluating the totality of the circumstances to decide the issue of "willfulness" and the second examining the egregiousness of the infringer's conduct to determine whether enhancing damages is appropriate.⁶¹ At its core, the test first asks, "Was the conduct willful?"; it then asks, "Was the willful conduct egregious?"

The Court also abrogated the tripartite review system, under which the objective recklessness prong of *Seagate* was reviewed *de novo*, the subjective prong for substantial evidence, and the decision to award enhanced damages for abuse of discretion. ⁶² Under the new test, the district court's assessment of the totality of the circumstances is reviewed exclusively for abuse of discretion. ⁶³

1. Policy Considerations

Beyond the discord with other aspects of patent law, the Court considered independent policy concerns in its *Halo* decision that were highlighted in various amicus briefs.

^{57.} Id.

^{58.} Id.

^{59.} Id. at 1925.

^{60.} Id. at 1932.

^{61.} *Id.* at 1927. Chief Justice Roberts wrote that a "totality of the circumstances" test to determine willfulness "allows district courts to punish the full range of culpable behavior," but adds that the egregiousness of defendant's conduct should govern who, in practice, receives such punishment. *Id.* at 1933–34.

^{62.} Id. at 1930.

^{63.} Id. at 1927.

Briefs in favor of respondents—perhaps more typically authored by "routine" defendants (e.g., Intel Corp., Hewlett Packard, etc.)—and briefs in favor of neither party generally supported the existing *Seagate* framework as an appropriate standard for willfulness.⁶⁴ These briefs argued that the predictability of the *Seagate* test, combined with the reality that willfulness is asserted in 80–90 percent of all patent cases, make the *Seagate* standard a satisfactorily high bar to prevent excessive damages.⁶⁵

Petitioners and their amici however, believed the *Seagate* bar was set too high, flatly ignoring the culpability of some of the most egregious willful infringers. ⁶⁶ Noting that the *Seagate* standard of willfulness overlooks the infringer's state of mind *at the time of infringement*, the United States on behalf of petitioners wrote, "when a person engages in unlawful conduct under circumstances that would otherwise support an inference of bad faith, his subsequent development of a reasonable but unsuccessful defense to liability does not negate that inference." ⁶⁷

The dueling amici reveal the tension between the desire to punish the worst offenders and the concern about opening the floodgates to unpredictable damages rulings.⁶⁸ Chief Justice Roberts, attempting to

^{64.} See, e.g., Brief for Intel Corp. et al. as Amici Curiae Supporting Respondents at *3–6, Halo Elecs., Inc. v. Stryker Elecs., Inc., 136 S. Ct. 1923 (2016) (Nos. 14-1513, 14-1520) (noting that Congress "implicitly endorsed" Seagate in the Leahy-Smith America Invents Act, and stating the need for predictability in patent litigation over an "unpredictable" totality of the circumstances approach); Brief for Intellectual Property Owners Ass'n. as Amicus Curiae Supporting Neither Party at *3, Halo Elecs., Inc. v. Stryker Elecs., Inc., 136 S. Ct. 1923 (2016) (Nos. 14-1513, 14-1520) ("IPO believes [the Seagate standard] is the appropriate standard for determining willful infringement.").

^{65.} See Brief for Intel Corp. et al. as Amici Curiae Supporting Respondents at *18, Halo Elecs., Inc. v. Stryker Elecs., Inc., 136 S. Ct. 1923 (2016) (Nos. 14-1513, 14-1520) (citing Kimberly A. Moore, *Empirical Statistics on Willful Patent Infringement*, 14 FED. CIR. B.J. 227, 232 (2004); Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421, 1440–42 (2009)).

^{66.} See, e.g., Reply Brief for the Petitioners at *8, Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923 (2016) (No. 14-1520) ("The court of appeals has adopted a test for willfulness that excludes intentional infringement, deems post hoc defenses sufficient to bar enhanced damages, and reserves for itself de novo review of reasonableness of the defenses. The net result is that the Federal Circuit currently allows most highly culpable infringers to evade enhanced damages."); Brief for United States as Amicus Curiae Supporting Petitioners at 23–24, Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923 (2016) (Nos. 14-1513, 14-1520) ("The defendant's assertion at trial of an objectively reasonable defense to liability should not categorically preclude an award of enhanced damages.").

^{67.} Brief for United States as Amicus Curiae Supporting Petitioners at *25, Halo Elecs., Inc. v. Stryker Elecs., Inc., 136 S. Ct. 1923 (2016) (Nos. 14-1513, 14-1520).

^{68.} Compare id., with Brief for Intel Corp., supra note 65, at *3-13 ("routine" defendants Intel, Hewlett Packard, and Medtronic fearing greater exposure to enhanced

assuage the respondents' fears that the *Seagate* abrogation will lead to excessive frequency of willfulness claims and thereby "embolden [patent] trolls," noted that enhanced damages should not be awarded in "gardenvariety cases." Justice Breyer similarly stressed that district courts should award enhanced damages with "careful application." Practically speaking, however, many argue that these limitations merely pay lip service to the respondents' fears.

2. Although Unanimous, the Halo Decision Reveals a Split Between Retributivism and Utilitarianism Justifications for Treble Damages

The language of the *Halo* decision does not merely create a new rule for willfulness but also reflects the Supreme Court's interpretation of patent rights. Chief Justice Roberts, acknowledging the "careful balance between the need to promote innovation and patent protection," nonetheless rejects wholesale the need for "artificial construct[s] such as the *Seagate* test." He additionally rejects utilitarian arguments for enhanced damages, stating that such damages are "designed as a 'punitive' or 'vindictive' sanction for egregious infringement behavior." This retributivist stance is not new, as the Supreme Court had previously described treble awards in an 1888 opinion as an ability for courts to "inflict vindictive or punitive damages" in cases where "the circumstances . . . appear to require it."

Conversely, Justice Breyer's concurrence, though incorporating some of Chief Justice Roberts' retributivist language, focuses on the "limits" of district court discretion in a much more utilitarian manner. ⁷⁵ Positing that enhanced damages, if too readily awarded, may chill even lawful innovation, Justice Breyer suggests that treble damages should play only a

damages threats, and petitioners and those supporting petitioners seeking to lower the bar to introduction of willfulness evidence).

^{69.} Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1935 (2016).

^{70.} *Id.* at 1938.

^{71.} See, e.g., Bonnie Eslinger, High Court's Ruling Aids Patent Trolls, Lobbyists Say, LAW360 (June 16, 2016, 3:42 PM), https://www.law360.com/articles/807297/high-court-s-ruling-aids-patent-trolls-lobbyists-say [https://perma.cc/W39N-VPSF]. Lobbyists for Google, Amazon, and Cisco remain concerned regarding the increased ease with which patent trolls (non-practicing entities) can be awarded enhanced damages, and have urged Congress to undertake patent damages reform. *Id*.

^{72.} Halo Elecs., 136 S. Ct. at 1935.

^{73.} Id. at 1932.

^{74.} Tilghman v. Proctor, 125 U.S. 136, 143-44 (1888).

^{75.} Halo Elecs., 136 S. Ct. at 1936–38.

small role in deterring potentially infringing actions.⁷⁶ Justice Breyer's concurrence does not label treble damages a punitive end in and of itself, but rather views deterring infringement as "a means to patent law's ends," the true goals of which—namely the distribution of knowledge and promotion of utility—are achieved "through a complex system of incentive-based laws."⁷⁷ Justice Breyer's concerns clearly lie with the small business owner and the incremental innovator.⁷⁸ To err on the side of more frequently awarding enhanced damages is to err on the side of "discourag[ing] lawful activity . . . rather than 'promote[ing]' the 'Progress of Science and the useful Arts," as set out in the utilitarian foundation for intellectual property rights.⁷⁹ Though his language does not provide specific guidance on limitations, and therefore does little to mitigate concerns for emboldened trolls, the rationale represents a marked shift in enhanced damages limitations.

B. DISTRICT COURT INTERPRETATIONS ARE FAITHFUL TO THE NEW HALO STANDARD

Since the *Halo* decision, two cases in particular have helped shed light on the new test, adding substance to Chief Justice Robert's language of penalizing egregious behavior. Both cases preserve *Seagate*'s second, subjective prong as the heart of the new *Halo* willfulness analysis.

The first, *Innovention Toys, LLC v. MGA Entertainment, Inc.*, suggests that the second prong of the *Seagate* test—subjective bad faith—is sufficient to find willfulness under the first prong of the new *Halo* standard. Innovention alleged that MGA willfully infringed its board game technologies, claiming that after an MGA developer attended a toy fair at which Innovention displayed its new game the company created an

76. *Id.* Justice Breyer stated:

Enhanced damages have a role to play . . . [but] that role is limited . . . The more that businesses, laboratories, hospitals, and individuals adopt [the approach of sending mass-assertion letters], the more often a patent will reach beyond its lawful scope to discourage lawful activity, and the more often patent-related demands will frustrate, rather than "promote," the "Progress of Science and useful Arts."

Id.

^{77.} Id.

⁷⁸ Id

^{79.} *Id.* (citing U.S. CONST. art. I, § 8, cl. 8).

^{80.} Innovention Toys, LLC v. MGA Entm't, Inc., No. 2:07-ev-06510-SM-MBN, 2016 WL 4151240, at *2 (Fed. Cir. Aug. 5, 2016).

almost identical game.⁸¹ The district court found willful infringement,⁸² though this was vacated on appeal after the Federal Circuit found that the district court had failed to evaluate important prior art pertaining to MGA's obviousness defense.⁸³ Since the original jury found that the subjective prong of *Seagate* was satisfied by "clear-and-convincing-evidence," the lowered threshold of a preponderance of the evidence was necessarily satisfied.⁸⁴ Therefore, the Federal Circuit instructed the district court to "exercise its discretion in accordance with *Halo*, including the emphasis on egregiousness," given that willfulness had been established—consistent with the two-step approach.⁸⁵

The second case, WesternGeco LLC v. ION Geophysical Corp., further expounds upon the new test, adding factors to consider when deciding Halo's second prong: whether the willful conduct was so egregious as to warrant awarding enhanced damages. WesternGeco filed suit against ION Geophysical for patent infringement of its marine seismic streamer technology. 86 After a jury found infringement of the patented technology and no invalidity, as well as subjective recklessness under Seagate's second prong, WesternGeco moved for enhanced damages, which were denied based on ION's reasonable defenses. 87 On appeal, the Federal Circuit noted that *Halo* "did not disturb the substantive standard for the second prong of Seagate . . . [and] subjective willfulness alone . . . can support an award of enhanced damages."88 Importantly however, it also differentiated the finding of willfulness from the decision to award enhanced damages, noting "objective reasonableness of the accused infringer's positions can still be relevant for the district court to consider when exercising its discretion."89 Under WesternGeco, the first part of the Halo test—determining whether willfulness exists—may still be Seagate's subjective prong. 90 Halo's second prong, the totality of the circumstances in deciding whether to award

^{81.} Innovention Toys, LLC v. MGA Entm't, Inc., 611 F. App'x 693, 695–96 (Fed. Cir. 2015).

⁸² Id. at 700-01.

^{83.} Innovention Toys, LLC v. MGA Entm't, Inc., 665 F. Supp. 2d 636, 652–55 (E.D. La. 2009) (ruling the claims nonobvious in light of plaintiff's prior art).

^{84.} Innovention Toys, 611 Fed. Appx. at 695–96.

^{85.} Innovention Toys, 2016 WL 4151240, at *2.

^{86.} WesternGeco LLC v. ION Geophysical Corp., 837 F.3d 1358, 1360 (Fed. Cir. 2016).

^{87.} Id.

^{88.} Id. at 1362.

^{89.} Id. at 1363.

^{90.} Id.

enhanced damages, may yet include considerations of *Seagate*'s first "objective recklessness" prong. 91

Both *Innovention* and *WesternGeco* represent faithful implementations of Chief Justice Roberts' *Halo* standard for willful infringement. *Seagate*'s subjective prong captures those whose actions merit blame, as infringers who know and understand the degree of their impropriety are synonymous with the wanton disregard detailed in Chief Justice Roberts' opinion. Moreover, in deciding whether to award enhanced damages, "objective recklessness" is not barred from the totality of the circumstances, and indeed may help differentiate a more "egregious" offender from a less malignant one. 93

Given the loose guidelines of the lead opinion, it would appear that any inquiry into behavior is acceptable so long as it centers on penalizing truly "egregious" willful behavior. He second prong of *Seagate*—subjective bad-faith—and the frequently cited *Read* factors are therefore still satisfactory under the new *Halo* instructions, as an infringer who has subjective knowledge of his own infringement and proceeds anyway is characteristically, "malicious." 95

III. BALANCING THE GOALS OF INTELLECTUAL PROPERTY RIGHTS AND PUNITIVE MEASURES

Justifications for intellectual property rights have often been the subject of debate among legal scholars, the most persistent of which has been Lockean utilitarianism and its derivatives. Skeptical that intellectual property rights in their current form increase social utility, however, some scholars have turned their backs on utilitarian justifications amidst empirical evidence of benefit to the public showing mixed results. These scholars have, in some cases, abandoned empirical justifications altogether

^{91.} Id.

^{92.} See Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1932 (2016).

^{93.} See WesternGeco., 837 F.3d at 1362.

^{94.} See Halo Elecs., 136 S. Ct. at 1932.

^{95.} See supra note 25; see also In re Seagate Tech. LLC, 497 F.3d 1360, 1384 (Fed. Cir. 2007) (en banc); Read Corp. v. Portec, Inc., 970 F.2d 816, 827 (Fed. Cir. 1992).

^{96.} See Adam D. Moore, A Lockean Theory of IP Revisited: A Review of Justifying Intellectual Property, 49 SAN DIEGO L. REV. 1069, 1101 (2012).

^{97.} See Mark A. Lemley, Faith-Based Intellectual Property, 62 UCLA L. REV. 1328, 1336–37 (2015). Professor Lemley discusses how prominent patent scholars, including Professor Robert Merges, have turned towards a faith-based, moral justification for an individual's entitlement to excluding others from practicing that which he invents.

in favor of "faith-based," moral justifications for patent rights. ⁹⁸ But perhaps baked into this unease is the concern over a rapidly changing legal landscape in intellectual property. Professor Mark Lemley notes that, in parallel with the increase in empirical studies on patent law in the last thirty years, the United States has adopted a "host of new IP laws." This body of law convolutes empirical patent utility analysis, and perhaps indicates an overregulation of patent law as a whole. But the fact remains that the "principal philosophical theory" for patent rights has been utilitarian. ¹⁰¹ Regardless of the debate, if utilitarian rationales are deemed the foundation of intellectual property rights, then so too should be the justifications for patent damages so as to minimize overprotection and maximize scientific progress. A question therefore remains: Does *Halo* reach the correct "balance" of interests in the conflict between the protection of patent rights and the need to incentivize innovation? Further, is Chief Justice Roberts' punitive analysis the best means to get there?

A. THE HALO DECISION INCORRECTLY EMPHASIZES RETRIBUTIVIST GOALS OF ENHANCED DAMAGES OVER CONSTITUTIONAL INCENTIVES FOR INNOVATION

The notion of treble damages is, notably, not unique to patent law and indeed, not without critics. ¹⁰³ Among the justifications for treble damages is the utilitarian argument for deterrence. ¹⁰⁴ Operating under the assumption that not all violations are caught, Congress allows heightened damages in order to set an example of those who are caught and to make up for

^{98.} Id. at 1337.

^{99.} *Id.* at 1335–37.

^{100.} *Id.* at 1332. Professor Lemley, citing JAMES BESSEN & MICHAEL MEURER, PATENT FAILURE: HOW JUDGES, LAWYERS, AND BUREAUCRATS PUT INNOVATION AT RISK (2009), notes that some scholars have suggested that patent rights can be justified in specific industries, like the biomedical industry, but not elsewhere. Since patents are a form of government regulation, the availability of patents in other fields is inherently overprotective.

^{101.} Peter S. Menell, *Intellectual Property: General Theories*, in 2 ENCYC. OF L. & ECON. 129, 129–30 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000).

^{102.} Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1935 (2016).

^{103.} See Leon B. Greenfield & David F. Olsky, Treble Damages: To What Purpose and to What Effect?, BRITISH INST. FOR INT'L AND COMP. L. 2 (Feb. 2, 2007), http://www.wilmerhale.com/uploadedFiles/WilmerHale_Shared_Content/Files/Editorial/Publication/Treble%20Damages%20Article_%20BIICL%20conference.pdf [https://perma.cc/7EX8-3D3F].

^{104.} See id.; see also Rite-Hite Corp. v. Kelley Co., 819 F.2d 1120, 1126 (Fed. Cir. 1987) (en banc).

infractions that have escaped capture.¹⁰⁵ A second argument for treble damages is that of retributivist punitive controls, where enhanced damages are awarded as punishment for the violation, beyond the compensation for the victim's damages alone.¹⁰⁶

While both explanations of treble damages could reasonably explain Congress's motives underlying the Patent Act, the Constitution, in its approach to intellectual property rights, is widely recognized as decidedly utilitarian in nature.¹⁰⁷ Thomas Jefferson's view of an incentive-based regime designed as "an encouragement to men to pursue ideas which may produce utility" became the backdrop on which American intellectual property rights were thus created.¹⁰⁸ Hence, viewed in light of history and the constitutional scheme, deterrence should drive enhancement analysis. Applying retributive principles may seem attractive where infringers act in bad faith, but in practice, doing so would ignore the constitutional foundation for intellectual property rights and the Lockean principles of utilitarianism behind them.¹⁰⁹

Innovention and WesternGeco are faithful implementations of Chief Justice Roberts' Halo opinion. But Roberts' focus on punishing "egregious" offenders loses sight of patent law's guiding balance between disclosure and protection. And while the cases go about the new "totality of the circumstances" test in slightly different ways—with Innovention essentially using only Seagate's second, subjective prong to find willfulness and WesternGeco including the objective recklessness prong of Seagate's test into the decision to implement damages—both cases accurately capture bad faith infringers and apportion damages appropriately. 110

^{105.} Greenfield & Olsky, supra note 103, at 5-6.

^{106.} See generally John Calvin Jeffries, Jr., A Comment on the Constitutionality of Punitive Damages, 72 VA. L. REV. 139 (1986) (exploring the inadequacy of punitive measures justifying damages generally).

^{107.} See generally Kenneth Einar Himma, Toward a Lockean Moral Justification of Legal Protection of Intellectual Property, 49 SAN DIEGO L. REV. 1105 (2012) (detailing the legitimacy of intellectual property rights through a content-creator, investment approach, the roots of which are attributed to Locke).

^{108.} Chris Dixon, *Thomas Jefferson on Patents*, BUS. INSIDER (July 16, 2011), http://www.businessinsider.com/thomas-jefferson-on-patents-2011-7 [https://perma.cc/TWE6-TTG3].

^{109.} See id.

^{110.} See Innovention Toys, LLC v. MGA Entm't, Inc., 2016 WL 4151240, at *2 (Fed. Cir. Aug. 5, 2016); WesternGeco LLC v. ION Geophysical Corp., 837 F.3d 1358, 1360 (Fed. Cir. 2016).

B. THE CURRENT DAMAGES REGIME CAN BE INTERPRETED TO BE CONSISTENT WITH THE CONSTITUTION

Perhaps the most favorable, and most simplistic, method for bounding enhanced damages in accordance with the Constitution is to maintain 35 U.S.C. § 284 as it stands and to emphasize the utilitarian goal of deterrence in the decision on whether or not to apply a multiplier to the award.¹¹¹

Instead of looking to Chief Justice Roberts' opinion for justification of imposing treble damages, we should instead look to Justice Breyer's concurrence to perform the legwork of the statute. 112 Justice Breyer's "limits" emphasize district court discretion, even where willfulness is established, to highlight the narrow scope of enhanced damages applicability in deterring only unlawful innovation. 113 Such limits, crafted with an eye towards the delicate balance of disclosure and creative protection to encourage lawful innovation, align with the Constitution's dictate to promote the "progress of Science and the Useful Arts." 114 This would allow section 284 to remain unaltered, and would bring enhanced damages in line with other aspects of patent and intellectual property law. 115 Indeed, redefining *Halo*'s second prong, we can summarize Justice Breyer's "limits" and say that it is the *impact on innovation within industry* that bounds enhanced damages, not "egregious" conduct.

C. EMPHASIZING UTILITARIAN PRINCIPLES OF INTELLECTUAL PROPERTY LAW WILL NOT EMBOLDEN PATENT TROLLS

Despite the Supreme Court's assurance otherwise, some scholars have expressed concern that the *Halo* opinion will embolden patent trolls who see a renewed ability to obtain higher damages. ¹¹⁶ Not all agree that *Halo* is an outright victory for patent trolls, though the decision clearly leans in favor of patent owners over alleged infringers. ¹¹⁷

^{111.} See 35 U.S.C. § 284 (2012).

^{112.} See Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1935–37 (2016).

^{113.} *Id*.

^{114.} U.S. CONST. art. 1, § 8, cl. 8.

^{115.} See Mark A. Lemley, Property, Intellectual Property, and Free Riding, 83 TEX. L. REV. 1031, 1032 (2005). Professor Lemley argues that a utilitarian view of intellectual property rights, as is traditional, is the best explanation of and justification for intellectual property as a whole because it strikes the correct balance between inventor/creator control and ability to compete in the marketplace. *Id.*

^{116.} See Noah Feldman, Supreme Court Asserts Itself and Patent Trolls Win, BLOOMBERG (June 14, 2016, 12:24 PM), https://www.bloomberg.com/view/articles/2016-06-14/supreme-court-asserts-itself-and-patent-trolls-win [https://perma.cc/TY2F-5WT6].

^{117.} See Daniel Nazer, Supreme Court Gives More Leeway to Lower Courts on Patents and Copyright: Will Lower Courts Champion Innovation?, ELEC. FRONTIER FOUND. (June

1. The Patent Troll Demand Letter Threat

Patent trolls, otherwise known as "non-practicing entities" or "NPEs" are typically characterized by individuals or organizations who acquire patent rights by buying patents, as opposed to being inventors themselves. The patent troll business model relies up notice letters threatening lawsuits, in hopes that recipients will license the technology or settle litigation. Patent trolls have been highly criticized for a variety of unwanted side effects, including damaging the image of the "small inventor" in the eyes of Congress and increasing industry costs like research and development for companies that actively participate in inventorship. 120

While the negative effects of patent trolls are debated, one particular concern scholars have is patent trolls' use of fraudulent demand letters. Demand letters, used to make alleged infringers aware of patented technology and presented at trial to help prove willfulness, are the bread and butter of the patent troll business. ¹²¹ Knowing that settlement is typically cheaper than fighting, companies put on notice of potential infringement are unduly coerced into forgoing a properly adjudicated outcome. ¹²²

To think, therefore, that a new policy that so strongly favors patentees over alleged infringers will have no impact on patent trolls' behavior may be naïve. Demand letters are not bound by the same requirements from state to state. ¹²³ In states where laws governing demand letters require little specificity, patent trolls may issue excessive numbers of demand letters to entities that are unlikely to infringe, knowing that the increased threat of treble damages may incentivize companies to settle rather than risk

^{27, 2016),} https://www.eff.org/deeplinks/2016/06/supreme-court-gives-more-leeway-lower-courts-patents-and-copyright-will-lower [https://perma.cc/7WUA-S4GS].

^{118.} See Tim Pohlmann & Marieke Opitz, Typology of the Patent Troll Business, 43 R&D MGMT. 103, 104 (2013).

^{119.} Id. at 104-05.

^{120.} See generally Christopher A. Cotropia, The Individual Inventor Motif in the Age of the Patent Troll, 12 YALE J.L. & TECH. 52 (2009) (exploring whether the uptick in patent troll litigation has damaged the "individual inventor" image in innovation); James E. Bessen, Michael J. Meurer & Jennifer Laurissa Ford, The Private and Social Costs of Patent Trolls, 34 REGULATION 4, Winter 2011-2012, at 26 (arguing that patent troll activity has led to reduced innovation incentives).

^{121.} Scott Burt, *Extortionist Demand Letters Are Wrecking Public Confidence in the U.S. Patent System*, IP WATCHDOG (Oct. 26, 2014), http://www.ipwatchdog.com/2014/10/26/extortionist-demand-letters-are-wrecking-public-confidence-in-the-u-s-patent-system/id=51811/.

^{122.} Id.

^{123.} Chase Means, *Has the Supreme Court Breathed New Life into Patent Trolls in* Halo *and* Stryker?, IP WATCHDOG (June 15, 2016), http://www.ipwatchdog.com/2016/06/15/supreme-court-patent-trolls-halo-stryker/id=70050/.

willfulness at trial.¹²⁴ Though some scholars disagree with the notion that patent trolls are inherently bad,¹²⁵ unwarranted and fraudulent demand letters are an inexcusable by-product of facilitating damages awards.

Justice Breyer's "limits" on enhanced awards are a start to protecting legitimate innovation in courts, but facilitating damages may yet have undesirable effects on companies who fearfully settle patent troll demands outside a court of law. There is little reason to believe that, in response to the new *Halo* test, patent trolls won't increase their demand letters while simply adding the words "egregious conduct" to their complaints.

2. Utilitarian Limits Protect Lawful Innovation

Regardless of the Supreme Court's accuracy in predictions with respect to softening concerns about patent trolls, using utilitarian principles to determine when enhanced damages should apply will likely mitigate these concerns further. This is because courts will likely turn to considerations used in equitable remedies, such as evaluating whether the parties in the lawsuit are competitors, and to what degree the alleged infringement affects the patentee's market. Patent trolls, which lack inventorship and production of material goods, will not survive a claim for enhancements under this analysis. Given that these entities are usually only interested in licensing, litigation that precludes enhancements due to a lack of market impact (even in the case of subjective willfulness), will not preclude damages for patent holders outright, but will adjust compensation in a manner consistent with the damages suffered. The only damage left unsubstantiated for the patent troll is the cost of the suit, however the Supreme Court specifically noted in *Halo* that enhanced damages are not a

^{124.} *Id.*; Eric J. Riedel, Note, *Patent Infringement Demand Letters: Does* Noerr-Pennington *or the First Amendment Preempt State Law Liability for Misleading Statements?*, 31 BERKELEY TECH. L.J. 623, 627 (2016).

^{125.} See Marc Morgan, Stop Looking Under the Bridge for Imaginary Creatures: A Comment Examining Who Really Deserves the Title: Patent Troll, 17 FED. CIR. B.J. 165, 166 (2008).

 $^{126.\} eBay,\ Inc.\ v.\ MercExchange,\ 126\ S.\ Ct.\ 1837,\ 1839–41\ (2006)$ (denying injunctions where plaintiff and defendant are not competitors).

^{127.} See Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1937–38 (2016).

^{128.} See generally J.P. Mello, Technology Licensing and Patent Trolls, 12 B.U. J. SCI. & TECH. L. 388 (2006) (discussing the business model of patent trolls, focused on maximization of return and minimization of risk with respect to counterclaims challenging patent validity). Since patent trolls often seek a reasonable royalty, *id.* at 390, willfulness does not merit enhanced damages, since a claim of willfulness has not affected the entity's business model or operations. In fact, an infringer who acts willfully in a patent troll context may simply make a reasonable royalty easier to obtain since infringement is more readily established.

form of compensation for the patentee.¹²⁹ Consequently, under a utilitarian regime, perhaps it is best not to think of enhanced damages as compensation for the victim, but rather compensation for the industry, whose faith in patent protections is the driver of innovation.

D. JUDGES ALREADY POSSESS THE TOOLS FOR THE INDUSTRY-BASED ANALYSIS

A potential criticism of an emphasis on impact to industry over culpability may be that it requires a substantial analytical investment from the judge. However, such information is already present in damages calculations, and the impact on industry is only incrementally more sophisticated than the analysis judges already perform. Regardless of the manner in which parties seek damages—whether through reasonable royalty or through an analytical approach—courts possess the necessary information to extrapolate an effect on industry from reasonable royalty evidence.

Under a hypothetical negotiation approach, a method used to calculate a reasonable royalty, courts use the fifteen *Georgia-Pacific* factors to determine the outcome of a theoretical willing licensor/licensee negotiation. These factors require parties to produce sufficient information for the court to determine the effect of the infringement on the relevant industry. Among the *Georgia-Pacific* factors are: (6) the effect of selling the patented specialty in promoting sales of other products of the licensee; that existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales; (8) the established profitability of the product made under

^{129.} See Halo, 136 S. Ct. at 1929 ("Some early decisions did suggest that enhanced damages might serve to compensate patentees as well as to punish infringers Such statements, however, were not for the ages.").

^{130.} See, e.g., Grain Processing Corp. v. Am. Maize-Prods. Co., 893 F. Supp. 1386, 1396–97 (N.D. Ind. 1995). Judge Easterbrook, awarding a reasonable royalty instead of lost profits, performed an analysis of the industry at issue, found that the process that would have been used to create a noninfringing product was available at the time of infringement, though at a greater cost, and that this did not justify infringement, since the company could have produced a noninfringing product at higher internal cost while still capturing some of the patentee's market. *Id.* at 1390–92. In his analysis, Judge Easterbrook considered the manufacturing processes, alternatives to infringement, and consumer impact of infringing and noninfringing products. The analytical framework suggested would simply demand a consideration of third parties in the market, but would employ the same considerations. *Id.*

^{131.} See, e.g., Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1324–25 (Fed. Cir. 2009) (noting the historical emphasis on hypothetical negotiations); LaserDynamics, Inc. v. Quanta Comput., Inc., 694 F.3d 51, 75–77 (Fed. Cir. 2012); Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

the patent; its commercial success; and its continued popularity; (9) the utility and advantages of the patented property over the old modes or devices, if any, that had been used for working out similar results; (10) the nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention; (11) the extent to which the infringer has made use of the invention; and any evidence probative of the value of that use: (13) the portion of the realizable profits that should be credited to invention as distinguished from non-patented elements, manufacturing process, business risks, or significant features or improvements added by the infringer; and finally (14) the opinion testimony of qualified experts. 132 These specific factors are both inward-looking with respect to the infringer's benefits gained by infringement itself, rather than inventing around or seeking alternate solutions in industry, as well as outward looking in assessing the value of the patented technology as an improvement upon prior technologies in the industry at large.

Similarly, if a patentee chooses to prove damages through an analytical method of lost profits, the court will still possess an ability to determine impact to innovation and industry. 133 The analytical method has two predominant variations a patentee may use to prove damages. The first variation is the "Entire Market Value Rule," under which a patentee claims that the patented feature is the exclusive driver of the downstream sale, and therefore damages associated with the infringement consist of the entire value of the sale price. 134 The second version of the analytical method, used when the patented feature may be distilled from the overall purchase price into the "smallest salable unit," is an apportionment method. 135 While this method may seem exclusively introspective, looking mostly at the infringer's internal profit projections for the infringing product, the infringer's profit projections necessarily bake in the impact its product will have on the market as a whole. 136 By delving more deeply into the profit projections themselves, experts and juries alike will see a "before and after" of the market absent infringement, and with the infringing competition.

^{132.} Georgia-Pacific, 318 F. Supp. at 1120.

^{133.} See TWM Mfg. Co. v. Dura Corp., 789 F.2d 895, 899 (Fed. Cir. 1986), cert. denied, 479 U.S. 852 (1986); Lucent Techs., 580 F.3d at 1324–25.

^{134.} Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1226–27 (Fed. Cir. 2014).

^{135.} Virnetx, Inc. v. Cisco Sys., Inc., 767 F.3d 1308, 1326–27 (Fed. Cir. 2014).

^{136.} See Methodologies for Determining Reasonable Royalty Damages, FISH & RICHARDSON, www.fr.com/reasonableroyalty/ [https://perma.cc/B4CY-4KBQ] (last visited Apr. 23, 2017); Rama Yelkur & Paul Herbig, Global Markets and the New Product Development Process, 5 J. PROD. & BRAND MGMT. 38, 38–47 (1996).

IV. CONCLUSION

The Supreme Court's Halo decision represents a deviation from the constitutional framework of intellectual property rooted in utilitarian principles. Despite the frequent traditional tort implications in intellectual property lawsuits, viewing the enhanced damages option of 35 U.S.C. § 284 as a punitive clause is yet another imperfect application of tort in intellectual property. Consequently, Justice Brever's concurrence, emphasizing the limits on enhanced damages to further the progress of the arts and sciences and to promote innovation, should govern analysis of Halo's second prong—whether or not enhanced damages should be awarded upon a finding of willfulness. Chief Justice Roberts' punitive opinion, though consistent with traditional notions of culpability, is inconsistent with the constitutional justification for intellectual property rights. Further, if Justice Breyer's concurrence is law, 35 U.S.C. § 284—permitting treble damages—need not change. Instead, the analysis should be reworked so the decision to enhance damages rests upon an analysis of impact on innovation, not on "egregiousness" of conduct.