Discretion in Patent Damages

John M. Golden[*]

Abstract

Delegation of decision-making discretion has long been a strategy for responding to concerns about information costs and contingency in human institutions and organizations. Such concerns tend to be particularly high in the context of intellectual property, whose focus, promoting creativity and innovation, naturally entails problems of uncertainty and incommensurability. In the United States, current disputes over patent damages provide a striking example of these issues. Courts struggle to assess how much compensation is appropriate for violating a patentee's "right to exclude," particularly when the patent in question covers only a facially small portion of an overall product or process. In addressing key questions relating to such assessments, including the admissibility and sufficiency of evidence as well as the extent of any enhanced damages, trial judges wield great discretion. More generally, by providing only relatively bare statutory instructions on monetary remedies, Congress has effectively given the judiciary as a whole great discretion in administering these awards. With reference to principles of legal design likely to be useful in situations characterized by uncertainty, context specificity, and information scarcity, this Article contends that, at least if the purposes of patent law's main monetary remedies have been rightly understood, generous allotments of discretion to the judiciary as a whole and to district court judges in particular make substantial sense. On the other hand, appellate courts and, in some instances, Congress itself can do more to guide and, at least on the margins, confine these exercises of discretion, and this Article suggests ways in which such guidance and confinement might proceed.

* Professor, The University of Texas School of Law. For helpful comments, I thank David Abrams, Stephanie Bair, Oren Bracha, Samuel Bray, Tun-Jen Chiang, Thomas Cotter, Rebecca Eisenberg, Glynn Lunney, and participants at the 2017 Works-in-Progress Intellectual Property Conference and the 2017 conference on patent damages at the University of Texas School of Law. This Article was prepared for that conference on patent damages. Intel Corporation provided funding for this conference, including for author honoraria, but left the organization and content of the conference on patent damages to my full discretion.

TABLE OF CONTENTS

INTRODUCTION

In human institutions and organizations, delegation of decision-making discretion has long been a strategy for responding to concerns about information costs and contingency. Such concerns tend to be particularly high in the context of intellectual property, which focuses on a goal of promoting innovation that naturally entails problems of uncertainty and incommensurability. In the United States, recent and ongoing disputes over patent damages provide a striking example of these issues. Courts struggle to assess how much compensation is appropriate for violating a patentee's "right to exclude," particularly when the patent in question covers only a facially small portion of an overall product or process. In addressing key questions relating to such assessments, including the admissibility and sufficiency of evidence and the propriety of enhanced damages, trial judges wield great discretion. More generally, by providing only relatively bare statutory instructions on monetary remedies, Congress has effectively given the judiciary as a whole great discretion in administering these awards.

The role of discretion in patent damages has been salient both in legislative reform efforts and in interchanges between the United States Supreme Court and the United States Court of Appeals for the Federal Circuit, the circuit court that hears nearly all appeals in patent cases.[1] Awards of enhanced damages and of attorney fees are both considered forms of patent "damages" for purposes of this Article, and, for both, the Supreme Court has recently obliterated legal rules developed by the Federal Circuit that significantly limited trial court discretion.[2] Here, as elsewhere in patent law, the Supreme Court has pushed significant amounts of discretion back to trial judges, a move predictably leading to questions about whether resulting increases in legal uncertainty or uniformity are justified by any gains that such discretion promises.[3] Meanwhile, the Federal Circuit has made recent and as-yet unrebuffed moves to limit trial court discretion in awarding reasonable royalty damages: the Federal Circuit has overturned some awards as excessive, provided new instruction or limits on approaches to establishing

---

[1] John M. Golden, *The Federal Circuit and the D.C. Circuit: Comparative Trials of Two Semi-Specialized Courts*, 78 GEO. WASH. L. REV. 553, 555 (2010) ("[T]he Federal Circuit has exclusive jurisdiction over appeals of all cases 'arising under' U.S. patent law.").

[2] *See* Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1935 (2016) (holding that the Patent Act "gives district courts the discretion to award enhanced damages" and that a Federal Circuit test "unduly confine[d] the ability of district courts to exercise the discretion conferred on them"); Octane Fitness, LLC v. ICON Health & Fitness, Inc., 134 S. Ct. 1749, 1755 (2014) (holding that the Federal Circuit's legal framework for the award of attorney fees was "unduly rigid" and "impermissibly encumber[ed] the statutory grant of discretion to district courts").

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

monetary remedies, and generally placed more pressure on district judges to act as substantial gatekeepers for expert testimony.[4] Congress itself has considered adopting statutory provisions designed to significantly limit judicial discretion with respect to reasonable royalty damages—although threatened congressional action on this front has repeatedly stalled.[5]

Focusing on the main monetary remedies for infringement of standard utility patents, this Article examines recent developments with respect to discretion in the awarding of patent damages and connects questions about discretion in patent damages to a more general body of literature on discretion.[6] This literature highlights costs and benefits of grants of discretion that largely track those commonly associated with the use of legal standards as opposed to legal rules.[7] Costs of discretion include relative decreases in the predictability of case outcomes as well as deviations from the basic rule-of-law principle that like cases should have like outcomes.[8] Other costs are administrative and error costs associated with case-by-case decision-making, including those resulting from opportunities for bias and corruption.[9] Benefits include greater opportunities for innovation and for tailoring outcomes to the facts of individual cases as well as decreased administrative or legislative costs for those who would otherwise need to lay

---

[4] *See* John M. Golden, *Reasonable Certainty in Contract and Patent Damages*, 30 HARV. J.L. & TECH. (forthcoming) (noting that, "without contraction as of 2016, the Federal Circuit issued a series of decisions tightening the evidentiary standards for establishing the value of reasonable royalty damages").

[5] *See* John M. Golden, *Principles for Patent Remedies*, 88 TEX. L. REV. 505, 584–86 (2010).

[6] *See, e.g.*, AHARON BARAK, JUDICIAL DISCRETION (Yadin Kaufmann trans., 1989); KENNETH CULP DAVIS, DISCRETIONARY JUSTICE: A PRELIMINARY INQUIRY (1969); Henry J. Friendly, *Indiscretion About Discretion*, 31 EMORY L.J. 747 (1982); Daniel J. Meltzer, Jurisdiction and Discretion *Revisited*, 79 NOTRE DAME L. REV. 1891 (2004); Doug Rendleman, *The Triumph of Equity Revisited: The Stages of Equitable Discretion*, 15 NEV. L.J. 1415 (2015); Maurice Rosenberg, *Appellate Review of Trial Court Discretion*, 79 F.R.D. 173 (1978); David L. Shapiro, *Jurisdiction and Discretion*, 560 NYU L. REV. 543 (1985); Suzanna Sherry, *Logic Without Experience: The Problem of Federal Appellate Courts*, 82 NOTRE DAME L. REV. 97 (2006).

[7] *See* BARAK, *supra* note 6, at 262 (describing "judicial discretion" as necessary "to ensure individualization" but threatening harm to "certainty, unity, and stability" required to satisfy "human nature's deep-seated need to plan ahead").

[8] *See* 1 HENRY M. HART, JR. & ALBERT M. SACKS, THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW 163 (tentative ed. 1958) ("In the choice between law and discretion, it will be seen, what is basically at stake is the uniformity of application of the law's directions.").

[9] *See* DAVIS, *supra* note 6, at v (associating "the greatest and most frequent injustice" with unlimited discretion, "where rules and principles provide little or no guidance, where emotions of deciding officers may affect what they do, where political or other favoritism may influence decisions, and where the imperfections of human nature are often reflected in the choices made").

down stricter legal doctrine or engage in stricter oversight.[10] The balance between costs and benefits depends on context, including the nature of the relevant law, its goals, its legal and social setting, and the relative competence of pertinent institutional actors.

Consideration of the costs and benefits of discretion in administering patent damages suggests that U.S. patent law is plausibly on the right track in delegating substantial overall responsibility to the judiciary in general and to district courts in particular. At least as long as there remains substantial uncertainty about how best to define the bounds and computational methodologies for damages such as a reasonable royalty, a generous allotment of judicial discretion and especially of district court discretion likely accords both with understandings of relative institutional competence and with the desirability of experimentation and innovation as means to improve the administration of damages over time.[11] Substantial district court discretion might be even more broadly defensible in relation to the relatively exceptional and culpability-focused nature of enhanced damages and attorney fee awards.[12]

On the other hand, appellate courts and Congress can and should play a substantial role in confining and guiding exercises of trial-level discretion. To ensure preservation of the institutional advantages of a grant of discretion, this confinement and guidance will often come best in increments or on margins, with specific and sometimes repeated encounters with particular factual scenarios helping to clarify proper limits or informing principles. In contrast, abrupt adoption of a general and strictly confining framework can run too great a risk of preventing not only evolutionary adaptation of the law in light of changing circumstances, but even optimization of the law in light of better knowledge of immediate circumstances.

In discussing trial court discretion, this Article focuses on the discretion of trial judges as opposed to that of juries. This focus substantially reflects the fact that, in the United States, regulation of jury discretion comes through regulation and oversight of district court discretion in instruction juries, determining the evidence to which juries are exposed, and reviewing the supportability of jury verdicts.

The Article proceeds as follows. Part I introduces the main forms of patent damages available in cases involving utility patents, which are patents on functional, as opposed to merely ornamental, inventions.[13] Part II takes a

[10] *See infra* text accompanying notes __.
[11] *See infra* text accompanying notes __.
[12] *See infra* text accompanying notes __.
[13] Andrew Beckerman-Rodau, *The Problem with Intellectual Property Rights: Subject Matter Expansion*, 13 YALE J.L. & TECH. 36, 54 (2010) ("The most common type of patent—a utility patent—protects things that are primarily functional as opposed to things that are

two-step approach to setting the stage for analysis of discretion's role in awarding patent damages. First, Part II discusses the legal phenomenon of "authoritative discretion," which is the form of discretion with which this Article is concerned. Authoritative discretion is discretion whose exercise commands some degree of formal deference. Part II then explores authoritative discretion's general costs and benefits and concludes with a discussion of how a policymaker might identify situations in which particular schema for authoritative discretion are especially apt. Part III returns the focus to patent damages by recounting recent developments in patent damages law, using Part II's identification of costs and benefits to evaluate the current state of authoritative discretion on patent damages, and discussing how Congress or the appellate courts can improve this discretion's exercise.

I. THE BASIC FRAMEWORK FOR PATENT DAMAGES

The United States Patent Act authorizes multiple forms of monetary relief for infringement but provides relatively little instruction on the specific nature of these forms of relief. For cases involving a standard utility patent, the Patent Act authorizes monetary remedies in the form of compensatory damages,[14] enhanced damages in the discretion of the trial court,[15] and attorney fees "in exceptional cases."[16] For enhanced damages, § 284 of the Act imposes a ceiling by specifying that "the court may increase the damages up to three times the [compensatory] amount."[17] But § 284 says nothing more about how the court should exercise this discretion.[18] Similarly, for attorney fees, the Act specifies that awards of such fees are to be in "exceptional circumstances" but provides no further restriction other than that the awards be "reasonable."[19]

The Act's most extensive set of instructions on the nature of these awards have to do with compensatory damages. Section 284 of the Act makes clear that compensatory damages are to be generally awarded by mandating that, after finding in favor of a patent holder alleging infringement, a court "shall award … damages adequate to compensate for the

primarily aesthetic in nature."); *cf.* TrafFix Devices, Inc. v. Marketing Displays, Inc., 532 U.S. 23, 29 (2001) ("A utility patent is strong evidence that the features therein claimed are functional.").

[14] 35 U.S.C. § 284.

[15] *Id.*

[16] *Id.* § 285. In relation to compensatory damages, the Patent Act also provides for the award of "interest and costs as fixed by the court." *Id.* § 284.

[17] 35 U.S.C. § 284.

[18] *Id.*

[19] *Id.* § 285.

infringement."[20] Section 284 also specifies a floor for this compensatory amount, declaring that the compensatory award is to be "in no event less than a reasonable royalty for the use made of the invention by the infringer."[21] Section 284 further indicates that the trial judge "shall assess" these damages when a jury does not.[22] Finally, the section makes clear that "[t]he court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable."[23]

Even with all this apparent detail, however, § 284 leaves key questions unanswered. In particular, the specific nature of the "reasonable royalty" floor for compensatory damages is left for the courts to assess. In describing the possibility of using expert testimony to aid assessment of "damages *or*" a reasonable royalty,[24] the language of § 284 arguably equivocates on whether reasonable royalty damages should truly be considered a form of compensatory damages at all. Moreover, § 284 provides no additional instruction on either the sorts of injury that warrant compensation or the principles that should inform calculation of a reasonable royalty.[25] The lack of more specific statutory instruction might partly explain the courts' common deployment of an unwieldy and much derided laundry list of fifteen *Georgia-Pacific* factors for such calculations.[26]

In short, Congress have given courts only sparse guidance on the assessment of monetary relief in patent cases. Consequently, how much discretion results and where this discretion resides are questions that have been substantially in play in interchanges within and between the courts.

II. DISCRETION IN SYSTEM DESIGN

Before further analyzing the question of discretion in awards of patent damages, this Article considers the phenomenon of discretion more generally and connects its analysis to pre-existing literature. Section II.A specifies the kind of discretion—namely, authoritative discretion—that is of central concern in this Article. Section II.A discusses ways in which authoritative discretion can be structured and located within a legal system. Section II.B

[20] *Id.* § 284.
[21] *Id.*
[22] *Id.*
[23] *Id.*
[24] *Id.* (emphasis added).
[25] *Cf.* Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1546 (Fed. Cir. 1995) (en banc) (noting that there can be "a background question whether the asserted injury is of the type for which the patentee may be compensated").
[26] *See* John M. Golden, *Reasonable Certainty in Contract and Patent Damages*, 30 HARV. J.L. & TECH. 257, 262–63 (2017) (noting "continued invocation" of the *Georgia-Pacific* factors despite criticism).

follows with a discussion of costs and benefits of authoritative discretion. Section II.C concludes this Part by considering how a policymaker might analyze whether a particular scheme for discretion is justified.

A. DEFINING THE NATURE OF RELEVANT DISCRETION

1. Authoritative Discretion

As Maurice Rosenberg observed nearly four decades ago, "[d]iscretion is a pervasive yet elusive concept" that can defy efforts at precise, practical definition.[27] Different commentators have formulated different definitions, in part to fit different purposes or contexts.[28] This Article generally uses the term "discretion" to indicate a decision-maker's power to choose between multiple options and to have this choice enjoy some degree of legally sanctioned sticking power. Discretion in this sense might be more precisely termed "authoritative discretion" to distinguish a broader category of "effective discretion" that Kenneth Culp Davis envisioned as generally encompassing a government official's effective power to engage in unauthorized or even illegal acts as well as legally sanctioned ones.[29] Because this Article primarily focuses on powers of legal interpretation and application legitimately delegated to U.S. courts by Congress and the Constitution, the concept of authoritative discretion seems the better fit.

On the other hand, even courts are liable to engage in actions of "questionable legality"[30] in the sense that they can act in ways that render their decisions liable to reversal by a supervisory authority. The fact that such an error is commonly described as an "abuse of discretion," rather than a failure to exercise discretion at all,[31] makes me hesitate to embrace the common description of discretion as necessarily involving a choice between legally permissible alternatives.[32]

---

[27] Rosenberg, *supra* note 6, at 173.

[28] Sarah M. R. Cravens, *Judging Discretion: Contexts for Understanding the Role of Judgment*, 64 U. MIAMI L. REV. 947, 952 (2010) ("Because discretion comes up in varied substantive contexts, the efforts to define it have often gone down very specific paths ….").

[29] DAVIS, *supra* note 6, at 4 (adopting a definition under which "discretion is not limited to what is authorized or what is legal but includes all that is within 'the effective limits' on the officer's power" (emphasis omitted)).

[30] *Id.*

[31] *See* HARRY T. EDWARDS & LINDA A. ELLIOTT, FEDERAL COURTS STANDARDS OF REVIEW: APPELLATE COURT REVIEW OF DISTRICT COURT DECISIONS AND AGENCY ACTIONS 68 (2007) ("[W]hen reviewing for abuse of discretion, a court of appeals must … determine whether the trial court's decision was outside the choices permitted to it ….").

[32] *See, e.g.*, BARAK, *supra* note 6, at 7 (defining "discretion" as "the power given to a person with authority to choose between two or more alternatives, when each of the alternatives is lawful"); 1 HART & SACKS, *supra* note 8, at 162 ("[D]iscretion means the power to choose

Not coincidentally, this Article's notion of authoritative discretion substantially tracks definitions of discretion previously and separately used by Maurice Rosenberg and Henry Friendly to analyze relationships between trial and appellate courts. The authoritative discretion that is the focus of this Article combines the notion of choice[33] with a notion of legally sanctioned stickiness that both Rosenberg and Friendly stressed.[34] This stickiness means that the exercise of discretion has significant legal consequence, often by shifting or intensifying the burden of persuasion for obtaining a different legal result upon any subsequent judicial review. In Friendly's terms, authoritative discretion exercised by lower courts commonly involves a choice that "will not be reversed simply because an appellate court disagrees."[35] The fact that the choice is not simply a point of information for a later reviewer is a key aspect of authoritative discretion.

The requirement of legally sanctioned sticking power distinguishes authoritative discretion from what might be called "quasi-authoritative discretion," a form of effective discretion that results when a decision simply or substantially escapes review because of practical and prudential limitations on legal oversight, but not because of any formal deference. Hence, the existence of authoritative discretion is not established merely by the fact that a government official's choice predictably escapes reversal because of phenomena such as a doctrine of harmless error, the probability of settlement of a case before appeal, or a reviewing court's proclivity for resolving appeals on other grounds.[36]

Likewise and arguably a fortiori, authoritative discretion is not established by the fact that a decision-maker may choose between different options without substantial worry of a personal penalty such as a reprimand, suspension, or removal. For authoritative discretion to exist, there needs to be some positive legal consequence that formally favors retention of the discretionary decision itself. At one extreme, an exercise of authoritative discretion might be viewed as entirely binding as a matter of law and not

---

between two or more courses of action[,] each of which is thought of as permissible."); Cravens, *supra* note 28, at 952 ("[W]e tend to think of discretion as authority to choose within a range of possible legitimate outcomes.").

[33] *See, e.g.*, Rosenberg, *supra* note 6, at 175 ("The basic idea that discretion conveys is choice.").

[34] Friendly, *supra* note 6, at 754 (rejecting the choice formulation for discretion in favor of "say[ing] that the trial judge has discretion in those cases where his ruling will not be reversed simply because an appellate court disagrees"); Rosenberg, *supra* note 6, at 176 (describing that discretion in its "procedural use" "means that the trial judge has what might be termed a limited right to be wrong in the view of the appellate court").

[35] Friendly, *supra* note 6, at 754.

[36] *See* Rosenberg, *supra* note 6, at 176 (distinguishing discretion's "limited right to be wrong in the view of the appellate court" from "the question of harmless error").

subject to review. At another extreme, an exercise of authoritative discretion might be viewed as plausibly valid within only strict legal limits and, even within those limits, might be subject to review only with the smallest imaginable quantum of deference.

2. Designing Authoritative Discretion

Besides the question of what subject matter is subject to discretionary authority, there are at least three dimensions along which a regime of authoritative discretion must be defined: (1) the nature of any bounds or guidelines for legally proper exercises of discretion, (2) the extent of oversight for exercises of discretion, and (3) the distribution of authoritative discretion among legal actors. These three dimensions might be viewed as reflecting three more tersely stated questions for a legal system's allotment of discretion: "(1) What legal limits or principles? (2) What formal institutional checks? (3) To whom?" Note that there is a formal aspect to these questions of legal design in that they focus on legal limits, checks, and assignments of power. Of course, a policymaker should also consider how, in practice, such legally defined aspects of discretion will translate into realities of power and responsibility.

The range of choice for legally proper exercises of authoritative discretion can be broad or narrow. Legal rules and case law can fence off certain expanses of an available choice set as forbidden territory.[37] For example, the Patent Act limits enhancement of damages to three times the separately established amount for compensatory damages.[38] Likewise, case law currently limits legitimate awards of enhanced damages to situations in which the infringer has behaved egregiously.[39] Through adjudication, the Federal Circuit attempted to further restrict enhancement of damages by limiting the circumstances for their proper award to ones in which the infringer could not establish "a 'substantial question' as to the validity or noninfringement of the patent."[40] As Section III.A discusses, the Supreme Court rejected this restriction, thereby restoring a larger range for the proper exercise of district court choice.[41]

---

[37] *Cf.* Rosenberg, *supra* note 6, at 180 (describing "[t]he area of discretion [as] a pasture" that certain appellate rulings limit by "fenc[ing] off" previously permissible parts).
[38] 35 U.S.C. § 284.
[39] *See* Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1935 (2016) (describing legal principles developed over time as "limiting the award of enhanced damages to egregious cases of misconduct beyond typical infringement").
[40] *Id.* at 1930.
[41] *Id.* at 1932 (describing the Federal Circuit's restrictions on enhanced damages as " 'unduly rigid' " and " 'impermissibly encumber[ing] the statutory grant of discretion to district

Formal institutional checks on exercises of discretion commonly include judicial review. In the United States, there is common provision for at least one round of appellate review of trial court judgments as of right.[42] In Rosenberg's and Friendly's accounts, the level of deference accorded district court decisions can exist on a spectrum from the very high, rendering the district court decision "virtually impervious to appellate overturn,"[43] to the very low, leaving the district court decision with "no deference beyond its persuasive power"[44] or in fact no "deference at all."[45] In relation to acts of administrative agencies, the federal Administrative Procedure Act (APA) contemplates that congressional statutes may expressly "preclude judicial review" of at least some questions and that Congress may implicitly make other questions unreviewable by providing insufficient law to apply.[46] Nonetheless, the general presumption in federal law is that agency actions, even those involving substantial amounts of lawful discretion, are subject to judicial review.[47]

Even in situations in which a discretionary decision is not subject to vacatur or reversal through direct appeal, checks on exercises of discretion can come through collateral review of the decision-maker's performance. Indeed, Sarah Cravens has suggested that certain classes of exercises of discretion are best checked through disciplinary processes or performance evaluations, rather than direct appeal.[48] This design alternative for checking discretionary decision-making is worth noting as a general matter, but it seems implausible as a substantial means to address the predominant concerns about judicial discretion relating to the assessment of patent damages. Concerns about this particular branch of discretion tend to center on substantively technical or managerial problems of effective evidentiary

courts' " (quoting Octane Fitness, LLC v. ICON Health & Fitness, Inc., 134 S. Ct. 1749, 1755 (2014))).

[42] John M. Golden, *Redundancy: When Law Repeats Itself*, 94 TEX. L. REV. 629, 649 (2016) ("[C]ommitment to substantial redundancy in legal institutions and processes appears through common recognition of rights to appeal the decisions of trial courts.").

[43] Rosenberg, *supra* note 6, at 176; *see also* Friendly, *supra* note 6, at 755 ("In some instances the trial court is accorded broad, virtually unreviewable discretion ….").

[44] Friendly, *supra* note 6, at 755–56.

[45] Rosenberg, *supra* note 6, at 179.

[46] 5 U.S.C. § 701(a); *see also* RICHARD J. PIERCE, JR., SIDNEY A. SHAPIRO & PAUL R. VERKUIL, ADMINISTRATIVE LAW AND PROCESS § 5.3, at 140–41 (5th ed. 2009) (discussing the limits on judicial review contemplated by the APA).

[47] Mach Mining, LLC v. E.E.O.C., 135 S. Ct. 1645, 1651 (2015) ("[T]his Court applies a 'strong presumption' favoring judicial review of administrative action." (quoting Bowen v. Mich. Academy of Family Physicians, 476 U.S. 667, 670 (1986)).

[48] Cravens, *supra* note 28, at 951 (exploring the possibility of "mov[ing] oversight [of judicial discretion] to a more appropriate mechanism than appellate review, such as regulation of judicial conduct in the disciplinary process or judicial performance evaluation").

gatekeeping, proper weighing of legitimate considerations, suitable jury instruction, rather than problems of misconduct of a kind for which personal punishment would commonly be thought appropriate.

Finally, there is the question of what individuals or institutions within a legal system should exercise authoritative discretion. Through the relatively barebones nature of the U.S. Patent Act's provisions on patent damages, Congress has effectively required other government actors to exercise discretion in deciding how these provisions are implemented.[49] Because Congress has not given the U.S. Patent and Trademark Office or any other administrative agency rulemaking authority on these questions,[50] that discretion has been delegated to the federal judiciary. There remains the further question of how discretion is structured and apportioned within the judiciary itself. In patent law, key questions in this vein have been (1) the standards for appellate review of decisions and findings of district judges and juries;[51] (2) the extent to which the Supreme Court and Federal Circuit should adopt rules, standards, or principles that limit or guide exercises of trial-level discretion;[52] and (3) the extent to which the Supreme Court should review the Federal Circuit's appellate decisions in patent law with some degree of deference, whether because of the Federal Circuit's generally greater patent law expertise or because of Congress' assignment of the Federal Circuit to a special statutory role.[53] Part III will take up these questions and discuss how the Supreme Court and Federal Circuit have differed in their responses to them.

B. COSTS AND BENEFITS OF DISCRETION IN SYSTEM DESIGN

Before analyzing specific questions about discretion in the courts' awards of patent damages, we can helpfully consider costs and benefits generally associated with a grant of authoritative discretion. In significant

---

[49] *See supra* text accompanying notes 13–29.

[50] John M. Golden, *Patentable Subject Matter and Institutional Choice*, 89 TEX. L. REV. 1041, 1044 (2011) (noting the USPTO's lack of "binding interpretive authority on matters of substantive patent law").

[51] *See, e.g.*, Teva Pharms. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 835 (2015) ("We hold that the appellate court must apply a 'clear error,' not a *de novo*, standard of review [to a factfinding underlying patent claim construction].").

[52] *See, e.g.*, Octane Fitness, LLC v. ICON Health & Fitness, Inc., 134 S. Ct. 1749, 1755 (2014) (holding that "framework" adopted by the Federal Circuit to regulate awards of attorney fees was "unduly rigid" and "impermissibly encumber[ed] the statutory grant of discretion to district courts").

[53] *See, e.g.*, Dickinson v. Zurko, 527 U.S. 150, 171 (1999) (Rehnquist, C.J., dissenting) ("In making this determination [regarding the standard of review for USPTO factfinding], I would defer not to agencies in general as the Court does today, but to the Court of Appeals for the Federal Circuit, the specialized Article III court charged with review of patent appeals.").

respects, analysis of costs and benefits of authoritative discretion tracks that for the costs and benefits of legal standards relative to legal rules.[54] To be sure, Henry Friendly was right to point out that there is substantial distinction between (1) questions about whether law should be more standard-like or more rule-like and (2) questions about the specific allocation of authoritative discretion within a government hierarchy.[55] Nevertheless, at least at a general categorical level, there are substantial overlaps between costs and benefits of granting authoritative discretion and costs and benefits of deploying legal standards instead of legal rules.[56]

Grants of authoritative discretion can have both substantive and administrative advantages. By providing a legal decision-maker with choice, discretion allows for tailoring legal outcomes to individual fact patterns[57] and enables innovation not only in the identification and delineation of options, but also in the development of ways of choosing between them.[58] Moreover, by restricting review of discretionary decisions, authoritative discretion can

---

[54] *See supra* text accompanying note 7.

[55] Friendly, *supra* note 6, at 754–55 (distinguishing between debates over rules versus standards and debates over trial judge discretion). For example, one could have a full-blown, totality-of-circumstances standard but subject its application by trial judges to strict *de novo* review. Likewise, one could have a strict rule, such as a treble damages cap, but have no possibility of reversal of trial judge decisions that assign damages within the bounds of that rule. In the former case, the trial judge's application of a standard would not amount to an exercise of authoritative discretion. In the latter case, the trial judge's decision is subject to a strict rule but has essentially boundless discretion within the bounds of that rule.

[56] *Cf.* Friendly, *supra* note 6, at 768 ("Even in situations where there are strong reasons to defer to the trial court's judgment, there often will be substantial benefits from the development of generally applicable rules with the trial court being entitled to depart from them when circumstances require.").

[57] *See* Rosenberg, *supra* note 6, at 181 (noting how certain "endlessly variable" sets of circumstances can render impossible the "devis[ing of] a rule of law or a principle of decision" to govern them all); *cf.* Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 600 (1992) (observing that limits on the tailoring of rules to specific facts can arise because of an inability to "foresee all potential hazards"); Mark P. Gergen, John M. Golden & Henry E. Smith, *The Supreme Court's Accidental Revolution? The Test for Permanent Injunctions*, 112 COLUM. L. REV. 203, 237–38 (2012) ("It is foundational that equity must be open textured in light of the ability of parties to opportunistically evade legal obligations.").

[58] DAVIS, *supra* note 6, at 216–17 ("Discretion is indispensable for individualized justice, for creative justice, for new programs in which no one yet knows how to formulate rules, and for old programs in which some aspects cannot be reduced to rules."); *cf.* Richard L. Marcus, *Slouching Toward Discretion*, 78 NOTRE DAME L. REV. 1561, 1584 (2003) ("[T]he last twenty years of national rulemaking has tended fairly often to endorse the innovation that results from giving district courts primary discretion to devise procedures via local rules."); Stephen N. Subrin. *How Equity Conquered Common Law*, 135 U. PA. L. REV. 909, 1001 (1987) (acknowledging equity's "admirable ability to act with a conscience and to create new rights").

limit appeals to higher authorities, facilitate earlier settlement of disputes, and reduce the cost of review even when appeals are made.[59] Grants of discretion can also save on legislative or rulemaking costs by curtailing needs to specify outcome-determinative rules in advance.[60] Even if relevant contingencies could be costlessly anticipated, such specification can be costly and, at some level, might be practically impossible because of constraints such as "limitations of language."[61] Where a legislator or rulemaker lacks expertise, trustworthiness, or other individual or institutional advantages relative to the decision-maker to whom discretion is delegated, a grant of discretionary power can have the additional benefit of placing effective authority in the hands of an individual or other decision-making entity better suited to wield it in society's interest.[62] Finally, a grant of authoritative discretion could help improve the overall job performance of those in the recipient positions by making these positions more desirable, fulfilling, or intellectually stimulating. But because these last, performance-enhancing aspects of discretion seem more speculative and controversial—Rosenberg characterized such benefits as a "bad reason" for justifying trial court discretion[63]—these last potential benefits play no role in this Article's analysis.

---

[59] Rosenberg, *supra* note 6, at 181 (describing easing the appellate workload as a "bad reaso[n]" for trial courts' possession of authoritative discretion because the reason "does not offer any guidance as to which rulings should be reviewed and which should not").

[60] *See* Rendleman, *supra* note 6, at 1408 (observing that grants of judicial discretion can result when "[l]egislators, rulemakers, and earlier courts cannot formulate a rule, but they can identify factors and formulate guidelines and standards"); *cf.* Kaplow, *supra* note 57, at 572 (noting how, at least in a stylized example, "[t]he difference in [law] promulgation costs favors standards").

[61] Kaplow, *supra* note 57, at 600.

[62] *Cf.* Rosenberg, *supra* note 6, at 183 (arguing that there "is a sound and proper reason for conferring a substantial measure of respect to the trial judge's ruling whenever it is based on facts or circumstances that are critical to decision and that the record imperfectly conveys" (emphasis omitted)).

[63] *But cf, id.* at 181 (describing as "another bad reason" for trial-level authoritative discretion the notion that "it would demoralize the trial judges if every one of their determinations were subjected to appellate review"). Although a grant of such discretion to federal judges merely in the context of monetary remedies in patent law might not suffice to help attract better personnel than would seek or accept a more position that might be viewed as less responsible and more "clerical," such a grant could form part of an aggregate of discretion that does serve this purpose. In any event, because such performance or job satisfaction benefits of authoritative discretion appear relatively speculative, Part III's analysis does not rely on them.

Costs of authoritative discretion might also be significant. Such costs can include: (1) reduced predictability of legal results;[64] (2) decreased uniformity in such results as different decision-makers wield their discretionary authority differently or as even an individual decision-maker fails to be self-consistent;[65] (3) greater possibilities for corruption, bias, or shirking by the entity exercising discretion;[66] (4) a supervising entity's shirking of oversight responsibility either by not supervising carefully or by failing to provide appropriate guidance;[67] (5) increased litigation and adjudication costs as parties bring wide-ranging evidence and arguments to bear on questions of how discretion should be exercised;[68] and (6) error or efficiency costs that result from authoritative discretion being misallocated to a suboptimal decision-maker, rather than to a decision-maker more suitable to choose in a way that optimizes social interests.[69] In relation to concerns about corruption, bias, or shirking by the entity exercising discretion, one could worry about forum-shopping-related distortions in how the law operates. In patent law, there is currently concern that some trial courts are engaged in a sort of "race to the bottom" in which they use their discretion over various aspects of procedure to develop local rules or practices designed to attract filings by patent-suit plaintiffs.[70]

---

[64] *Cf.* Kaplow, *supra* note 57, at 569 ("Because a standard requires a prediction of how an enforcement authority will decide questions that are already answered in the case of a rule, advice about a standard is more costly.").

[65] *See* Marcus, *supra* note 58, at 1562 ("In many ways, one might say that discretion is the antithesis of law."); Meltzer, *supra* note 6, at 1910 ("[W]henever a decision becomes more complex, refined, and multi-dimensional, it affords greater opportunity for decisionmakers to miscalculate or misapprehend and for the resulting doctrinal pattern to be more uncertain.").

[66] *See* Kenneth A. Bamberger, *Regulation as Delegation: Private Firms, Decisionmaking, and Accountability in the Administrative State*, 56 DUKE L.J. 377, 381 (2006) (discussing how administrative law seeks "to regulate the exercise of judgment" by requiring that agencies "demonstrate to others that they reached their decisions consonant with public law values of rationality, responsiveness, and reviewability"); Cravens, *supra* note 28, at 954 ("Various aspects of ideology may shape a judge's whole approach to any case.").

[67] *Cf.* Daniel J. Meltzer, *The Supreme Court's Judicial Passivity*, 2002 SUP. CT. REV. 343, 343 (criticizing the Supreme Court's tendency "[i]n the subconstitutional arena" "to refuse to take responsibility for shaping a workable legal system in the everyday disputes that come before the judiciary without great fanfare").

[68] *Cf.* Kaplow, *supra* note 57, at 570 (noting that societal enforcement costs are "greater if a standard governs because the adjudication will also require giving content to the standard").

[69] *See* Friendly, *supra* note 6, at 757–58 (discussing advantages in decision-making that appellate courts tend enjoy relative to trial courts).

[70] *See* J. Jonas Anderson, *Court Competition for Patent Cases*, 163 U. PA. L. REV. 631, 634–35 (2015) (suggesting that "forum shopping in patent law is driven, at least in part, by federal district courts competing for litigants"); Daniel Klerman & Greg Reilly, *Forum Selling*, 89 S. CAL. L. REV. 241, 242 (2016) (arguing that "forum shopping is problematic because it

C. ANALYZING SCHEMA FOR DISCRETION

The preceding Section's catalogue of costs and benefits of authoritative discretion provides a basis for evaluating whether a particular regime of authoritative discretion appropriately advances social interests and how such a regime might be improved either immediately or over time. In comparing candidate legal regimes R_1 and R_0 that differ only in the amounts or arrangements of authoritative discretion granted with respect to a given issue, a policymaker could use the catalogue of costs and benefits in Section II.B to consider how the different legal regimes would perform relative to one another. In many circumstances, there will be no precise answers worth trusting: costs and benefits will often be difficult to quantify and might otherwise be substantially incommensurable. But there might often be reason to believe that a particular subset of costs and benefits dominates and predictably favors R_1 over R_0 or vice versa. Through this focus on likely dominant effects in characteristic classes of situations, the catalogue of costs and benefits might provide guidance even when comparable quantitative values for such costs and benefits are unreliable or unavailable.

For example, if a policymaker believes strongly that there needs to be some patent damages remedy in the nature of a reasonable royalty but the policymaker has little idea of how to determine such a royalty across a wide variety of factual situations, there might be a strong argument that the costs of developing a precise and also socially sensible legal rule for the valuation of reasonable royalty awards are very large, if not insurmountable. In this vein, Doug Rendleman has suggested that questions of how to measure relief quite generally require context-specific answers best developed through case-by-case exercises of trial-level discretion.[71] Even in the presence of such context-specificity, the judicial system—with its ethical standards and traditions of reasoned analysis and explanation, its adversarial procedure and due process guarantees, and its multiple institutional checks such as appellate review and division of power between trial judges and juries—might be well designed to adequately contain standard costs of discretion such as unpredictability, inconsistency, corruption, and bias.

Moreover, a track record of doctrinal evolution through common law decision-making might provide substantial hope that, over time, courts will develop and adapt legal principles and rules more effectively than a

---

leads to forum selling" under which some judges "make the law more pro-plaintiff because plaintiffs choose the court with the most pro-plaintiff law and procedures").

[71] Rendleman, *supra* note 6, at 1451 (observing that a "jury has ample discretion in setting the amount of a plaintiff's damages, which is a contextual and fact-specific decision" and that the "context-specific" nature of "the measurement of a specific remedy for a specific dispute" argues in favor of trial-judge discretion with respect to equitable relief).

legislature could by itself. In some instances, the legislature might reject resulting judicial elaborations or innovations. But there is a positive history of judicially developed legal innovations not only being tolerated but even later being codified. The reasonable royalty measure for patent damages itself provides an example of such judicial development followed by statutory enactment. According to leading treatise writer Donald Chisum, Congress adopted the reasonable royalty measure as a floor for compensatory damages only after the courts developed the "measure as a means of providing a just recovery to a patent owner who could not, for evidentiary or other reasons, prove lost profits or an established royalty."[72]

The circumstances of policy uncertainty and context-specificity favoring a substantial grant of discretion in relation to reasonable royalties are only one example of a large class of situations involving attempts to develop law for situations of "complexity, contingency, and substantial ignorance" of relevant facts.[73] For a great range of difficult questions, members of Congress and frequently even appellate judges cannot anticipate or sometimes even appreciate nuances of the forms of evidence pretrial and trial processes can reasonably be expected to yield, never mind all the ways in which particular revealed facts can press against weaknesses, limitations, or vagaries of existing legal doctrine.[74] In such situations, sensible legal policy is often helpfully informed by principles of (1) "nonabsolutism, an allowance for flexibility or exception"; (2) "devolution, an interest in placing considerable discretion in the hands of private parties and government actors nearest to the facts of individual cases"; (3) "administrability, a principle acknowledging that detailed tailoring of [legal doctrine or devices] must have limits;" and (4) "learning, a commitment to designing [legal doctrine or institutions] that promote the production and disclosure of information that improves system performance."[75] In such circumstances, a healthy dose of authoritative discretion for trial judges or other government officials who have primary contact with "facts on the ground" might well be a good choice for system design.[76]

D. EVOLVING LIMITS ON JUDICIAL DISCRETION

[72] 7 DONALD S. CHISUM, CHISUM ON PATENTS § 20.07 (2017).
[73] John M. Golden, *Principles for Patent Remedies*, 88 TEX. L. REV. 505, 512 (2010) (discussing five principles for patent remedies design).
[74] *Cf.* Sherry, *supra* note 6, at __.
[75] *Id.*
[76] *Cf.* Rosenberg, *supra* note 6, at 183 (describing " 'you are there' reasoning" as "the chief and most helpful reason for appellate court deference to trial court rulings").

Sections II.B and II.C suggest that the conferral of authoritative discretion on district courts can be a sensible way for policymakers and the court system to address situations in which specific best practices are currently unknown. But there is often hope that, through an iterative process of adjudication of separate cases, the courts can develop knowledge or patterns of decision that enable them to helpfully narrow the range of proper exercises of discretion over time, with this process perhaps ultimately supporting the recognition and even codification of more specific governing rules.[77] Hence, Maurice Rosenberg envisioned appellate courts' occasionally and incrementally "cut[ting] away a corner of the pasture" of discretion "in which the trial judge is free to graze"[78]—a process that might be viewed as corresponding to the development of a new "micro-rule" that no more than marginally limits the district courts' pre-existing allotment of authoritative discretion. Henry Friendly offered a somewhat different mechanism for what he described as the narrowing of "the channel of discretion."[79] Friendly suggested that repeated exercises of district court discretion in "the same way" could effectively establish new limitations that appellate courts should enforce by refusing to "allow disparate results on the same facts."[80]

In separate opinions, the Supreme Court has suggested its support for both Rosenberg's and Friendly's mechanisms for evolutionary restrictions on trial-level discretion. In a 1997 decision in which the Supreme Court recognized a limited set of general principles governing patent law's doctrine of equivalents, the Court indicated its expectation that the Federal Circuit would "refine the formulation of the test for equivalence in the orderly course of case-by-case determinations" and thereby effectively restrict district court discretion in making a factual finding of equivalence between an accused product or process and an invention claimed by a patent.[81] Through such language, the Court appears to have embraced a vision of incremental restriction of an initial "pasture" of discretion in the manner of Rosenberg's vision of appellate corner cutting. Nearly two decades later, in a 2016 decision on district court discretion in awarding enhanced damages, the Supreme Court added an endorsement of Friendly's alternative mechanism for the narrowing of discretion over time, explicitly citing Friendly for the notion that, "through nearly two centuries of discretionary awards and review

[77] *Cf.* Stephen N. Subrin. *How Equity Conquered Common Law*, 135 U. PA. L. REV. 909, 1001 (1987) (acknowledging equity's beneficial capacity to generate "new rights" that eventually "become defined and part of the more rigorous common law").
[78] *Id.* at 180.
[79] Friendly, *supra* note 6, at 772.
[80] *Id.*
[81] Warner-Jenkinson Co. v Hilton Davis Chem. Co., 520 U.S. 17, 40 (1997).

by appellate tribunals, 'the channel of discretion [in awarding enhanced damages] ha[s] narrowed.' "[82]

III. OPTIMIZING DISCRETION FOR PATENT DAMAGES

This Part considers how discretion in the implementation of patent damages might be sensibly organized. Section III.A surveys recent developments in the structuring of judicial discretion in relation to patent damages. Section III.B then evaluates the current structuring of discretion in this area and how discretion might be better bounded or guided in the future.

A. RECENT PUSHES TO LIMIT OR LIBERATE DISCRETION

For a statutorily created legal regime like U.S. patent law, the original locus of legal discretion is with Congress,[83] which the Constitution empowers but does not command "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[84] As noted in Part I, through relatively barebones provisions on monetary remedies for patent infringement, Congress has effectively delegated much discretion to the federal judiciary in meting out such awards.[85] The following Subsections discuss recent congressional proposals to limit that judicial discretion as well as an ongoing to and fro within the courts regarding the extent to which such discretion resides in the district courts.

1. Congressional Proposals to Limit Discretion

In 2007 to 2008, the 110th Congress considered patent reform bills that sought to place statutory limits on judicial discretion in awarding reasonable royalties and enhanced damages.[86] Section 5 of the House bill

---

[82] Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1932 (2016). Interestingly, Friendly appears to have contemplated much quicker operation of his mechanism than the Court contemplated by the Court. In the article by Friendly that the Court cited, he described the emergence of a discretion-limiting rule based on a mere "eighteen reported decisions by district courts within our circuit," Friendly, *supra* note 6, at 771, rather than the seeming innumerable decisions "over the past 180 years" on which the Court relied in its 2016 decision, *Halo*, 136 S. Ct. at 1932.

[83] 1 HART & SACKS, *supra* note 8, at 187 ("Discretion also must include discretion whether to legislate or not to legislate ….").

[84] U.S. CONST., art. I, § 8, cl. 8.

[85] *See supra* text accompanying notes __.

[86] Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435, 439–40 (2012) (describing House and Senate bills that would have

would have imposed requirements that trial judges identify and limit factors to be considered by a jury in assessing a reasonable royalty.[87] The bill would have also required a trial judge to undertake "analysis to ensure that a reasonable royalty … is applied only to that economic value properly attributable to the patent's specific contribution over the prior art."[88] Further, under the bill, a trial judge would have been able to award enhanced damages for willful infringement only when (1) the infringer lacked "an informed good faith belief that the patent was invalid or unenforceable, or would not be infringed by the [relevant] conduct" and (2) "clear and convincing evidence" established that (a) infringement occurred after specific, "written notice from the patentee," (b) "the infringer intentionally copied the patented invention with knowledge that it was patented," or (c) "the infringer engaged in conduct that was not colorably different from … conduct previously found [by a court] to have infringed."[89] A 2008 version of the parallel Senate bill had similar language but added a lengthy provision to limit the use of nonexclusive licenses in assessing reasonable royalties.[90] Under the 2008 Senate bill, such a license could be used for this purpose only when the license was (1) for the patented invention in question or "sufficiently similar non-infringing substitutes" and (2) "of substantially the same scope, volume, and benefit of the rights granted."[91] Although the House passed its patent reform bill by a 220-to-175 vote, enactment of these bills ultimately stalled, with the Senate bill never making it to a floor vote.[92]

In 2009 and 2010, the House was relatively inactive on patent reform,[93] and the Senate became the main forum for continued debate. An amended version of the 2008 Senate bill scaled back proposals for detailed substantive regulation of district court assessment of reasonable royalties and featured a new version of general gatekeeping instructions for evidence on all forms of compensatory damages.[94] The new bill's enhanced damages provisions were similar to those in the 2008 Senate and House bills, but, in

---

imposed "a requirement that reasonable-royalty damages be based on a patent's 'specific contribution over the prior art' and new substantive and procedural barriers to the award of enhanced damages").

[87] H.R. 1908, 110th Cong. § 5 (2007).

[88] *Id.*

[89] *Id.*

[90] S. 1145, 110th Cong. § 4 (2008).

[91] *Id.*

[92] Matal, *supra* note 86, at 440–41.

[93] *Id.* at 441 (noting that, after 2007, the House 'did not consider a bill again on the floor, or even in committee, until 2011").

[94] S. 515, 111th Cong. § 4 (amended version of Apr. 2, 2009); *see also* Golden, *supra* note 5, at 585 (noting that the newer Senate proposal "abandon[ed] the effort to provide substantive instruction on how damages should be calculated" and "essentially charg[ed] the trial judge with acting as a vigorous gatekeeper").

line with the Federal Circuit's 2007 decision in In re *Seagate*,[95] these provisions included additional language indicating that enhanced damages required a showing by "clear and convincing evidence" that the infringer acted with "objective recklessness."[96]

The patent reform bills that matured into the America Invents Act (AIA) of 2011 omitted such provisions on patent damages.[97] The AIA did, however, include language providing that failure to obtain advice of counsel with respect to potential patent infringement "may not be used to prove that the accused infringer willfully infringed."[98] This provision is relevant to enhanced damages because a finding of willful infringement has generally acted as a threshold requirement for enhancement.[99] On the other hand, the resulting effect on damages law was far from dramatic as the new statutory language essentially codified an already existing aspect of Federal Circuit case law that forbade "an adverse inference" from an infringer's failure to produce to a court or even "to obtain an exculpatory opinion of counsel."[100]

2. Federal Circuit Moves to Limit District Court Discretion

Given congressional failure to enact substantial damages reform, the main theater of action in patent damages law has turned out to be the courts. Since 2005, the Federal Circuit has acted on a number of fronts to limit district court discretion in awarding patent damages. In early 2005, a circuit panel vacated a district court's award of attorney fees against a patent holder and, in so doing, articulated a strict test for when a court may award attorney fees under 35 U.S.C. § 285:

> Absent misconduct in conduct of the litigation or in securing the patent, sanctions may be imposed against the patentee only if both (1) the

[95] 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc) ("[T]o establish willful infringement, a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent."), *overruled in relevant part by* Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923(2016).
[96] S. 515, 111th Cong. § 4 (amended version of Apr. 2, 2009).
[97] *See* Matal, *supra* note 86, at 445 (noting that amendments to the bill passed by the Senate in 2011 dropped "any provisions affecting the award of damages").
[98] Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 17, 125 Stat. 284, 329 (2011) (codified at 35 U.S.C. § 298 (2012)).
[99] Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1932 (2016) ("The sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate.").
[100] Knorr-Bremse Systeme Fuer Nutzfahrzuege GmbH v. Dana Corp., 383 F.3d 1337, 1344–46 (Fed. Cir. 2004) (en banc), *overruled in irrelevant part by* In re Seagate, 497 F.3d 1360 (Fed. Cir. 2007), *overruled in irrelevant part by* Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923 (2016).

> litigation is brought in subjective bad faith and (2) the litigation is objectively baseless.[101]

The panel added that, because of "a presumption that the assertion of infringement of a duly granted patent is made in good faith," these showings needed to "be established by clear and convincing evidence."[102]

About two and a half years later and in the face of congressional reform efforts on enhanced damages,[103] the en banc Federal Circuit articulated a similarly two-pronged test for when a court could find willful infringement that may warrant enhanced damages:

> [T]o establish willful infringement, a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent…. If this threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer.[104]

Thus, for awards of both enhanced damages and attorney fees, the Federal Circuit embraced strict tests requiring not only subjective culpability but also objective bad faith or recklessness.

Notably, the Federal Circuit took a very different approach to regulating awards of reasonable royalty damages. Here, the circuit's opinions have tended not to articulate crisp, overarching new rules like the general requirements articulated for enhanced damages and attorney fees. Instead, the circuit issued multiple decisions that overturned individual trial court awards and incrementally tightened the standards for the admissibility and sufficiency of evidence.[105] Most crisply, the circuit established a new micro-rule by holding that a previously cited "25 percent rule of thumb" for royalty rates is generally inadmissible as evidence for a reasonable royalty because the rule of thumb lacks "a firm scientific or technical grounding" tied to the facts of individual cases.[106] The Federal Circuit has also rejected an expert's

---

[101] Brooks Furniture Mfg., Inc. v. Dutailleier Int'l, Inc., 393 F.3d 1378, 1381 (Fed. Cir. 2005), *abrogated in relevant part by* Octane Fitness, LLC v. ICON Health & Fitness, Inc., 134 S. Ct. 1749 (2014).

[102] *Id.* at 1382.

[103] *See supra* text accompanying notes 86–92.

[104] *Seagate*, 497 F.3d at 1371.

[105] *See, e.g.*, Whitserve, LLC v. Computer Packages, Inc., 694 F.3d 10, 33-34 (Fed. Cir. 2012) (holding that jury award of "reasonable royalty or 'other damages'" "must be the result of sheer surmise and conjecture" and that failure to grant a new trial on damages was therefore an abuse of discretion); *see also* John M. Golden, *Reasonable Certainty in Contract and Patent Damages*, 30 HARV. J.L. & TECH. 257, 261–62 (2017) (discussing the Federal Circuit's "series of decision tightening the evidentiary standards for establishing the value of reasonable royalty damages").

[106] Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1315 (Fed. Cir. 2011).

use of "the Nash Bargaining Solution," particularly the conclusion of a "50/50 profit split," where the expert failed to "sufficiently establis[h] that the premises of the theorem actually apply to the facts of the case at hand."[107] More generally but more vaguely, the Federal Circuit has demanded that evidence of patent licenses be used carefully and properly, tying analysis of the significance of those licenses to the specific patent or patents in suit.[108]

True, the Federal Circuit has continued to champion the so-called "entire market value rule," a rule providing that the entire market value for a multi-component product may be used as the basis for calculating compensatory damages only when the patented technology is the "basis for customer demand."[109] But this general rule is essentially a long-standing principle that is not of the Federal Circuit's invention.[110] In relation to the entire market value rule, the significant new wrinkle has been the circuit's indication that the flip side of the rule is a requirement that royalties be based on the value of the "smallest salable patent-practicing unit" (SSPPU).[111] The Federal Circuit has diluted the impact of the SSPPU gloss, however, by characterizing identification of the SSPPU as "simply a step toward meeting the requirement of apportionment."[112] Simultaneously, the Federal Circuit stressed that the more fundamental rule is that, in proving reasonable royalty damages, patentees must "apportion the royalty down to a reasonable estimate of the value of its claimed technology, or else establish that its patented technology drove demand for the entire product."[113]

---

[107] Virnetx, Inc. v. Cisco Sys., Inc., 767 F.3d 1308, 1332 (Fed. Cir. 2014).

[108] *See* ResQNet, Inc. v. Lansa, Inc., 594 F.3d 860, 871 (Fed. Cir. 2010) (emphasizing the need "to link certain [patent] licenses to the infringed patent"); Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1325 (Fed. Cir. 2009) (emphasizing concern "with whether the licenses relied on … are sufficiently comparable to the hypothetical license at issue in suit").

[109] *Lucent*, 580 F.3d at 1336 (internal quotation marks omitted).

[110] *See* Richard L. Stroup, Cecilia Sanabria, Kelly C. Lu & Daniel G. Chung, *Patentee's Monetary Recovery from an Infringer—A Revisit*, 98 J. PAT. & TRADEMARK OFF. SOC'Y 727, 745 (2016) ("The Supreme Court, when reviewing damages in patent-infringement actions, has consistently directed that damages should be awarded based on the value of the patented invention in the market, not simply on the breadth of a product or process that includes the patented feature.").

[111] Versata Software, Inc. v. SAP America, Inc., 717 F.3d 1255, (Fed. Cir. 2013) ("The entire market value rule is a narrow exception to the general rule that royalties are awarded based on the smallest salable patent-practicing unit."); LaserDynamics, Inc. v. Quanta Computer, Inc., 694 F.3d 51, 67 (Fed. Cir. 2012) ("[I]t is generally required that royalties be based not on the entire product, but instead on the smallest salable patent-practicing unit." (internal quotation marks omitted)).

[112] *Virnetx*, 767 F.3d at 1327 (Fed. Cir. 2014); *see also id.* at 1329 (indicating that there might be further need for apportionment where the SSPPU is itself "a multi-component product").

[113] *Id.* at 1329.

3. Supreme Court Countermoves

The Supreme Court has not reviewed on the merits the Federal Circuit's recent case law on reasonable royalties.[114] In contrast, the Court not only has reviewed but has also struck down both of the Federal Circuit's 2005 and 2007 articulations of strict limits on the availability of attorney fees and enhanced damages.[115] In 2014, the Supreme Court held that the Federal Circuit's limits on the availability of attorney fees were "unduly rigid" and "impermissibly encumber[ed] the statutory grant of discretion to district courts"[116] to award fees "in exceptional cases."[117] Per the Supreme Court, "an 'exceptional' case is simply one that 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."[118] In 2016, the Supreme Court dealt a similarly fatal blow to the Federal Circuit's test for the availability of enhanced damages. In rejecting the circuit's test for willful infringement, the Court repeated its criticisms of the prior test for attorney fees: the Federal Circuit's test for availability of enhanced damages was " 'unduly rigid, and it impermissibly encumber[ed] the statutory grant of discretion to district courts.' "[119]

Nonetheless, the Supreme Court's opinion on the standard for enhanced damages was distinct from its opinion on the standard for attorney fees in that, even though the Patent Act provides no explicit instruction on when district courts may enhance damages, the Supreme Court took pains to provide significant guidance on when such awards might be made. The Court observed that judicial discretion was "to be guided by sound legal principles"[120] and cited Henry Friendly's observation that repeated exercises of discretion can lead to a narrowing of " 'the channel of discretion' " through the development of patterns and principles that establish judicial norms.[121] Concluding that such channel narrowing had occurred with respect to enhanced damages, the Court stated:

> Awards of enhanced damages under the Patent Act over the past 180 years establish that they are not to be meted out in a typical

[114] *See* Golden, *supra* note 105, at 261 (observing that the Federal Circuit's decisions on reasonable royalty damages had issues "without contradiction as of 2016").
[115] *See infra* text accompanying notes 116–127.
[116] *Octane Fitness*, 134 S. Ct. at 1755.
[117] 35 U.S.C. § 285.
[118] *Octane Fitness*, 134 S. Ct. at 1756.
[119] *Halo*, 136 S. Ct. at 1932.
[120] *Id.* at 1932 (internal quotation marks omitted).
[121] *Id.* (quoting Friendly, *supra* note 6, at 772).

> infringement case, but are instead designed as a "punitive" or "vindictive" sanction for egregious infringement behavior.[122]

In a concurring opinion joined by Justices Kennedy and Alito, Justice Breyer further emphasized limitations on the circumstances and reasons warranting enhanced damages.[123] In particular, Justice Breyer expressed his views that: (1) "the Court's references to 'willful misconduct' do not mean that a court may award enhanced damages simply because the evidence shows that the infringer knew about the patent and nothing more";[124] (2) the Court's opinion did "not weaken" the statutory rule that failure to obtain advice of counsel may not be used to prove willful infringement;[125] and (3) the Court correctly indicated that "enhanced damages may not 'serve to compensate' patentees for infringement-related costs or litigation expenses."[126] Justice Breyer also suggested that, although the Court was right "that awards of enhanced damages should be reviewed for an abuse of discretion," "the Federal Circuit may take advantage of its own experience and expertise in patent law" when engaging in such review.[127]

Beyond attorney fees and enhanced damages, there is an additional front on which Supreme Court has effectively added to judicial discretion in administering patent remedies. In addition to the standard monetary remedies discussed throughout this Article, the Patent Act includes an extra remedy for infringement of a design patent, which is a patent on an ornamental design, as opposed to the sort of functional invention covered by a utility patent.[128] Section 289 of the Patent Act provides that an infringer who "(1) applies the patented design, or any colorable imitation thereof, to any article of manufacture for the purpose of sale, or (2) sells or exposes for sale any article of manufacture to which such design or colorable imitation has been applied shall be liable to the owner to the extent of his total profit, but not less than $250."[129] This statutory language on a disgorgement remedy for design-patent infringement might seem unusually clear and specific compared to the Patent Act's other language on monetary remedies.[130] But the Supreme Court has recently understood the language to contain a substantial ambiguity: "[t]he term 'article of manufacture,' as used in § 289, encompasses both a

---

[122] *Id.*
[123] *Halo*, 136 S. Ct. at 1936 (Breyer, J., concurring).
[124] *Id.*
[125] *Id.*
[126] *Id.* at 1937 (quoting *Halo*, 136 S. Ct. at 1929).
[127] *Id.* at 1938.
[128] *Compare id.* § 101(providing for the patentability of "useful" inventions), *with id.* § 171 (providing for the patentability of a "new, original, and ornamental design for an article of manufacture").
[129] *Id.* § 289.
[130] *See supra* text accompanying notes __.

product sold to a consumer and a component of that product."[131] With the Supreme Court having declined to say how one determines the relevant article of manufacture for disgorgement purposes, the lower courts must now take an initial pass at answering the question of when the relevant article is only a component and what the scope of that component is.[132]

B. DESIGNING AND GUIDING DISCRETION IN PATENT DAMAGES

Having surveyed recent developments in patent damages law, this Article now turns to the normative question of how discretion on patent damages should be allocated. The optimal nature of authoritative discretion in this area likely depends strongly on the understood purposes of patent law's monetary remedies as well as the relative competence of pertinent institutional actors.[133] For purposes of manageable analysis, this Article assumes that (1) monetary remedies in patent law are largely designed for the ends that courts have generally attributed to them and (2) the only candidates for a grant of relevant discretion from Congress are federal judges as opposed to administrative officials.

1. Understood Purposes of Monetary Awards in Patent Law

What have courts understood to be the basic ends of the major forms of patent damages? For compensatory damages such as lost profits or a reasonable royalty, the basic understanding is that Congress intends generally for the patentee to be made, financially at least, as well off as if infringement had not occurred.[134] As a floor for such a compensatory remedy, Congress has prescribed a "reasonable royalty."[135] Use of the words "reasonable" and "royalty" to describe this floor suggests that, in the absence of other applicable or proven damages, a patentee and infringer should somehow split the benefits of infringement in a way that tracks a value division that would

---

[131] Samsung Elecs. Co. v. Apple Inc., 137 S. Ct. 429, 434 (2016).
[132] *Id.* at 436 ("We decline to lay out a test [for what is the relevant 'article of manufacture'] in the absence of adequate briefing by the parties.").
[133] *See* Golden, *supra* note 5, at 509–12 (discussing alternative potential ends of patent law and difficulties in designing an optimal system of patent remedies); *cf.* Kirtsaeng v. John Wiley & Sons, Inc., 136 S. Ct. 1979, 1986 (Fed. Cir. 2016) (noting the propriety of considering the purposes of the surrounding act in defining limits to discretion to award attorney fees).
[134] *See* Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1545 (Fed. Cir. 1995) (en banc) (concluding that there is a "'but for' test" for compensatory patent damages) (citing Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 507 (1964)).
[135] *Id.* at 1544 (describing the Patent Act's language on a reasonable royalty as working "to set a floor below which damage awards may not fall").

have been reasonably expected if the two sides had entered into a license agreement before the infringement occurred. Unsurprisingly, therefore, courts' efforts to assess reasonable royalty damages have commonly focused on "ascertain[ing] the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began."[136]

The understood purposes of enhanced damages and attorney fee awards are distinct from those for compensatory damages. The Supreme Court has described enhanced damages for patent infringement as "a 'punitive' or 'vindictive' sanction for egregious infringement behavior,"[137] thereby presumably associating these damages with a deterrent, rehabilitative, or retributive function separate from the end of compensation per se.[138] The understood purpose of attorney fee awards appears to be more mixed. According to the Supreme Court, the awards have served partly to compensate a party for "costs attendant to litigation"[139] and partly to punish particularly bad forms of conduct.[140] The disgorgement remedy for design patent infringement might also be understood to serve multiple ends, both compensating the patent holder for the wrong[141] and, arguably more fundamentally, ensuring that the infringer does not profit from wrongdoing.[142]

---

[136] *Lucent*, 580 F.3d at 1324.

[137] *Halo*, 136 S. Ct. at 1932.

[138] Albert W. Alschuler, *The Changing Purposes of Criminal Punishment: A Retrospective of the Past Century and Some Thoughts About the Next*, 70 U. CHI. L. REV. 1, 1 (2003) (listing "the textbook purposes of criminal punishment—retribution, deterrence, incapacitation, and rehabilitation").

[139] *Halo*, 136 S. Ct. at 1929 (noting that historical concerns about compensating patentees for "costs attendant to litigation" through enhanced damages "dissipated with the enactment" of a statutory provision permitting court awards of attorney fees).

[140] *Octane*, 134 S. Ct. at 1758 ("We have long recognized a common-law exception to the general 'American rule' against fee-shifting … that applies for willful disobedience of a court order or when the losing party has acted in bad faith, vexatiously, wantonly, or for oppressive reasons" (some internal quotation marks omitted)).

[141] *Cf. Samsung*, 137 S. Ct. at 432 (noting that, at the time of a key Supreme Court decision on recovery of an infringer's profits, the patent statute "allowed a holder of a design patent to recover the actual damages sustained" (internal quotation marks omitted)).

[142] *See* John M. Golden & Karen E. Sandrik, *A Restitution Perspective on Reasonable Royalties*, 36 REV. LITIG. (forthcoming) (noting that the Restatement (Third) of Restitution and Unjust Enrichment (2011) "makes clear that the law of restitution is at its core the law of nonconsensual transfers that cannot be permitted to stand"). Because the $250 minimal damages award under the design-patent disgorgement provision seems essentially de minimis in the context of modern patent litigation and does not leave discretion as to its size, 35 U.S.C. § 289, consideration of this statutory floor is omitted from this Article's discussion of discretion in awarding patent damages.

2. Congressional Delegation of Discretion to the Judiciary

Section II.C indicates that a policymaker's uncertainty about the details of how to implement a reasonable royalty can argue in favor of delegating substantial discretion to the courts. Given the myriad and often evolving conditions in which patent infringement occurs and given also continuing developments and uncertainties regarding proper techniques for assessing compensatory damages, Section II.C's analysis seems quite applicable to the question of whether Congress should delegate discretion on these awards to the courts. As long as courts seem generally to be reasonably implementing congressional intent, there seems a substantial likelihood that Congress will enjoy no great institutional advantage in developing detailed damages rules to carry out the congressional purpose. The courts might well be more competent at developing relevant implementing doctrines and might do so more cheaply as a natural incident to the course of case-by-case adjudication. When the courts have settled on principles that appear likely to have longstanding value, there might be some added benefit from the extra sense of settlement that can come from congressional codification. But because of the general difficulty and slowness of enacting legislation, there is always danger of congressionally enacted rules' becoming substantially obsolete or ill tailored as relevant technological and economic circumstances change.

Delegation of discretion to courts has an evolutionary advantage in the action-forcing nature of their job. Whereas Congress need not enact legislation at any particular point in time, courts must decide cases as they arise. Consequently, courts can effectively be forced to grapple with new fact patterns and issues as parties raise them. As long as courts are not overly confined by congressional strictures or the courts' own precedents, courts can plausibly be expected to adapt legal doctrine to new circumstances over time. In this last regard and in the absence of an administrative agency substantially empowered to push developments through rulemaking or adjudication, the Supreme Court's occasional interventions in patent law might be particularly important to ensuring a healthy level of court-based dynamism.[143]

Major caveats to courts' capacity for adaptation can attach when problems are systemic in a way that the courts are not well situated to address through case-by-case adjudication. For example, courts might have greater relative difficulty responding to problems to the extent (1) the problems reflect a need for simultaneous, interrelated adjustment of different legal

[143] *See* John M. Golden, *The Supreme Court as "Prime Percolator": A Prescription for Appellate Review of Questions in Patent Law*, 56 UCLA L. REV. 657, 662 (1999) (emphasizing how the Supreme Court can "combat undesirable ossification of legal doctrine").

doctrines; or (2) the problems arise substantially from aspects of the institutional structure of the court system that courts cannot effectively or perhaps even legally alter by themselves. Depending on how one interprets current statutory provisions on venue, such a problem of institutional structure might currently cripple the courts' capacity to respond to concerns about district-level forum shopping.

In any event, the general advisability of room for the exercise of judicial discretion does not necessarily mean that Congress should neglect to clarify its intent or otherwise to provide at least a basic level of law for courts to apply. Regarding enhanced damages, attorney fee awards, and design patent law's disgorgement remedy, Congress's relatively bare instructions and the Supreme Court's fairly skeletal glosses leave substantial room for congressional action to help point the courts in what democratically elected legislators believe is the right direction. Particularly with respect to the relevant "article of manufacture" for design patent disgorgement, Congress might want to clarify the basic principle or principles that should inform design patent disgorgement, just as Congress specifies adequate compensation as the purpose of the main damages available under § 284. For enhanced damages and attorney fees, Congress might more understandably be content with the courts' fundamental conclusion that these are special monetary awards reserved for egregious instances of misbehavior. Because efforts to discourage or correct for such behavior are commonly complicated by the myriad and often evolving tactics of opportunists and other bad actors, leaving courts free to respond to such misconduct in the manner of traditional courts of equity is a plausible legislative strategy.

3. Trial-Court Discretion in Awarding Patent Damages

In relation to patent damages, bases for congressional delegation of substantial discretion to the courts in general commonly carry over to reasons for substantial discretion to reside with district courts in particular. Because of the same concerns of uncertainty, contingency, and context specificity that counsel in favor of congressional delegation, appellate courts might wisely hesitate to engage in detailed specification of requirements for compensatory or supra-compensatory damages. By living with individual cases from filing to initial judgment, district judges tend to be more expert in their overall facts and procedural histories than appellate judges can hope to be. As a result, district judges have substantial advantages in assessing what innovations to procedure or practice might best shape case histories and their associated evidentiary records. Moreover, district judges likely have greater expertise

with practicalities of implementing remedies.[144] This expertise can plausibly give them an edge not only in tailoring remedies, but also in determining the nature of evidentiary demands that the law may reasonably make. Finally, to the extent innovation and experimentation is valued, the relative numerosity and well-secured independence of district judges suggest that substantial discretion in their hands can have at least some of the developmental and adaptive advantages commonly thought obtainable by devolving responsibility to separate decision-making "laboratories."[145]

The case for authoritative discretion in the hands of district courts might be particularly strong for awards of enhanced damages and attorney fees.[146] Costs of discretion such as administrative costs and erosion of uniformity and predictability in decision-making appear substantially limited when monetary awards are given only in exceptional cases and thus have only a diluted impact on expectations in the bulk of litigated cases. Further, because these exceptional awards are directed at especially opportunistic or otherwise egregious forms of behavior, one can reasonably hope that the benefits of district judges' flexibility in deploying case-specific expertise are especially high. District judges' extended exposure to the developing details of cases arguably puts them in the best general position to assess when exceptionally bad behavior has occurred.[147] Further, the retention by district judges of substantial discretion to punish such behavior might be the best way to encourage proper conduct through extended pretrial and trial processes.[148] In 2016, Justice Breyer rightly flagged that the Federal Circuit's special "experience and expertise" in patent litigation might sometimes give the circuit strong reason to overrule a district judge's assessment of the

---

[144] *Cf.* Rendleman, *supra* note 6, at 1451 (noting that an equitable remedy is, "in the case of a personal order, managerial"); Suzanna Sherry, *Logic Without Experience: The Problem of Federal Appellate Courts*, 82 NOTRE DAME L. REV. 97, 148 (2006) (criticizing various decisions by appellate judges for exhibiting "a heedlessness of consequences of the doctrine for the real world of litigation").

[145] *Cf.* Jeanne C. Fromer, *District Courts as Patent Laboratories*, 1 UC IRVINE L. REV. 307, 308 (2011) (discussing how district courts might act "as patent laboratories for tailoring patent law to promote innovation in their particular clustered technologies or industries").

[146] *Cf.* Rendleman, *supra* note 6, at 1451 (observing that the U.S. Supreme Court has emphasized that "punitive damages are discretionary with the factfinder").

[147] *See* Rosenberg, *supra* note 6, at 183 (describing the fact that a district judge "'smells the smoke of the battle'" as "the chief and most helpful reason for appellate court deference to trial court rulings").

[148] *See* Sherry, *supra* note 6, at 98 ("Reduced discretion … reduces courts' ability to police the behavior of lawyers and litigants, increasing incentives for misbehavior …."); *cf.* Henry E. Smith, *The Equitable Dimension of Contract*, 45 SUFFOLK U. L. REV. 897, 904 (2012) ("[I]t can be more cost-effective to use simple rules backed up with discretion to punish abuse of the rules ex post than to try to close off every loophole ex ante.").

exceptional nature of party behavior.[149] Nonetheless, given the general advantages of substantial district court discretion in awarding the comparatively exceptional remedies of enhanced damages and attorney fees, the Federal Circuit seems sensibly restricted to policing such awards through review for abuses of discretion that the circuit's experience and expertise might help identify.

Analysis of the relative costs and benefits of discretion with respect to standard compensatory damages is different. The regularity of such forms of damages makes it likely that uniformity, predictability, and administrative-cost concerns will loom large. The fact that the jury, not the trial judge, will often be the primary assessor of these damages somewhat dilutes justifications for discretion based on trial court expertise and also opens a window for appellate review of district court jury instructions. Nonetheless, if a form of compensatory damages is ill defined in the sense that there is little consensus on specific best practices for calculating it, justifications for substantial trial court discretion remain strong.[150] Lack of clarity on specific best practices imposes limits on the useful guidance that an appellate court can provide, and opportunities for trial-level experimentation can enable better and ultimately best practices to emerge. In recent decades, such flexibility has yielded acceptance of new arguments in favor of recovery of lost profits[151] and against the proposition that lost profits have been adequately proven.[152]

Nevertheless, appellate courts or legislators can still do much to improve district courts' exercise of discretion by providing principles and illustrative markers to guide trial court discretion.[153] An example comes in the form of the oft-cited *Panduit* test that, under appropriate circumstances, provides guidance on when a patentee has adequately proven lost profits based on lost sales.[154] This test requires that the patentee show "(1) demand

---

[149] *Halo*, 136 S. Ct. at 1938 (Breyer, J., concurring) ("I also believe that, in applying [the abuse-of-discretion standard of review], the Federal Circuit may take advantage of its own experience and expertise in patent law.").

[150] *Cf.* Rendleman, *supra* note 6, at 1408 (observing that discretion can operate when "decisions cannot be determined in advance by a rule because there is no clear right or wrong").

[151] *Rite-Hite*, 56 F.3d at 1545–49 (affirming district court award of lost profits based on lost sales of nonpatented products).

[152] *See, e.g.*, *Grain Processing Corp. v. American Maize-Products Co.*, 185 F.3d 1341, 1349 (1999) (affirming district court determination that patent holder "could not prove lost profits" given the availability of "an acceptable substitute for the claimed invention").

[153] *Cf.* Rendleman, *supra* note 6, at 1450 ("An appellate court should not substitute statements of equitable discretion for developing standards and precedent.").

[154] *See* Peter E. Strand, *Back to Bedrock: Constitutional Underpinnings Set 'New' Standards for Patent Infringement Causation*, 8 B.U. J. SCI. & TECH. L. 375, 400 (2002) ("Courts, including the Federal Circuit, have repeatedly characterized the *Panduit* factors as a useful,

for the patented product, (2) the marketing and manufacturing ability to exploit the demand, (3) an absence of acceptable noninfringing substitutes, and (4) the amount of profit the patentee would have made."[155] Administration of a standard compensatory award such as lost profits can benefit from articulation of such guidelines.

For reasonable royalties, appellate courts might aid district courts by better articulating fundamental principles. An example is the principle that such a royalty should not reflect "holdup value" that has no substantial tie to the technical contribution or function of the patented invention.[156] The general instruction that a reasonable royalty is to track the expected results of a hypothetical negotiation at the time just before the beginning of infringement[157] might implicitly intend to implement this principle, but because a party might, for example, build a new factory and thus subject itself to holdup for the value of later manufacture even before infringement begins, the "just before the beginning of infringement" instruction is at best an imperfect prescription.[158] Appellate explanation of how the holdup concern should inform reasonable royalty analysis, whether in terms of the hypothetical negotiation's timing or otherwise, would improve the state of the law.

The Supreme Court and Federal Circuit can also provide helpful guidance through the illustrative correction of aberrant individual trial-court decisions and the sometimes simultaneous establishment of micro-rules. As discussed in Subsection II.A.2, the Federal Circuit's recent case law on reasonable royalties has substantially this flavor.[159] Given the uncertainty remaining about how this area of law should develop and what challenges it will face over time, the courts would seem reasonably prudent in following this sort of incremental approach, one that leaves much room for continued innovation.

'but not exclusive,' test for determining 'but for' causation of lost profit damages."); *cf.* 7 CHISUM, *supra* note 72, § 20.05[2][e][i] (characterizing the *Panduit* test "as [describing] prototypical situations in which the patentee is likely to carry the burden of establishing causation" of lost profits).

[155] Kaufman Co. v. Lantech Inc., 926 F.2d 1136, 1141–42 (Fed. Cir. 1991).

[156] *See* William F. Lee & A Douglas Melamed, *Breaking the Vicious Cycle of Patent Damages*, 101 CORNELL L. REV. 385, 389 (2016) ("[R]easonable royalty patent damages should be based on the ex ante value of the patent and should exclude any ex post considerations such as lock-in costs.").

[157] *See supra* text accompanying notes __.

[158] Lee & Melamed, *supra* note 156, at 426 ("What is clear … is that the date is set in many cases after the infringer has taken steps that have caused it to be locked in to the patented technology.").

[159] *See supra* text accompanying notes __.

4. The Question of Federal Circuit Discretion

Supreme Court justices have sometimes suggested that they should or might give some level of deference to the Federal Circuit in its development and application patent law.[160] The Supreme Court appears never to have formally accorded the Federal Circuit such deference, however. Nonetheless, as long as the Supreme Court shows restraint in granting merits review of Federal Circuit decisions and also in filling in legal gaps left by Congress when the Court conducts such review, the result is a large amount of quasi-authoritative discretion for the Federal Circuit, which remains the primary, day-to-day expositor of U.S. patent law.[161]

This outcome, in which the Federal Circuit has much generally effective discretion but is still subject to the occasional bout of plenary Supreme Court review is awkward but might nonetheless be a substantially healthy way of balancing the value of the Federal Circuit's relative expertise and intellectual engagement in patent law with the dynamic value of review by a well-resourced court with a distinct docket and institutional focus.[162] A qualification is that there is always the danger that the Federal Circuit will overstep—for example, by encroaching excessively on district court decision-making in situations where the district court's immersion in the everyday facts of a case gives it the decision-making edge.[163] The Supreme Court's interventions to abrogate Federal Circuit strictures on district court awards of attorney fees and enhanced damages[164] might be understood as efforts to enforce the proper institutional balance. As long as the Supreme

---

[160] *See, e.g.*, Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 20 (1997) ("The Court leaves it to the Federal Circuit's sound judgment in this area of its special expertise to refine the formulation of the test for equivalence in the orderly course of case-by-case determinations."); Dickinson v. Zurko, 527 U.S. 150, 171 (1999) (Rehnquist, C.J., dissenting) ("In making this determination, I would defer … to the Court of Appeals for the Federal Circuit, the specialized Article III court charged with review of patent appeals."); United States v. Fausto, 484 U.S. 439, 464 n.11 (1988) (Stevens, J., dissenting) ("Because of the unique character of the Federal Circuit, its conclusions are entitled to special deference by this Court.").

[161] *See* John M. Golden, *The Federal Circuit and the D.C. Circuit: Comparative Trials of Two Semi-Specialized Courts*, 78 GEO. WASH. L. REV. 553, 573 (2010) ("[E]ven substantial Supreme Court involvement with substantive patent law does not require that the Federal Circuit lose its role as the principal day-to-day shaper of United States' patent jurisprudence.").

[162] *See generally* Golden, *supra* note 143. *But cf.* Rebecca S. Eisenberg, *The Supreme Court and the Federal Circuit: Visitation and Custody of Patent Law*, 106 MICH. L. REV. FIRST IMPRESSIONS 28, 33 (2007) (warning that "[t]he Court's general admonitions to avoid the use of rigid and mandatory formulas will more likely change what the Federal Circuit says than what it does, making the Federal Circuit's decisions more opaque and harder to follow").

[163] *See supra* text accompanying notes __.

[164] *See supra* text accompanying notes __.

Court neither grossly oversteps nor grossly neglects its responsibility to oversee this balance, the cumulative work of the courts might reasonably navigate the patent system's somewhat ungainly divisions of institutional authority and expertise.

CONCLUSION

United States patent law effectively gives the courts substantial discretion in awarding monetary relief in patent cases. Recent Supreme Court decisions have emphasized that, under the U.S. Patent Act, much of this discretion properly lies with the district courts. This Article suggests that there is good reason for such allotment of discretion to trial judges, perhaps most particularly with respect to the exceptional remedies of attorney fee awards and enhanced damages. But there is still much for the Supreme Court, Federal Circuit, and Congress to do to limit needless district court errors and disuniformity. The Federal Circuit in particular can use its decisions in individual cases to improve the articulation of general principles, develop micro-rules that fence off specific bad practices or require specific good ones, and provide illustrative examples of proper or improper exercises of trial-level discretion.